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ORIGINAL LECTURES.

CLINICAL LECTURE
ON A CASE IN WHICH THE TREPHINE WAS
SUCCESSFULLY USEDFOR A PUNCTURED FRACTURE OF THE SKULL;
AND ITS BEARINGS ON THE RULES FOR TREPHINING.

By FURNEAUX JORDAN, F.R.C.S.,

Surgeon to the Queen's Hospital; Professor of Surgery at
Queen's College, Birmingham; Consulting Surgeon to the Women's
and the West Bromwich Hospitals.

THE remarkable case before you, in which life and intellect were clearly saved by the use of the trephine, offers a convenient opportunity for taking a general view of the utility of trephining. This young man, B. D. (aged twenty), was awaiting his turn to enter a theatre when a slate from a roof (forty feet high) fell on to his head and severely injured it. He walked to the hospital next morning with a scalp-wound a little above the middle of the right parietal bone, which contained brain-substance, and which was affected by respiratory movements. Examination brought to light a compound cut, comminuted, and depressed fracture. There was marked hemiplegia on the left side, more especially in the forearm and hand and in the ankle and foot. The tongue when put out was directed to the left side. He was taken into the hospital, and within an hour the trephine was used. Eight pieces of bone were removed, varying in size from a little less than a sixpence to a little larger than a shilling, with, in addition, a strip of felt hat and a separate strip of paper lining, both the width of an ordinary blue slate, and an inch in length, and both deeply embedded in the brain-substance. The soft parts were lightly adjusted without stitches, or strapping, or pads, and directly covered with a sponge which was kept constantly moist with terebene and water. Occasionally the ragged brain surface was gently moistened with pure terebene. For several days there were frequent paroxysms of clonic spasms on the left side. He lay on the left side with his knees drawn up. After a few days hernia of the brain appeared, which was left to gentle antiseptic sponge-pressure and the later cicatrising forces. His recovery has been favourable, and he will shortly leave the hospital.



Having put together the salient features of the case, we will now review them with such comments as may point to the lessons they teach. The steps of the operation of trephining need not detain us now. The instrument was, of course, fixed on a sound margin of bone. The fragments were removed with the utmost gentleness, but a firm hand was needed for some fragments, and other fragments were seated very deeply. The inner table of the skull, as is the rule in fractures made by pointed, or edged, or sharply cornered bodies, was more extensively broken than the outer. An irregularly oval gap running forwards and downwards, and lying mostly behind the line drawn from ear to ear, was left in the upper half of the right parietal bone, measuring about two inches in length and rather more than one in breadth. The membranes were much torn. As much blood-

stained brain and blood-clot as would fill a walnut-shell escaped before and during the operation. The depth to which the brain-substance was injured must certainly have exceeded an inch. The bit of felt hat was quite an inch deep in the brain, and only the trephine disclosed its presence. The not improbable existence of foreign bodies in punctured and other compound fractures, where the meninges are pierced, is an additional ground for trephining.

During the few days which followed the operation he vomited occasionally. For several days the left arm seemed quite powerless. The clonic spasms diminished in frequency, and ceased on the fifth or sixth day. The pupils were not affected. He never lost his consciousness, but during one or two nights there was slight wandering. His temperature varied from 99° to 101°. His pulse came down from 120° on the second day to 99° on the third day. Except the hernial protrusion there were no signs of inflammation or other change in the wound. Having described his condition during the first few days, I will briefly summarise the weeks of his recovery. The brain-surface granulated cleanly, the corners of the scalp smoothed down, and the hernial protrusion gradually subsided as the cicatrising margins closed over it. Look now at this scar. The former hernia has become a deep depression—a fortunate depression, as it is his best protection against injury. The scar is thin, and consists of the membranes of the brain and the scalp tissues, which have merged into one common layer of connective tissue, over which the epidermis of the neighbouring skin has grown.

On three occasions during his convalescence we were made uneasy by a temporary rise of temperature. On the third occasion the thermometer reached 104°, and was attended with great listlessness. The formation and the confinement (one or both) of a few drops of pus in or near the thin scar and under a small scab explained these alarms.

We will now look at the paralysis. From the first day, the tongue when put out turned to the left. The condition of the upper limb has all along improved, and at present the impaired movement is chiefly seen in the forearm, wrist, and fingers; the power of supination and pronation is very feeble in the wrist and fingers; flexion is enfeebled, but extension is much more so. In the lower limb, flexion and extension of the knee are not much affected; but the extensors of the toes, which are, I need scarcely say, also the flexors of the ankle, are much weakened. The heel is slightly elevated, and when he first began to walk he threw the lower limb forwards with a kind of semicircular outward swing; gradually this movement has become more of a jerk, such as is seen in the slighter forms of equine talipes which are left after infantile paralysis. His water required to be drawn on one occasion only, on the third day.

With all this favourable recovery I must not conceal from you the fact that his future is not altogether an unclouded one. When I stated the chief facts of the case to perhaps the most eminent English authority on nerve pathology, he expressed a fear that our patient would some time become the subject of one-side-beginning epilepsy. The young man, who is naturally of a quiet, simple, good-natured temperament, is thought to be a little, but only a little, less mentally capable than he formerly was.

The dressing you have seen used in this case is worth your attention and criticism. From first to last a very soft Turkey sponge constantly moistened with terebene-and-water was kept with gentle pressure upon the wound. It took up a little serum and blood at first, and afterwards a few drops of healthy pus. Nothing remained or decomposed in the wound. Any attempt during the process of repair to substitute oiled lint or other dressing was uniformly followed by some foetor in the wound, and as uniformly by some rise of temperature.

Our patient you see is well, yet recovery in such cases is rarely seen. It is very likely that several circumstances contributed to the fortunate result: the patient is young; he has an unexcitable nervous system—a most important factor in shock or in inflammation; the operation was done quickly, before inflammation of brain or membranes could set in; the gentleness in every step of the operation and the character of the dressing had also their share of influence.

Let me now say a few words on the general question of trephining. In one lecture we cannot at all fully review the subject; nevertheless, advantage must be taken of single cases to throw light on general principles. There is one

law touching the use of the trephine about which there is no difference of opinion. Being an important, clear, and undisputed law, it should, I think, be put first and separately; our case falls under it. In cut or punctured fractures where there is necessarily a scalp-wound, where the meninges are pierced and bits of bone stick in the brain, whether there are "symptoms" or "no symptoms," trephine immediately. It is true our young man had some hemiplegia, but if he had had no hemiplegia the treatment would have been the same.

I have just used the word "symptoms." Let me say here and at once what we mean by "symptoms," and the equivalent expression "symptoms of compression." There is a multitude of anomalous and very momentous phenomena, also, which do not concern us now. We do not speak of shock, or insensibility, or vomiting, or local paralyses, or partial paralyses, or convulsive movements, or restless flexion movements, or delirium, or fever, or high temperature, because we are not speaking of stunned, or bruised, or torn, or inflamed brain. By "symptoms" we mean a clear and persistent *paralysis* of one side of the body. This hemiplegia is associated with coma, and both are due to undoubted pressure on the brain—pressure of bone, or blood, or inflammatory products. I am in the habit of using brief phrases to denote the varieties of compression of the brain, with their hemiplegia, and coma, and perhaps stertor and whiffing of the cheek. The expressions "paralysing bone-pressure," "paralysing blood-pressure," "paralysing pus-pressure," seem to have the merit of combining definition and diagnosis. Let me remind you that paralysing bone-pressure appears instantly with the injury, that paralysing blood-pressure comes on in a few hours with reaction, and that paralysing pus-pressure comes on after a few or many days with high temperature and fever.

In this lecture I desire to deal with leading principles chiefly, and also more particularly with those which bear on fractures of the skull where there are perforating bone fragments or paralysing bone fragments—in short, on the position, characters, and probable effects of broken pieces of skull. A number of minor details cluster round the leading features of head-injuries. I scarcely regret that I am forced to neglect them to-day. When the anxious moment arrives of action or no action, he is the fortunate man in whose mind essential principles come to the front undimmed by relatively unimportant details.

The when-to-trephine propositions of authors embody much difference of opinion, but as they reflect our present knowledge it is well that I should bring them before you; and remember they relate to the adult skull (with its diploë and laminae) only. In simple depressed fracture with symptoms—trephine; in compound depressed fracture with symptoms—trephine; in compound depressed fracture without symptoms—some surgeons trephine, others do not; in punctured and cut fractures, with or without symptoms—trephine; in fracture followed by hæmorrhage from a meningeal trunk, with symptoms—there is much difference of opinion; in fracture followed by symptoms of pressure from inflammatory products—there is also great diversity of teaching; in the remoter irritating sequelæ of fracture, epilepsy especially—trephining has hitherto been very rare. Indeed, as a matter of fact, trephining is rarely resorted to, either for paralysing blood-pressure, paralysing pus-pressure, or for the later results of fracture. We naturally expect that opinion and teaching vary where the problems they deal with are extremely obscure. The locality of the head-injury, its characters, its extent, its implication of adjacent parts, its complications, its accessibility, the possibility of removing the causes of "symptoms," are matters so grave and enigmatical as to tax the most instructed and experienced judgments. The judges also are not alike. Here is one who takes a sanguine view of cases, and trephines frequently; there is another who takes gloomy views, and never trephines. One class of teachers I warn you against—namely, those who in ambiguous matters dogmatically lay down laws as if there were no ambiguity and no difference of opinion. For example, one authority says: "In suspected clot between the bone and dura mater, even if there be no wound and no sign of fracture, trephine over the meningeal artery." He gives no hint that others not only differ from him, but even go so far as to contend that if there are signs of a fracture and a wound, as well as evidence of such a clot, it is undesirable to trephine, because the coagulum is so diffused, so difficult to remove, and so frequently dips into the base of the skull. In

surgical affairs, gentlemen, as in all the affairs of life, your opinions need not be the less strong because you clearly see, fairly state, and justly appraise opposite opinions.

Strictly speaking, there are only two principles touching the operation of trephining on which surgeons are agreed: trephine in cut and punctured fractures, and trephine when depressed bone causes hemiplegia and coma. In the several injuries of the head which destroy life in different ways and at different times I wish it were possible so to strip off collateral and minor circumstance, and so to strip off controversy, that the trephining formulæ might be simplified and reduced in number. In cases of paralysing pressure—of bone, or blood, or pus—possibly increasing knowledge will enable us to adopt, say, this proposition in lieu of several: trephine in hemiplegia and coma when they are the results of traumatic causes which can be known in time, be got at, and which can be removed.

The operation of trephining is, no doubt, in itself a very serious wound; but in performing it we hope to change a fatal into a serious wound—a hopeless wound into one not hopeless.

I go on to look, from a point of view suggested by my own experience and reflection, at the classes of cases in which the trephine must or may be used. And I cannot but think that the order of such classes should be mainly decided by the urgency and the clearness of the need for operative action.

The first class of cases in which the trephine should be used stands alone—the "perforating bone" class. Symptoms are not considered. Cut and punctured fractures are necessarily compound, and fragments piercing the membranes lead to most serious results. I think it would simplify classification and improve treatment if this class were made more comprehensive. It is not desirable to look merely at the sharpness of the edge or point of the injuring body, but at the nature of the fracture. Was the body which broke the skull *sharp enough* or *pointed enough* to drive bits of bone through the membranes into the brain? The importance of this question we shall shortly see. Detached pieces of bone are practically foreign bodies; but other foreign bodies, in cases of fracture with perforating bone or paralysing bone, occasionally need to be removed.

The second class is that of paralysing bone-pressure (whether the fracture be simple or compound is unimportant) where hemiplegia is unequivocal and persistent. Another class, if it can be called a separate class, is that of depressed and exposed bone without paralysis—the "compound depressed fracture without symptoms." Here teaching differs greatly. Here also is seen the pertinence of the question I have just put—Was the injuring body so edged, or pointed, or cornered, that the in-driven fragments pierced the meninges? If they were, why not put these cases in the first category—viz., that of punctured fractures? One of three things will happen in compound fracture of the skull: the broken bone presses and paralyses—if so, trephine; or the broken bone perforates the membranes—if so, also trephine; or it will do neither, and no operation is needed. In other words, exposed and even depressed broken bone may neither perforate the membranes nor cause paralysis by pressure. Remember that I am not describing all the injuries, or indeed all the fractures, of the skull now; I confine myself to those which involve the question of trephining. With respect to these compound depressed fractures which do not paralyse, I would, discarding the terms "cut" and "punctured," or giving them a larger meaning, at least suggest this guiding principle: lean the more to the use of the trephine the more reason there is to suspect perforation of the dura mater. Whether the dura mater is injured or not is all-important. There may, however, certainly be some degree of indented and depressed bone without either laceration of membranes or paralysing pressure. In deciding this point the degree of inclination, size and shape of the fragments, the presence or not of brain-substance in the wound, and the gentle use of a fine probe, will give us great help. In otherwise doubtful cases Sir James Paget gives a valuable suggestion: the trephine can be more easily dispensed with in the earlier than in the later half of life.

A third class is that of paralysing blood-pressure. Here, after a fracture has torn a meningeal trunk, effusion between the bone and dura mater comes on in a few hours with reaction, and, if abundant, leads to paralysis of the opposite side. If I were at hand when hemiplegia and coma were clearly

coming on after an interval of consciousness, I should seriously think of tying the common carotid on the injured side. Later on I should side with those surgeons who in desperate cases would trephine at the fractured fissure (as it may only be), and who, if no wound were present and no fracture could be found, would make an exploratory incision in search of it. If we do not remove all the clot we may so increase the capacity of the skull-cavity as to give sensible relief. In this as in the other classes of cases needing the trephine we are certainly justified in regarding the operation as a different and a safer one when performed under antiseptic precautions. With such precautions I should venture to remove bone more freely in attempt to remove clot.

The fourth class is that where there is paralyzing pressure from inflammatory products. Of all the cases where it is proposed to use the trephine these present the greatest difficulties—difficulties touching the locality and extent and complications and results of the inflammatory process. Even an "opposite hemiplegia," a defined fracture, and a puffy tumour are uncertain guides, and the operation can only be advised in quite exceptional cases.

The fifth class of cases, where there are later sources of irritation leading to epilepsy and enfeebled intellect, is one where, with antiseptic dressing and clearer diagnosis, there is a prospect of the more frequent use of the trephine. While I revise these notes, my colleague, Mr. West, has in the hospital a case which strikingly demonstrates the utility of the trephine (with Listerism in his case) in hopelessly progressive epilepsy.

Thus we have some nearly half-dozen cases in which the trephine may or must be called for: when bone-fragments clearly perforate, when bone-fragments hopelessly paralyse, when blood paralyse, when pus paralyse, and when at a later period bone fragments irritate. These classes may further be said to fall under three leading principles which regulate the operation of trephining—namely, where pieces of bone pass through the meninges and enter the brain, where there is paralyzing pressure of bone, or blood, or pus, and where later sequelæ threaten intellect and life.

Let my last remark be to remind you that antiseptic methods of treatment promise to have important bearings on the operation we are discussing and to greatly widen the sphere of its utility.

ORIGINAL COMMUNICATIONS.

ON THE TEMPERATURE IN RELAPSE OF TYPHOID FEVER.

By J. PEARSON IRVINE, B.Sc., M.D., F.R.C.P. Lond.,
Assistant-Physician to Charing-cross Hospital, etc.

(Continued from page 587 of last volume.)

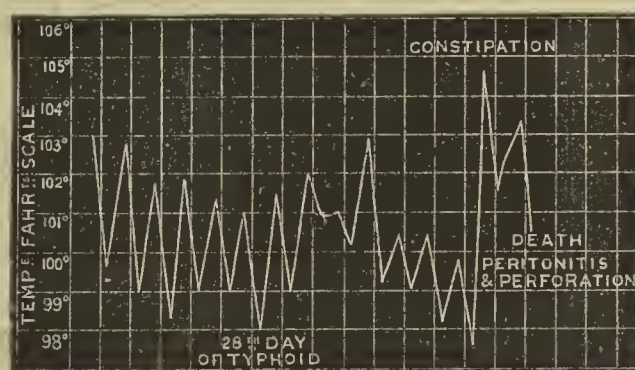
In my last paper I related instances of recrudescence and of fatal relapse. The subjoined cases are, it seems to me, well worthy of comparison with them, especially the doubtful example of primary fever or relapse ending in death, and that of relapse which might easily have been confounded with what we term recrudescence. The cases are additional proof of the uncertainties which surround the progress of "convalescence" in typhoid fever.

Case 23.—A male, aged twenty-one, a travelling tinker, was admitted into Charing-cross Hospital on May 24, 1878, and had then undoubted symptoms of typhoid. His account of his disease was necessarily uncertain, and I quote the case by way of comparison, rather than as an undoubted instance of relapse. The man died of his disease, and it is interesting to examine his case with the fatal or dangerous relapses already recorded. At the time of admission he had been for ten days seriously ill, and for a week suffering from offensive diarrhoea, occasional vomiting, weariness, headache, and downright prostration. He ascribed his illness to bad smells from an ill-regulated drainage-pipe immediately beneath the window of the room he slept in, and knew of no possible source of contagion from another individual. His manner of life was of course not calculated to fit him to meet an acute disease, but he was not a dissipated man.

When admitted his temperature was 102.5° Fahr., and on the same evening 104° Fahr. On the next evening it was

again 104° Fahr., and on the third evening after admission 103° Fahr. Afterwards the temperature subsided, with daily evening remissions, and with large curves such as are met with in the last week of typhoid, and on the twenty-eighth day of the fever (?) the temperature was only 98° Fahr. The patient had shown symptoms of danger. His pulse had averaged no more than 104, and his respirations about 36, but he had frequently been delirious, and could not sleep because of an annoying cough. He had complained also of thirst out of proportion to his fever, and of sore throat. There had been also alarming perspirations without explainable cause. Diarrhoea was absent, but the typhoid eruption was marked enough to justify a diagnosis. The patient was taking a mixture containing hydrochloric acid as its chief ingredient.

The course of the temperature from the twenty-eighth day (?) of the attack to the fatal termination is worthy of careful inquiry. The temperature ran up (with marked daily remissions) from 98° Fahr. to 103° Fahr. on the fourth evening. Thence it fell daily to 97.8° Fahr. on the eighth morning of the new accession of fever. The patient at this time was taking six grains of quinine daily, and his bowels required simple enemata. The same day the temperature suddenly rose from 97.8° Fahr. to 104.6° Fahr., this elevation of nearly seven degrees occurring in less than twelve hours. There were signs of peritonitis at this time. The temperature abated, and on the tenth day from the twenty-eighth of the primary attack it descended rapidly to 100.4° Fahr., when the patient died in the forenoon (twenty-one days after his admission into hospital). It is quite possible that the second period of fever in this case was due to relapse modified by lesions lingering after the primary disease. Post-mortem were found peritonitis and perforation of the intestines. The conditions were in no way unusual and require no detailed description.



Case 23: FATAL CASE OF RELAPSE (?) (a male, aged twenty-one).—Admitted at beginning of third week of typhoid. On the twenty-eighth day the temperature was 98° Fahr.; then came a rise of temperature to 102.8° Fahr. on fourth day (thirty-second of disease); followed by a fall to eighth morning, 97.6° Fahr. (thirty-sixth day of disease). A sudden elevation on this day to 104.8° Fahr. (in twelve hours about seven degrees). The temperature then fell to 100.4° Fahr. on the tenth morning (thirty-eighth day of disease), when the patient died of perforation of bowel. Doubts as to whether relapse occurred. (*Vide text.*)

Case 24.—A female, aged eleven years. This child was admitted into Charing-cross Hospital on July 29, 1878, and though no history to be depended upon could be obtained, there was not the least doubt that she was suffering from typhoid fever. It was surmised that she was in the fourth week of an attack of this disease, and a [mixture containing dilute hydrochloric acid was prescribed. On the evening of admission the temperature was a little below 104° Fahr.; and for the following six days it every evening exceeded 103° Fahr., though there were daily deep remissions. The temperature curves in many respects resembled those of a typical fourth week in typhoid, and during the time the bowels were constipated. On the eighth morning after admission the temperature was 99.8° Fahr., and constipation persisted. On this day a relapse set in, and nothing but the thermometer could have proved its occurrence. The temperature ran up from 99.8° Fahr. to 104° Fahr. on the fifth day, but, as will be seen from an examination of the chart, the morning remissions during these five days greatly resembled those met with in primary and uncomplicated typhoid fever. On the fifth, sixth, and seventh days of relapse the temperature was about 104° Fahr., and the patient's condition was far from satisfactory; but a fall occurred on the eighth day, and on the tenth morning the temperature was only 100° Fahr. Constipation still continued; and from the tenth day to the fifteenth was another exacerbation of temperature. However, on the

twentieth day the temperature was only 98° Fahr., and the disease seemed to be at an end. There was nothing in the general condition of the patient which indicated the probability of further relapse, but for four days the temperature daily approached 100° Fahr., and though this slight degree of fever did not point to danger, it proved that the disease was not at an end. Another relapse, in fact, set in, and its highest temperature (102° Fahr.) was reached on the fifth day. On the eighth morning the temperature was only 99° Fahr., and on the eleventh morning only 98° Fahr. But the fever of this relapse did not termi-

nate until the twenty-first day, and was irregular in many respects from first to last, as will be seen by an examination of the appended chart. The patient afterwards made a good recovery. The case is of interest in many directions. I venture to think that the first relapse was of the intercurrent kind, and that the slight pyrexia which persisted after it for four days was due to irregular progress of the intestinal lesions. Such irregular progress probably influenced the temperature of the second relapse; and here again irregularity rather than high temperatures pointed to possible dangers and directed the treatment.

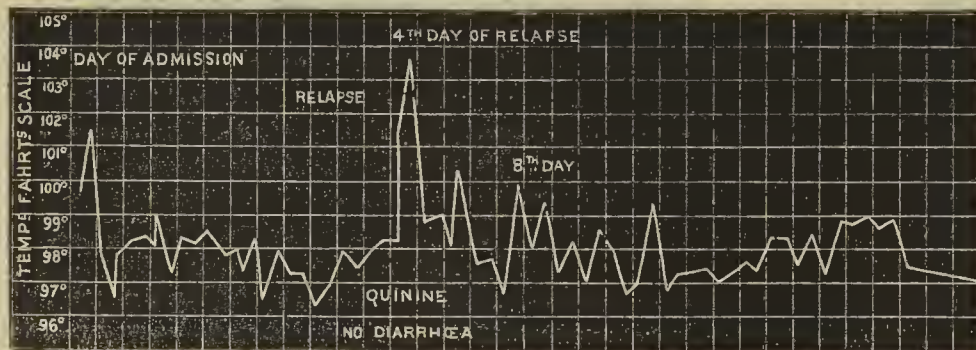


CASE 24: INTERCURRENT AND SECOND RELAPSE OF TYPHOID FEVER (a female, aged eleven years).—In the fourth week of primary attack an intercurrent relapse began. Temperature rose from 99° 8' Fahr. to 104° Fahr. on the fifth day, and remained at about 101° Fahr. for three days, with bad symptoms. Fall on ninth evening to 100° Fahr., followed by new accession of fever to fifteenth day, and gradual fall to twentieth day of relapse. Then a four days' interval, in which temperature approached 100° Fahr.; after which occurred a second relapse marked by much irregularity of fever. (*Vide text.*)

Case 25.—A boy, aged ten years, was admitted on June 8, 1878, and was one of several brothers who suffered from typhoid fever. The beginning of his illness was obscure, as often happens in typhoid cases, but when first seen he had been suffering from diarrhœa for a fortnight at least. He was doing well when brought to the hospital. Shortly after admission he began to complain of abdominal pains, but no spots could be found, nor was there any diarrhœa. His temperature on the day of admission was 101° 4' Fahr., but next morning it was only 96° 4' Fahr., and his typhoid attack was to all appearances at an end. For eight days the temperature was normal or subnormal, but there were irregular fluctuations not common in convalescence from typhoid. On the tenth day from admission a new fever began, and from 96° 2' the temperature ran up, with slight intermissions, to 103° 6' Fahr. on the fourth evening (more than seven degrees).

There was no diarrhœa, the bowels being moved only on the first day of this exacerbation. A grain of quinine was given every four hours, and on the next evening the temperature was only 99° Fahr. On the eighth morning the temperature was as low as 96° 6' Fahr.; and though there was a new accession of fever, the disease terminated in an uninterrupted convalescence. There was always a tendency to constipation, but such stools as were passed had the true typhoid characters. The relapse was irregular as regards temperature (and possibly quinine had much to do with this), but lasted about twenty-one days. The boy was doing so well at the end of twenty-one days that no further records of his temperature were kept. He was fifty-five days in hospital.

By way of contrast and comparison, "mild" cases of relapse become exceedingly valuable. Their irregularities are often more difficult of explanation than those of severe cases. In this particular instance there was absolutely nothing except the temperature which could serve as a certain guide to the clinician. It furnished a chart, which, taken with others, showed that the patient was suffering from relapse, and not from any accidental complication. I do not regard this case, after careful examination, as an example of "recrudescence"; and the more perfect our knowledge of the after-fevers of typhoid becomes, the more shall we be convinced that "recrudescence" is but an abortion, so to speak, of relapse. This is a question of great practical importance. In this patient's case, if it was one of relapse, there must have been a constant source of danger for weeks, though to all appearances he was doing well. The thermometer revealed these hidden dangers, and guided the treatment.



CASE 25: RELAPSE OF TYPHOID SIMULATING A RECRDESCENCE (a boy, aged ten years).—Admitted at end of primary typhoid. Relapse began after eight days' interval of apyrexia. Temperature ran up from 96° 2' Fahr. to 103° 6' Fahr. on the fourth evening of relapse. Thence it fell, with slight interruptions, to 96° 6' Fahr. on the eighth morning. A new accession of fever followed, which ran an irregular course, but terminated on the twenty-second day of the relapse. Quinine was commenced on the fourth day, and possibly modified the temperature. There was no diarrhœa, and the general symptoms were mild. Careful examination of the chart shows that the case was not one of recrudescence.—(*Vide text.*)

(To be continued.)

ON THE TREATMENT OF THE CAPE DIARRHŒA AND DYSENTERY.

By BRINSLEY NICHOLSON, M.D.,
Deputy Inspector-General, Retired List.

BEFORE entering upon this subject I would make four introductory remarks:—1. Neither the local nor the general symptoms during life, other than the evacuations themselves, are as marked as might be expected; there is less local pain or tenderness, and less effect on the skin, pulse, and tongue, than the intensity of the disease set-up might be supposed to evoke. Indeed, I would say generally that local disease

in the Cape is more masked, and causes less marked general symptoms than such seemed to produce when I was a student at home. Possibly, however, though my service of twenty-five years involved twenty-two years abroad, I might say that in this respect disease has universally changed its character. 2. That I am unable to give a more minute account of the pathological appearances after death, I regret; but my memoranda are lost. It must suffice, therefore, to say that in various careful examinations there were found—no disease of any particular structures, no signs of any specific disease or deposit, nor any necessary ulceration of the glands or other parts, specific or otherwise. The appearances were apparently such as have been depicted in representations of inflammatory action in the great intestine. 3. I would, however, ask the reader not to prejudge my

treatment by his own experience of dysentery unless he has treated it at the Cape, for a varied service has proved to me that "dysentery" is as generic a term as "fever." In other words, the dysentery of one place may be as different from the dysentery of another as are measles, scarlet fever, and small-pox, and that to comprehend them under the one simple term "dysentery" is a mistake as great as when, in old times, measles and scarlatina were held one and the same. 4. While, however, I could find nothing specific either in the course of the disease or in its pathological appearances after death, I would say that the disease is almost unknown in peace time except in its diarrhœal form, and that to no great extent; yet in time of war, when the men are of course exposed to all climatic influences, and, as a rule, necessarily poorly and badly fed (I speak as to quality, not quantity), it assumes an endemic and quasi-epidemic character; and on the Cape frontier, formed, with a mild form of continued fever, the staple of our diseases. Out of 150 cases at one time under my charge in a depôt hospital at King William's Town, over one-half were dysenteric, while on other occasions the proportion was greater. Lastly, by way of parenthetical remark, I would say that whatever may be the case now, or at Natal, I never, during ten years' experience, saw or heard of a case of true typhoid, or of ague or remittent fever.

The Cape dysentery, if taken in time and properly treated, is, as a rule, very tractable, and I now proceed to speak of its general treatment under the three heads of—I. Diarrhœa; II. Mucous or Slimy; and III. Bloody Dysentery.

I. *Diarrhœa*.—I include this because the commonest observation shows that this in the Cape is not a different disease nor a disease of a different part of the intestinal canal, but merely the first form of what may afterwards pass into dysentery. The formula almost universally successful was—Acetat. plumbi gr. iv., pulv. opii gr. $\frac{1}{4}$. No good, but rather disadvantage, resulted from increasing the amount of opium, though the quarter of a grain was decidedly useful. As to the acetate of lead, it was the first astringent tried, being convenient and portable, sedative as well as astringent. Nor after various trials did I ever find or hear of any other equal to it, whether mineral or vegetable. The dose, in excess of what is generally laid down, required, however, to be as much as four grains. As an example, I remember giving a child able to walk, but still sometimes carried by its mother, the sufficient dose, as I thought, of two grains twice or thrice a day, but for two days without relief. I then gave three grains with immediate effect. Whether a certain quantity is decomposed, leaving the residue to act, I know not, but it looks as though this might be. There need be, however, as a very plentiful experience has taught me, no fear of lead-poisoning. I never saw but one case where any symptoms showed themselves that might have been indicative of such a result; and the medicine, which had been continued for a long time, having been discontinued, the possible symptoms at once disappeared. Each dose should, as a rule, be given three times a day, and in hospital cases, or in such as would require a hospital were it procurable, medicine left for the night—first, because of the over-long interval; secondly, because the night is often the time when the disease most shows itself. To give nothing at such a time is to allow the disease to resume its sway.

To these remarks on diarrhœa I would, however, make one exception. At the spring or fall, dyspeptic symptoms, even in peace time and in barracks, are often common, but easily met with by the ordinary formula, which in its neater or more expensive form may be set forth in the main as—Tinct. rhei c. Mxx., sodæ bicarbon. gr. x-xx., tinct. gent. vel quassia vel cinchon. 3j. (vel liq. strychnia Mij.), tinct. zingib., etc., q.s.—in fact, Gregory's powder, or a modification of it, with a bitter added. One form of the dyspepsia is noteworthy. The patient eats well, complains of no pain, etc., but immediately after or just before finishing his breakfast he feels a sudden desire to get rid of it, slips to the door, perhaps gets no further if so far, and throws up what he has taken, generally with no pain and little effort, and then sits down as though nothing had happened. Now, sometimes the evacuation appears to occur downwards instead of upwards (though not at that exact time), and in such cases of dyspeptic diarrhœa, not acetate of lead, but lime-water, saccharated lime, or chalk, with some of the ingredients mentioned above, and with or without other astringents, and a little opium, is most useful.

II. The *Mucous* dysenteric stage, where there is pain and straining on evacuation, a passing of slime mingled or unmingled with watery fæces, and accompanied, it may be, with blood or bloody mucus. Here ipecacuan, being through accident almost the only remedy of the kind in my panner, four-grain pills of it answered my purpose admirably. Often it was given every three hours, nor except occasionally—and then only in small quantities, say quarter of a grain—did I find the addition of opium of any advantage. It was taken (if it were taken also with due precaution as to date of meals and the like) without causing sickness or even feeling of sickness. When the case had approached the diarrhœal form, though the dysenteric symptoms and mucus had not wholly disappeared, I sometimes added in advance one to two grains of acetate of lead, and not unfrequently with advantage. Not being at that time aware of the modern practice of giving large doses of ipecacuan, I now regret that I gave them but very occasional trials. However, the four-grain doses were found sufficient in this stage, and I will recur to the subject under the next head.

III. *Bloody Dysentery*, where the symptoms are so aggravated that the evacuations are wholly blood, or of a bloody colour, with, of course, much pain and straining. This may come on at once, or may be preceded by the others. Luckily, as in my first experiences, my cases of the first two forms occurred at points of time agreeing with the numbers I have given them; so I was able to think over this, and be in some measure prepared for it. I had read of the effects of large doses of mercury in Indian dysentery, and could not refuse credence to the experiences and words of experienced and honourable men. My first case was in a not over-strong young woman, of somewhat delicate make, and it came on primarily and very severely. She had, I think, fifteen grains of calomel, with or without one grain of opium. The immediate effect was magical. Doubtful how long the effects would last, I waited too long; and in the afternoon or evening, the symptoms returning, I had to repeat the dose, but gave within an hour or couple of hours, as in after cases I always did, the four grains of ipecacuan, and repeated it every two hours. She recovered readily, but was salivated; but was, after the adoption of the ipecacuan after-treatment, the only one salivated. I give merely the fact of this effect of large doses of mercury in Cape dysentery, because its advantage was constant whenever given, whether in ten or fifteen-grain doses; while the causes for giving it were not very unfrequent. But I would add my belief, after very careful attention to the subject, that this sedative action on an inflamed or irritated intestine is not peculiar to large doses. The calomel pill (L.P.), or small doses of grey and Dover's powders are, I suppose, commonly found, as I have constantly found them, most valuable adjuncts to other medicines in dysentery, diarrhœa, and other diseases, whether in adults or children. Nor can I refrain from making the same remark as to their use in fevers with intestinal affection. In such they restrain or prevent the periodic exacerbations, being given, according to circumstances, with or without a previous small dose of castor oil. There must be very few who have not noticed their effect in typhoid fever, and in its intestinal complications. The reader will, however, understand that in the Cape dysentery I never found it necessary, if it were followed at once by ipecacuan, to give more than one large dose of mercury; that this never salivated the patient; and that there was never any, the slightest, symptom of any ill after-results. Also that when I found what, for want of a better term, may be called irritability of the intestines, and have added a little calomel or grey powder to my usual dose, it has been almost invariably followed with good results. As stated, I regret that I did not more fully carry out the ipecacuan treatment. But on one or two occasions I was led to it, and the results were favourable. For instance, a bad and rather prolonged case, treated by another, had been salivated. Some short time after his discharge from hospital he had a recurrence of bloody dysentery, and being not strong and rather bloodless, I tried him with two four-grain pills of ipecacuan every two or three hours. He recovered satisfactorily, and without the medicine having caused any vomiting or faintness.

I would conclude my remarks on II. and III. by the statement, made as emphatically as I can, that no astringents should be used when there are dysenteric symptoms, except under the circumstances spoken of under II., and then only

carefully and in the slighter cases. When the campaign of 1850-51 was commenced with troops and medical officers new to the country, this treatment was at first tried by several, and with ill results, and most came round to the treatment above spoken of, it being adopted by my surgeon, Dr. Alexander (afterwards, though for too short a time, Director-General). The only case that I saw of hepatic abscess—and any hepatic complication is exceedingly rare—occurred in a not very muscular and somewhat scrofuloid young man, who had been thus ill-treated at the first. He of course died, but I remarked that even after the abscess had formed, occasional large doses of calomel, given when exacerbations of the dysentery occurred, gave immediate and great relief, nor did salivation occur, nor after careful examinations could I find that they had any ill effect either on his local or general state.

Having thus given my general experience, it is unnecessary to detail how these treatments were varied. Neither do I speak of local remedies, nor of diet. But I would add three remarks. 1. That the occasional and cautious use of laxatives, not purgatives, should not be lost sight of. They are called for, for instance, when astringents, having acted well, are followed by an after-exacerbation—a result possibly ascribable to an astringent effect on the bowel in excess of the good effects on the mucous membrane and its secretions which are then pent up. The mildest and best in my experience is a small dose of castor oil guarded with opium or hyoscyamus, care being taken that its action be checked after at least the second free evacuation. 2. That in applying blisters it is often a useful plan to apply one along the ascending or descending colon, and when it is about to heal, a second along the other. 3. That in North China I found that in diarrhoea and chronic dysentery, oatmeal porridge was a substitute for bread often better than the original, and fancy, therefore, that it might sometimes usefully supply the place of the unleavened camp-cooked “dumps” of South Africa.

Goldhawk-road, Shepherd's Bush.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

TWO CASES OF SPINAL PARALYSIS—RECOVERY.

(Under the care of Dr. PAVY.)

Case 1.—George J. T., aged thirty-five, a painter's labourer, was admitted on March 26, 1879. His father and mother were alive, and there was no family history of phthisis, gout, rheumatism, or other hereditary disease. Patient had scarlatina fifteen years ago, and from that time until four years since had had perfect health. Four years ago he was in St. Thomas's Hospital for four months with secondary syphilis. Two years ago he was in St. George's for two weeks with a mild attack of rheumatism, chiefly affecting the lower extremities. For the last four years patient had been in the habit of drinking about three pints of beer a day; before that time he drank spirits freely.

On admission the patient stated that he had lately been much exposed to cold and wet, and about three weeks before he had experienced a tingling sensation in the shoulders, and a feeling of heaviness about the arms. About the same time a similar pain appeared in the calves of both legs, and shortly afterwards in the feet. These symptoms gradually got worse, and he had been under medical treatment since. When examined (March 26), patient is a tall, well-formed man; his expression is somewhat apathetic, and he seems drowsy. The skin is warm and moist; there is no jaundice or anasarca. The tongue is red and glazed; there is no blue line on the gums. The voice is somewhat husky, but the respiratory and circulatory systems seem fairly healthy. Patient has no difficulty in micturition, but on February 25 there was incontinence of urine, and there has been slight dribbling pretty constantly since that date. The urine is highly phosphatic, specific gravity 1016, free from albumen. The mental faculties are good; sight and hearing natural.

He can move his hands and arms slowly, and when movement takes place a tingling sensation is felt along the arms. The grasp is feeble; the right hand is somewhat stronger than the left, but both hands are pale and the circulation there is inactive. When the arms are pinched patient has a slight sensation of pain; the sensibility of the parts gets duller up to the shoulders, and about them it is almost lost. There is very feeble voluntary movement in both knees, and he cannot abduct his legs. Below the knees sensibility is very slight; it is feebler about the knees, and for about two inches above the left patella it is entirely lost; on both sides it is better in the thighs. There is no reflex action on irritating these parts. The temperature in the axilla is 97.7° F. The bowels are constipated; the appetite is bad.

March 30.—Patient is taking liquor hydrarg. perchlor., a drachm three times a day, and has had senna draught for the bowels. He states that he feels better in himself since he has been in the hospital, and the incontinence of urine has been less troublesome. Tested with the constant electric current it has been found that the deltoid and pectoralis muscles of the left side show perceptible contractions with fifteen cells, the same muscles on the right side contracting similarly with twenty-five cells; the biceps and triceps of the left side contract with twenty and fifteen cells respectively; the same muscles on the right side contract with ten cells; and the flexors and extensors of both forearms respond alike to twenty cells. The muscles of the lower limbs respond about equally to moderate currents, and sensibility to electricity appears about equal on both sides.

April 1.—Patient can perceive the difference between heat and cold, but in the upper extremity he takes about a second to appreciate the sensation of cold; that of heat is appreciated at once. In the lower extremity he cannot appreciate the sensation of cold at all, and he takes three or four seconds to appreciate heat applied to the sole of the left foot.

5th.—Patient says that for the last few days his hands seem to have been getting more numb. He complains of feeling very weak, but sleeps better at night.

10th.—He feels drowsy, but does not sleep much in the night. The numbness in the hands is troublesome. He is still unable to move, and his grasp becomes weaker. He is much troubled with constipation. His temperature, hitherto normal, is to-day 101° Fahr.; pulse 100.

12th.—There is tenderness on pressure about the mid-dorsal region, and great pain extending down the spine when he is raised a little in bed. For the last few days there has been progressive feebleness in both hands, and tenderness on the dorsal surfaces of the arms. The temperature on the 10th rose to 103°; to-day it is 100°, pulse 106. After an enema yesterday the bowels were opened. On microscopic examination of the urine, crystals of the triple phosphate and of urate of soda were found.

15th.—Patient is very drowsy and feeble. The grasp of the hands is weak, and they are almost devoid of sensibility; but this is rather better on the chest and about the arms. The respiratory movements remain normal. The legs are quite motionless. Temperature 98.5°; pulse 126. A water-bed has been in use since the 12th inst.; and a lotion of tannic acid and spirit is being used for the back, where there is some tenderness.

21st.—Patient looks better, and can be moved now in bed without so much pain in his back. His grasp is getting stronger. He is very restless, and constantly wants to have his position changed. Temperature normal; pulse 84.

25th.—There is now good tactile sensibility in the soles of both feet; but there is no reflex action. The left hand is stronger than the right, but the grasping power has not increased. He complains of slight pain at the back of the head, and about the nape of the neck when the head is bent forwards.

28th.—He can just move both knees, and feels better, but is still very weak. Until the last three days the incontinence of urine had persisted, and it appeared again last night, but this morning he has control over his bladder.

May 1.—On April 29 patient could flex his legs, and now he can raise himself up in bed without pain in his back. He can move his knees more freely; the urine is passed normally, but contains a large amount of phosphates. The bowels remain very constipated.

5th.—There are faint signs of reflex action when the feet are irritated, and patient is much better in his general

becoming law, the original proposal having been to invest the General Medical Council with much greater power than it actually received. At present it had little actual control over the educative and licensing bodies except by means of *recommendations*, whereas it was originally intended to have power to define conditions of qualification, and to compel the combination of the licensing corporations. The Medical Council had reported in 1870 that the inequality of the various licences was a pressing evil, and strongly advocated the adoption of a conjoint examination scheme for the corporations, the universities being left quite free and independent, as was proposed at an early stage of the present Medical Act Amendment Bill. Lord Ripon's Bill of 1870, which embodied the recommendations of the Medical Council, was wrecked mainly by the agitation of the British Medical Association for the direct representation of the profession in the Medical Council.

In regard to the present proposal for a conjoint scheme for each of the three divisions of the kingdom, Mr. Simon was himself strongly in favour of it. He thought that the objection made to the conjoint scheme, that it would tend to lower examination standards to the minimum level, was met by the consideration that such licensing bodies as the universities could still claim from candidates for the higher degrees any measure of proficiency that seemed desirable, and that there would always be a desire among the abler candidates to obtain these higher degrees. He did not advise the appointment of a single examination board for all the three divisions of the kingdom together, because he could not see how it could work satisfactorily. He was in favour of one conjoint board for each division of the kingdom, with sufficient central controlling authority over the three to ensure uniformity in their standard of examination.

In regard to the proposal for direct representation of the profession in the General Medical Council, he was entirely opposed to it, and he pointed out repeatedly that the British Medical Association had hindered useful medical legislation by the action it had taken regarding this matter. He thought such a system of nomination would be likely to send to the Council men of an order decidedly inferior intellectually to the past and present members of that body, and that a Council so constituted would also be likely to spend much time uselessly over matters which did not properly belong to it. He admitted that it was possible that much of the discontent regarding representation arose from the fact that many of the members of the Council were elected by close or limited electoral bodies within the corporations or universities. He was also willing to concede that the representatives of corporations were less likely, as such, to be willing instruments in measures of reform touching the peculiar interests of the corporations than men elected from the outside; but he pointed out that the corporations are at present invested with legal power to be examining bodies, and under the proposed conjoint scheme these bodies would no longer compete but co-operate; and the Council as at present constituted had more than once passed its vote in favour of this co-operation. He would not say the Council could not be amended in its constitution, but he thought the broad principle according to which the Council contained members representative of the various bodies previously recognised by the State as its agents for medical examinations was an intelligible and correct one. There might be improvements, however, in the curtailment of that principle, but he thought nothing but harm could result from a system of direct representation. A reduction of the number of members of the Council would probably facilitate business, and such a reduction might be possible by linking bodies together for representation.

Mr. Simon also affirmed that the British Medical Associa-

tion had entirely misstated or exaggerated facts in declaring that the Council had been rather afraid than otherwise of being invested with greater power than it possessed at present over the licensing bodies. The Council were at one with Lord Ripon in 1870 in the proposals which he made towards this end. In the discussions which arose then, it was perceived that it would be practically advantageous to leave matters of detail to each of the three proposed local boards; but there was no desire on the part of the Council to shirk the responsibility of taking measures to insure the similarity of the examination rules throughout the kingdom. As already remarked, Mr. Simon not only gave a direct negative to the statement of the British Medical Association, that the preponderance of university and corporation members in the Council had retarded the adoption of compulsory uniformity of examination, but he threw the chief onus of the non-adoption of the scheme on the Association itself through its obstruction of medical legislation since 1870.

Mr. Simon was also examined on a few topics of less general import, such as the condition of the "lost medical school," the character of the M.D. Durham and of the licence of the Faculty of Physicians and Surgeons of Glasgow, and certain alleged irregularities regarding the preliminary examinations and period of study in certain Irish schools. He admitted that it was a defect in the examinations of the English College of Surgeons, that the candidates were not tested as to their knowledge of midwifery.

Towards the conclusion of his evidence Mr. Simon, in answer to Dr. Lyon Playfair, said he should not apportion the members of the Medical Council among the three divisions of the kingdom in proportion to the number of persons licensed in each division. Neither did he think that any medical school was entitled to be represented at all merely because it was a teaching institution. He also made the extraordinary statement that the present standard of examination for the degree of Bachelor of Medicine at the University of Edinburgh is not higher than would be required by the Conjoint Board for Scotland. We wonder whether it is hoped that the standard of the other two conjoint boards will be pitched equally high, and how in that case the public will be supplied with medical practitioners at all after a generation has elapsed from the inauguration of such a state of matters.

Dr. Quain, the witness who followed Mr. Simon, gave his evidence with the readiness and precision to be expected in one who has devoted much time and business capacity to the work of the Medical Council. He has also rendered special services as Chancellor of the Council's Exchequer, and as Chairman and Secretary of the Pharmacopœia Committee. We have left ourselves space to notice in this column only the more important points in his evidence.

Dr. Quain was satisfied the present Medical Council had done the duties assigned to it in a very satisfactory manner. He mentioned that since its institution it had received something like £140,000, a legal recognition of their qualifications being the return which medical practitioners had received for their registration-fees. Dr. Quain was convinced that the present constitution of the Council was as nearly perfect as it could be made if the duties of the Council were to continue exactly what they had been. And if any changes were made in this respect it would be quite time to consider whether any changes in its constitution were necessary after its new work had been clearly defined.

He was utterly opposed to the proposal for direct representation of the profession on the Council. Such a system would periodically cause most unpleasant contentions and jealousies, without effecting any good at all. In fact, he thought that with such a system the best men would not come forward as candidates.

He was decidedly in favour of the proposal for a conjoint board in each division of the kingdom, and he also thought there was no danger of the levelling down of the higher examinations to the minimum standard. He thought, in regard to the universities, that they should themselves conduct the first two examinations of candidates for their degrees, the final examination being passed before the Conjoint Board.

AMERICAN HARVEIAN ADDRESSES.

THE recurrence of the Harveyian Oration at the Royal College of Physicians gives an opportunity of apologising for, and endeavouring, however briefly and tardily, to supply an omission of which we have been guilty. Last year, when we in England were commemorating the tercentenary of Harvey, our brethren on the other side of the Atlantic joined in the rivalry to utter his praise and magnify his fame. Two of these American Harveyian orations were sent to us, but we have never till now succeeded in making space for any notice of them. (a) They are both highly eloquent addresses, showing a loving study and a full and warm appreciation of Harvey's discoveries and writings, and jealousy for his fame as one of the glories of the English race. Each writer describes Harvey's life, and speaks of his environment,—of the circumstances of his life, and of the great men among whom he lived and moved. This portion of Dr. Da Costa's address is particularly good; his account of Harvey's early life, and rise to fame and eminence, being very interesting, and very full, though remarkably well condensed; and it is worthy of note here that in speaking of the many years that Harvey took to elaborate and perfect his great discovery, before he published it to the world, Dr. Da Costa observes—"In our day such procedure would not be possible. He could not have perfected his investigations first. Interviewers and reporters would have dogged his steps, and made him say things of the truth of which he was only half convinced, and which he would have liked to work out fully before giving to the world as his convictions. Yes, we live in an age of great activity, and the green fruit must go to the market with the ripe." Both Dr. Da Costa and Dr. Forbes acknowledge the work done by Servetus, Realdus Columbus, Cæsalpinus, and others, in paving the way for Harvey, and give them due credit for their discoveries; but both insist that to Harvey alone belongs the glory of having discovered, demonstrated, and proved for ever the circulation of the blood; that, as Dr. Da Costa says, "No man before Harvey knew that there was but one kind of blood, which is kept in continual motion. No man had discovered that a drop of blood starting from the left side of the heart will return to it, having made the circuit with amazing rapidity." Dr. Da Costa also speaks, as Dr. Wilks did in his Oration, of Harvey's anticipation of the Baconian method of inquiry. Harvey helped to free us from the trammels of authority and tradition, he says, "and in the method which he employed in his search into nature he has left that of which the impress is seen in the best physiological and clinical work of our time. He made a discovery, chiefly by the inductive process, before Bacon wrote about it, and in our profession at least the mind of investigators has been more moulded by him than by anything Bacon suggested."

The most remarkable thing about Dr. Forbes' learned address is that he is more jealous for Harvey than we in England are.

(a) "Harvey, and the Transit of the Blood from the Arteries to the Veins 'per Porositates': an Address delivered before the College of Physicians of Philadelphia, on the Tercentenary Anniversary of Harvey's Birth—April, 1878." By W. S. Forbes, M.D., Senior Surgeon to the Episcopal Hospital, Philadelphia.

"Harvey and his Discovery." By J. M. Da Costa, M.D., Professor of the Practice of Medicine at the Jefferson Medical College, Philadelphia. J. B. Lippincott and Co., Philadelphia. 1879.

He insists that Harvey discovered "the exact channels" by which the blood passes from the arteries into the veins; and he reproaches us for denying or doubting this. He quotes from Willis's life of Harvey, and from other English authorities, sentences showing that we do not believe, or at least are not sure, that he knew of the existence of the vessels we call the "capillaries"; and he notes that Huxley stated, in a lecture delivered at the Royal Institution in January, 1878, "One thing Harvey could not do, because the instruments of the time would not enable him to do it. He never gave the exact channels by which the blood passes into the veins." Now, says Dr. Forbes, Harvey's treatise was published in 1628; but the compound microscope was invented by Hans Zansz about the year 1590; and one of his microscopes was in the year 1617 in the possession of Alkmaar, who then resided in London as Mathematician to King James. May not Harvey have known of it? But if he did not, it does not require a compound microscope to see the capillaries. "A common double convex spectacle-glass, magnifying only three and a half diameters, gives a clear view of these vessels." Harvey was in the habit of using a double convex lens; and he saw and described the "punctum saliens" of the egg with what he calls "perspicilli." Is it not a fair inference that he could with the means at his command have seen the capillaries? We venture to think that the fact that he never says he saw them is a quite sufficient answer. But Dr. Forbes founds his assertion, that Harvey knew of the existence of vessels between the arteries and the veins, chiefly on what, according to him, is the true meaning of the word *porositates*. He says, "in using the word *porositates*, which he does whenever he speaks of the passage of the blood from the arteries to the veins," and especially in the fourteenth chapter of his work, *De Motu Cordis*, etc., and in his second letter to Riolanus, "in both of which places Harvey sums up his views on the circulation, and traces the blood through the arteries into the *porositates*, and through the *porositates* into the veins, and through the veins into the heart, Harvey more clearly expresses the true idea of the transit of the blood from the arteries to the veins than is now conveyed by the expression 'capillary system of vessels.' The word 'capillary' relates only to the hair-like appearance of the vessels, while *porositates* translated into plain English would be "ferries," and relates to an *exact function*, namely, that of passing the blood in *one direction only*,—that is, from the arteries to the veins. Now, these 'ferries' (the ferry vessels, the ferry system of vessels), under the designation of *porositates*, Harvey points out and dwells upon." We cannot give Dr. Forbes's argument at length. It must suffice to state that he says the *porositates* has a Greek root: the root is *πόρος*, the verb is *περάω*, to pass through, to traverse; the noun means a *ferry*, a passage; the ancient writers never use it, so far as he knows, as expressing or comprehending any idea of return; he quotes instances of this from Æschylus and Pindar, and observes, "These old writers use the word *πόρος* with perspicuity as describing the continuous current of the classic rivers of antiquity: so, too, Harvey, with great taste and meaning, used it as pointing out the ever onward flow of the tide he wished to demonstrate." It follows that the English word "pores" very incorrectly gives the meaning of Harvey's *porositates*, and that "it is a grave error to attribute to the word *porositates* a loose and secondary sense, such as belongs to the English word "porosity." Dr. Forbes sums up thus: "We are forced to the belief that Harvey did have the means of seeing, and that he did know, and was the first to point out, that 'order of sanguiferous vessels ending by uninterrupted continuity' in the arteries at one extremity, and in the veins at the other

extremity; and that under the title of *porositates* he gave 'the exact channels,' *the ferry system of vessels* by which the blood passes from the arteries into the veins. This belongs to Harvey, and to Harvey alone."

Dr. Forbes' plea is learned and ingenious. But we must reply, first, as we have already remarked, Harvey does not anywhere claim to have seen these distinct, walled vessels. And he surely would not have omitted any observation that could have added strength and clearness to any link in the chain of his demonstration and proof of the circulation. Secondly, as to the hybrid word *porositates*, we answer, with Professor Da Costa, who has examined this question very carefully, that some of the best scholars, as Bussemaker and Daremberg, and Cousin, have translated the Greek word as pore, or porosity, in the modern sense; that Harvey, his contemporaries, and his immediate predecessors, used the word *porositas*, as it was current in the English, French, and Italian languages, and in those languages it was then employed in precisely the same sense as it is now employed; that Harvey's contemporaries did not understand him to mean anything more by the word than we do; and that we learn from Harvey himself what significance to attach to his words, for he writes, in his letter to Slegel, "Our business is not so much to inquire what a word properly signifies, as how it is commonly understood." We must still believe that Harvey never saw, and did not know of, the exact channels constituting what we call the capillary system. It was left for Malpighi to first see the circulation of the blood; and to demonstrate the capillaries.

THE WEEK.

TOPICS OF THE DAY.

FROM the lips of no smaller a personage than the Chairman of the Finance Committee of the Metropolitan Board of Works has at length come the real explanation of the delay in carrying out the Artisans' and Labourers' Dwellings Act in a complete and satisfactory manner in the metropolis. The six sites, viz., the Bedfordbury, Great Wild-street, Peartree-court, Whitecross-street, Old Pye-street, and Whitechapel and Limehouse, have been acquired at a cost of £734,766, and put up to auction without eliciting a single bid. It is true the trustees of the Peabody Donation Fund have made a proposal to purchase the sites, but the acceptance of their offer would result in a loss to the Metropolitan Board of about £643,461, the only set-off to which would be about £81,400, the value of the recoupment area not compulsorily set apart for artisans' dwellings, which the Board would retain. The fact that the land must be used for the specific purpose of erecting workmen's dwellings operates to immensely decrease its value in the open market. The commercial value of the recoupment area of the various sites, if utilised for general purposes, was estimated by the Board's superintending architect at £496,694, leaving a difference of £238,072 on the total cost of acquisition. The same officer advised the Metropolitan Board that, in his opinion, the only alternative course to adopt, calculated to relieve the Board from difficulty and to place them in the best commercial position, would be for them to obtain an Act to enable them to erect the buildings themselves. Valuable ground-rents could thus be created, or leases at moderate rentals could be granted, and the whole property would thus become marketable. The foregoing statement was recently made by Major Munro, representative of the Whitechapel district at the Metropolitan Board of Works, at a local meeting, as he stated that the occasion for further privacy had passed away, and the facts involved were of the gravest moment to the ratepayers, were a subject for considerable anxiety to the Metropolitan Board,

and were suggestive of the tremendous financial difficulties which were the necessary result of carrying into effect the Acts of 1875, which must prove a grievous burden to the ratepayers of London, and could never have been contemplated by the Legislature. So, like Robinson Crusoe, the Metropolitan Board have built their boat, and now find they can't get it down to the sea. What is to be the result?

The Registrar-General reports that during the week ended 21st ult. scarlet fever showed the largest proportional fatality in Salford, Bradford, Hull, and Sunderland. All the five fatal cases in Hull occurred in one house, and were of children aged between six months and seven years. Measles caused 104 deaths in London, and only twenty-five in the nineteen large provincial towns. Three deaths were referred to diphtheria in Manchester, and three to enteric fever in Hull. Small-pox caused twelve deaths in London, but not one in any of the nineteen large provincial towns.

At the meeting of the City Commissioners of Sewers, held last week, Dr. Sedgwick Saunders, the Medical Officer of Health, reported under the provisions of the Artisans' and Labourers' Dwellings Act, 1875, the bad state of a district in the City which for many years past has been notorious for its unhealthiness, and recommended the promotion of a scheme for its improvement. The houses affected are situated in certain courts and alleys abutting on Shoe-lane, Fleet-street—in all thirty houses, inhabited by 284 persons. The houses are, with one or two exceptions, unfit for human habitation, and the ailments of the inhabitants indicate a low condition of health, attributable to the closeness, narrowness, and bad arrangements and ventilation of the places, and the dilapidated construction and drainage of the houses. An improvement in the neighbourhood was necessary, looking to the large number of printers and compositors whose business required them to live in the neighbourhood. The suggestions of Dr. Saunders were referred to a committee.

At a meeting of the Exeter Town Council, held last week, a letter was read from the Corporation of the Poor, in which they pointed out that a late revolting case of child-murder had again drawn their attention to the subject of protection to infant life, and they enclosed the following copy of a resolution passed at the last meeting, viz.:—"That this Corporation do again request the members for the city to impress upon the Secretary of State for the Home Department the urgent desirability of bringing all foster-parents, though receiving only one child at nurse, under the provisions of the Infant Life Protection Act, 1872; and that the Corporation of the Town Council, in any way they may think most effective, be at once invited to act." The Town Council agreed with the views expressed by the Corporation of the Poor, and resolved to memorialise the Home Secretary on the subject. At the same meeting a plan for one general and public slaughterhouse was adopted; and a new scheme for the sewerage of the city was also presented, and ordered to be printed.

Certainly not before it was wanted, the sanitary authorities of Liverpool have begun to take legal steps for reducing the overcrowding that has become notorious in the lower districts of the town. Last week their officer applied to the stipendiary magistrate for an order to compel the reduction of the number of occupants in a house situate in a court off Clement-street, Vauxhall-road. Evidence was adduced to show that an inspector had visited the premises in question where he found a sleeping-room tenanted by three men two women, and six children. The room contained only 840 feet of space, while the law requires 700 feet of space for every two people. The magistrate granted an order for the reduction of the inmates to two adults and two children.

It is stated that the action of the sanitary authorities in this direction has caused much excitement in the poorer districts at the north end of the town, where there is a considerable amount of overcrowding.

The annual meeting of the Coffee Public-house Association was held on Saturday last at Grosvenor House, the Duke of Westminster presiding. The report, moved by Mr. Cowper-Temple, showed that the progress of the movement had been most satisfactory. They had, however, only about £80 in hand, while the expenditure to be met was estimated at £800. Mr. Arthur Mills, M.P., Mr. Samuel Morley, M.P., and others, addressed the meeting, and it was resolved to summon a conference of the various societies engaged in the movement.

On Monday last the forty-fifth anniversary meeting of the Statistical Society was held at Somerset House, Mr. Shaw-Lefevre, the retiring President, in the chair. The report presented showed that the Society continued to maintain the position it had attained; and the Chairman, in moving the adoption of the report, congratulated the meeting on the satisfactory progress made by the Society in every way during the past year. He expressed an opinion that their library was not what it might be, and stated his belief that if they possessed a better one the Society would prosper even more than it had done. During the next session he thought it was probable that the subject of accommodation would have to be considered, great inconvenience having been felt from want of room at meetings for readings and discussions. No doubt the scheme mooted ten years ago, of eight or ten kindred societies uniting and raising a commodious edifice for the transaction of their respective duties, would receive attention. The election of the Council and officers for the forthcoming year then took place, Mr. Thomas Brassey, M.P., being appointed President, with a council of thirty members.

At the commencement of the present week the amount received on account of the Hospital Sunday Fund collection was stated to have reached a total of £21,500. Over £20 was found to have been deposited by passers-by in the box placed for the purpose outside the Mansion House during the past week. Several sums are reported as not yet paid in, but it is doubtful whether the amount now announced will be materially increased.

ROYAL COLLEGE OF SURGEONS.

THE annual meeting for the election of Fellows into the Council of the College took place on the 3rd inst., and, as usual, excited considerable interest amongst the provincial as well as the metropolitan Fellows. At the usual hour, two o'clock, the President, Mr. John Simon, C.B., F.R.S., the Vice-Presidents, Messrs. Luther Holden and John E. Erichsen, F.R.S., and several of the Council, entered the library of the College, and the President stated that there were four vacancies, occasioned by the retirement in the prescribed order of Messrs. F. Le Gros Clark, T. Spencer Wells, George Critchett, and the death of Mr. John Hilton. Messrs. Clark and Critchett declined being nominated for re-election. To fill these vacancies the following gentlemen were brought forward, viz.:—Mr. T. Spencer Wells, Surgeon to her Majesty's Household, for re-election; Mr. Richard Barwell, Surgeon to the Charing-cross Hospital; Mr. Thomas Bryant, Surgeon to Guy's Hospital; Professor John Wood, F.R.S., Surgeon to King's College Hospital; Mr. Henry Power, of St. Bartholomew's Hospital; and Professor Jonathan Hutchinson, Surgeon to the London Hospital. The President then explained the mode of voting, namely, by ballot; the by-laws of the College relating to these elections were read, and the Fellows proceeded to record their votes. At the close of the ballot the scrutiny commenced,

and this over, the President declared that the choice of the Fellows had fallen on Messrs. Wells, Wood, Hutchinson, and Power. The numbers polled by each candidate were as follows, viz., for Mr. Thomas Spencer Wells, 139, including 2 plumpers; Mr. John Wood, 129, including 11 plumpers; Mr. Jonathan Hutchinson, 129, including 15 plumpers; Mr. Henry Power, 126, including 19 plumpers; Mr. Thomas Bryant, 97, including 9 plumpers; Mr. Richard Barwell, 22, including 3 plumpers. As showing the great interest taken in the election by provincial Fellows, it may be mentioned that many attended from considerable distances, as Messrs. Morris, Hereford; Wiseman, Wakefield; Lang, Exeter; Bell and Hutchins, Rochester; Owen, Symonds, and Ower, Oxford; Thomas, Archer, West, Barker, and Baker, Birmingham; Cadge and Crosse, Norwich; Nankivell; Balding, Royston, Herts; Bowen, Birkenhead; Boulter and Lowther, Hull; Ceeley, Aylesbury; Bartrum, Bath; Cantlie, Duffin, Banff; Brookhouse, Nottingham; Jackson, Plymouth; Steele, Clifton, Bristol; Faircloth, Newmarket; Ryott, Newbury; Manders, Marlborough; Sander, South Molton; Manley, Wolverhampton; Sympton, Lincoln; Allen, Grantham; Benfield, Hames, and Franklin, Leicester; Savage and Clarke, Tunbridge Wells; Colgate, Eastbourne; Cornwall, Fairford, Gloucester; Harris, Wotton-under-Edge; Lund, Manchester; Barrow, Ryde. In the evening the Fellows dined together at the Albion Tavern, when Mr. John Gay, a member of the Council of the College, presided. Several visitors were present.

ROYAL COLLEGE OF PHYSICIANS.

THE annual, as it may fairly be called, *conversazione* given by the President and Fellows of the Royal College of Physicians was held on Wednesday evening last, and was, as is usual, very agreeable and successful. Many scientific instruments, some rather fearfully named, were shown. Among others, Dr. Richardson's sphygmophone; and audiometers, sphygmoscopes, sphygmographs, hæmaglobinometers, and hæmacyrtometers, exhibited by Hawksley and other instrument makers, attracted considerable attention. But most curiosity and interest were excited by a series of transparent micro-photographs exhibited by Dr. Norris to demonstrate the existence of a third corpuscular element in the blood, which, he says, has hitherto escaped recognition, owing to the fact that it possesses the same colour and refractive index as the *liquor sanguinis*, and is, therefore, invisible while submerged in that liquid. Dr. Norris's facts are disputed, but his ingenuity and industry are indisputable. The library was enriched for the time by many valuable works of art, lent by Messrs. W. G. Herbert, A. B. Joy, Marcus B. Huish, S. Cartwright, J. L. Probert, and P. L. Selater; Drs. Acland, Russell Reynolds, and Beale; and other Fellows and friends and exhibitors.

UNIVERSITY OF DUBLIN.

THE annual meeting of the Senate of the University of Dublin was held on Saturday afternoon (June 21) in the Examination Hall of Trinity College, under the presidency of the University Caput—Dr. A. S. Hart, V.P. (pro-Vice-Chancellor); Rev. Dr. Lloyd (Provost), and the Rev. Joseph Barlow (Senior Master, non-regent). The Rev. J. A. Galbraith, M.A., proposed that the degree (*honoris causâ*) of "Doctor in utroque jure" (LL.D.) be conferred on James Henry Reynolds, V.C., Surgeon-Major A.M.D. In seconding the "grade," as such a motion is termed in university language, the Rev. Dr. Haughton said that his position in the Medical School of Trinity College enabled him to say that James Henry Reynolds was a well-known student of their medical school; that not content with its degree he also took out the licence of the College of Surgeons and the

licence of the College of Physicians; and when he performed those gallant actions at Rorke's Drift his name was sent home by the military authorities with the recommendation that he should receive the Victoria Cross. There had been a long delay in carrying out this recommendation, and the delay was due to the narrow red-tapeism and cliqueism of the Army Medical Department. It occurred to the College of Physicians and to Trinity College at the same time that they might take steps to honour this gallant man themselves, and so to lead the authorities to reconsider the course they had adopted. The College of Physicians resolved to confer on him an honorary fellowship, and sent a notification of the fact to the Duke of Cambridge, from whose private secretary they had since received a letter of thanks. The University, moving more slowly than the College of Physicians, as became a larger body, now similarly conferred on Dr. Reynolds the highest honour it could confer. And now the public know that Surgeon-Major Reynolds will receive the Victoria Cross. There were now lying in the army hospital at Netley a number of soldiers who were in that hospital at Rorke's Drift, and he would quote from a report respecting these, which said—"Among the invalids from Natal are, as is known, men wounded in the defence of Rorke's Drift, or who were patients in the hospital at the time of the attack by the Zulus. They are now at Netley, and all speak very loudly in praise of the gallantry and devotion of Dr. Reynolds of the Army Medical Department. According to their report, Dr. Reynolds took active measures for the defence of the hospital as soon as it was known the Zulus were about to attack the place, and never ceased to exert himself in helping to ward off the enemy, and in caring for the wounded, during the whole time the fighting lasted." The grace was passed unanimously. We may observe here that the "red-tapeism and cliqueism" of which Dr. Haughton complained is not to be laid at the door of the Army Medical Department. The fact is that, the surgeon being a "non-combatant," he could not be recommended directly by Lord Chelmsford for the cross. The recommendation had to be made by the Chief Medical Officer to the Officer Commanding in Chief, and sent home through him; hence, probably, the delay. The Rev. J. A. Galbraith said the next duty the Senate had to perform was an equally pleasing one—namely, to confer the degree of Doctor in Medicine (*honoris causâ*) on Joseph Lister, F.R.S., Professor of Surgery in King's College, London. The name of Mr. Lister was known all through Europe, in consequence of the distinguished services he had rendered to surgical science. Dr. Bennett, in seconding the motion, expressed his most entire confidence in the correctness of the views of Mr. Lister, after full experience of the success of his practice. Throughout Europe, and, in fact, over the whole world, surgery had recognised that his system was correct; that it was capable of being worked, and that it had saved, and was still capable of saving, an enormous number of lives which would be lost under the old system. These were sufficient reasons for the conferring of this honour. The grace was adopted unanimously. At the Summer Commencement, on June 25, the honorary degrees thus agreed to were publicly conferred—on Mr. Lister in person, and on Surgeon-Major Reynolds *in absentia*. Mr. Lister was presented to the pro-Vice-Chancellor by Dr. Webb, the Public Orator, who spoke in terms of high praise of Mr. Lister's eminence as a scientific surgeon; and who also delivered an eloquent little Latin oration on Surgeon-Major Reynolds' services, and on some of the unhappy incidents of the Zulu war.

EDINBURGH ROYAL INFIRMARY.

A MOVEMENT has been set on foot by a number of medical gentlemen in Edinburgh to furnish one of the wards of the

New Infirmary on their own account, to be called the "Practitioners' Ward." At first it was intended to confine the subscriptions to Edinburgh and the neighbourhood, but it has been suggested that there are many medical men, now resident in different parts of the United Kingdom, who, having studied in Edinburgh, would be happy to promote the future success of the Royal Infirmary, with which, doubtless, in the past they have had many interesting and pleasing associations. The proposal is backed by the following gentlemen:—A. Peddie, P.R.C.P.; P. Watson, P.R.C.S.; R. Christison, Bart., M.D.; T. G. Stewart, M.D.; A. R. Simpson, M.D.; W. Sanders, M.D.; Thomas Fraser, M.D.; Joseph Bell, M.D.; R. Peel Ritchie, M.D.; A. Smart, M.D.; D. A. Robertson, M.D.; W. Menzies, M.D.; James Young, M.D.; John Playfair, M.D.; Benjamin Bell, F.R.C.S.; Thomas Annandale, F.R.C.S.; W. T. Gairdner, M.D.; Angus McDonald, M.D.; James Spence, F.R.C.S.; J. Brackenridge, M.D.; James Carmichael, M.D.; John Moir, M.D.; J. D. Watt, M.D.; J. A. Sidey, M.D.; Alexander Keiller, M.D.; D. Christison, M.D.; Thomas Keith, M.D.; J. Duncan, M.D.; D. Hart, M.D.; T. G. Weir, M.D.; T. H. Pattison, M.D.; W. Cumming, M.D.; J. H. Croom, M.D.; P. D. Handyside, M.D. Dr. James Young, 14, Ainslie-place, and Dr. R. Peel Ritchie, 1, Melville-crescent, are the treasurers. The subscription is fixed at £2 2s., and should be sent to the treasurers as soon as possible.

MEDICAL DEFENCE ASSOCIATION.

THE annual general meeting of the members of the Medical Defence Association was held at the rooms of the Medical Society of London, on Monday last, Dr. Benjamin W. Richardson, F.R.S., President of the Association, in the chair. The report of the Council was read by the Hon. Secretary, Mr. George Brown, and was ordered to be printed for circulation among the members. The Treasurer's report showed a small balance against the Association. The following officers were elected for the ensuing twelve months, viz.:—*President*: Benjamin W. Richardson, M.D., F.R.S. *Hon. Treasurer*: W. Spencer Watson, F.R.C.S. *Hon. Secretary*: George Brown, M.R.C.S. *Solicitors*: Messrs. Green and Pridham. *Members of Council*: H. Adcock, L.R.C.P.; F. Alderson, M.R.C.S.; John Borland, M.B.; H. Cuolahan, M.D.; Thomas Cooke, F.R.C.S.; D. H. Dyte, L.R.C.P.; J. Dixon, M.D.; R. T. Daniell, M.B.; W. B. Hemming, M.R.C.S.; Douglas Hemming, M.R.C.S.; B. Kelly, M.D.; W. Beech Johnston, M.D.; C. P. Langford, M.R.C.S.; T. Wood Hill, M.R.C.S.; J. Wallis Mason, M.R.C.S.; Charles Royston, M.D.; Walter Smith, L.R.C.P.; James Stevenson, M.D.; G. Danford Thomas, M.D.; and H. W. Williams, M.D. Votes of thanks having been awarded to the President and other officers for their past services, the meeting terminated.

OPPOSITION TO THE ARTISANS' DWELLINGS ACT.

MR. SCLATER-BOOTH a fortnight ago received, at the office of the Local Government Board, a deputation from the Town Council of Derby, who asked that they might be permitted to defer putting the Artisans' Dwellings Act into operation in their town, upon the ground that it would entail great expense upon the ratepayers, which they were not in a position at present to pay. They stated that one of the sites which the medical officer had reported against had on it healthy and good houses which the Town Council could not be prevailed on to have pulled down. Mr. Sclater-Booth reminded them that the death-rate of Derby, at the place pointed out as unhealthy, was 29 per 1000 of the people. The medical officer had condemned the site from a moral, social, and sanitary point of view. This was the first application of the kind made since the Act came into operation and he could not accede to their request.

MEDICAL OFFICERS OF HEALTH.

WE regret to hear that the combination of the sanitary districts of Chelmsford, Maldon, and Billericay, Essex, has been broken up by the withdrawal of the Billericay Sanitary Authority, on the ground, it is said, of economy. As this withdrawal will reduce the salary (£800 a year) of the Medical Officer of Health for the Combined Districts by one-fourth, Dr. Cornelius Fox will decline, we understand, to act for the Chelmsford and Maldon Sanitary Authorities, and will very probably retire from his present position. It is said also that the North Devon combination is threatened with disruption; and this may lead to the retirement of the health officer of those combined districts also. In the interests of the public health, the breaking-up of any of these large combinations, which can offer salaries large enough to attract able and highly educated medical officers of health, is greatly to be deplored, especially when it leads to the loss of the services of men of large experience as well as of ability. And when such events occur, one is tempted to blame the Local Government Board for not exerting the power it possesses to forbid disruption or the discharge of a competent servant without due cause. But there are always two sides to a dispute, and we venture to suggest that a medical officer of health may at times be tempted to magnify his office overmuch, or indiscreetly. The people are yet very far from being educated up to recognising fully the value of sanitary reform. A denunciation, as intolerably unhealthy and bad, of a state of surroundings that perfectly satisfied their forefathers, is often to them a hard saying. Sanitary reforms, moreover, are often costly, the benefits of them slow to be made clearly appreciable; and those who have to pay for them are not quick even at seeing how much an improved condition of the general health and an absence or lessening of epidemic disease must, in the end, save their pockets. They require to be *led*, with much patience, consideration, and forbearance, so that they may understand these things; and the process is undoubtedly often very trying to the scientific officer of health. We fully admit that the Local Government Board is, not seldom, weak-kneed and vacillating, and fails to support the medical officers of health even when these feel that their recommendations and representations are indisputably necessary and urgent. But is it not possible that sometimes,—we do not allude to any particular instance,—that now and then disagreements and disruptions might be avoided by a little more patience and tenderness of handling, and a little less of scientific zeal on the part of the officers of health?

MURCHISON MEMORIAL.

A GENERAL meeting of subscribers to the above was held at 11, Grafton-street, Piccadilly, on the 30th ult., when Dr. Risdon Bennett, F.R.S., President of the Royal College of Physicians, occupied the chair. On the motion of Dr. Burney Yeo, seconded by Professor Lister, it was carried—"That this meeting resolves that the award of the Murchison Memorial Scholarship in London shall be open to students in all the London medical schools, without reference to graduation in any university." Dr. Bristowe proposed, and Dr. Farquharson seconded—"That the committee be empowered to request the Royal College of Physicians to administer the London Scholarship." This was carried unanimously. Professor Lister moved, and Dr. Bristowe seconded—"That, in order that there be not two separate appeals to the public, the promoters of the London and Edinburgh Memorial are willing to guarantee to the St. Thomas's Hospital Committee the sum of £300 for a bust or other memorial in connexion with St. Thomas's Hospital, on condition that all subscriptions received by the latter be added to the common Memorial Fund." The executive com-

mittee was formed, consisting of the following gentlemen:—Mr. Lister, Dr. Ralfe, Dr. Quain, Dr. Farquharson, Mr. Sibley, Sir Joseph Fayrer, Dr. Burdon Sanderson, Mr. Hyde Hills, Dr. A. P. Stewart, Mr. Clutton, Dr. Van der Byl, Dr. Bristowe, Mr. T. D. Acland, Dr. Russell Reynolds, the Hon. Secretaries and Treasurer; and it was empowered to take all steps needful for carrying out the purposes of the memorial.

THE METROPOLITAN WATER-SUPPLY.

AN adjourned meeting of delegates from the various vestries and district boards of the metropolis was held lately at St. Martin's Vestry Hall, to consider the question of the metropolitan water-supply. Mr. E. J. Watherston, the chairman, in opening the proceedings, explained the object of the meeting, and recapitulated the steps already taken. He showed that the facts brought forward had not been disputed, and the conclusions drawn from these facts had been recognised as practicable. He submitted that the suggestions made by the Home Secretary to a deputation of that meeting which had waited upon him recently were not practical, as they were not in a position to make terms with the existing eight water companies before asking Government to take the matter in hand. A well-digested scheme was in existence to bring about the necessary settlements for purchasing the rights of these water companies, and at the proper time it would be produced. He was convinced that the right course would be to appoint another committee to wait upon the Home Secretary to urge the impossibility of the vestries and district boards approaching the water companies, and to ask him to invite the representatives of the companies to the Home Office, with a view of arriving at some definite understanding which might serve as a basis of negotiation, and eventually lead to a practical solution of this most important public question. Mr. Beal did not think the Metropolitan Board of Works were likely to take the matter up again. In his opinion, the vestries and district boards should unite to carry the matter to an issue. He moved—"That a new memorial be addressed to the Home Secretary, setting forth the evils of the present system of supply, but referring mainly to the question of finance raised by Mr. Cross; that he be asked again to receive the deputation, that that point may be fully discussed, and a financial plan developed; that a copy be sent to him one week in advance for consideration, and in order that he may have the opportunity of consulting his colleagues whether they will or not deal with a home question of so deep an interest to the people of London." This resolution was carried unanimously, and it was determined to call the committee together to consider the terms of the memorial.

OPENING OF THE PARKES MUSEUM OF HYGIENE.

IN accordance with previous announcements, the Secretary of State for the Home Department on Saturday last presided at the formal opening of the Parkes Museum of Hygiene, temporarily located in University College. A distinguished company assembled to support Mr. Cross, and letters of apology were read from several noblemen and gentlemen who were unavoidably prevented from being present. In opening the proceedings Mr. Cross expressed his hearty concurrence in objects such as the Museum, which aim at improving the condition of the great masses of the people, and spoke a few words of recognition of the important benefits undoubtedly conferred by Dr. Parkes upon his fellow-countrymen; and proceeded to say, "I shall not rely much on the term by which you wish to distinguish this museum, 'hygiene'; I prefer the good old English word, 'health'—health in its widest sense, by which I mean the physical, social, and moral improvement of the people." He further alluded to the several obstacles which the Museum

would help to remove in the shape of carelessness, indifference, ignorance, and selfishness in many of those who are concerned in and about the dwellings of the poor, and he concluded an eloquent address by formally declaring the Museum open. The Duke of Northumberland next proposed—"That the Parkes Museum, as fulfilling an educational want which has been long felt, is well worthy of public support," which was duly seconded, and carried by acclamation. Viscount Cranbrook also moved—"That the thanks of the meeting be accorded to the Council of University College for the assistance they have rendered in the development of the Parkes Museum," which was seconded by Cardinal Manning; and a vote of thanks to Mr. Cross for presiding, proposed by Sir W. Jenner, and seconded by Professor Huxley, brought the proceedings to a termination. It is announced that the Museum will be open to the public, free, three days in each week.

SCHOOL OF MEDICINE FOR WOMEN.

THE distribution of prizes to students of the London School of Medicine for Women took place last week at Henrietta-street, Brunswick-square, Lord Aberdare presiding. The Dean of the School, Mr. A. T. Norton, of St. Mary's Hospital, in opening the proceedings explained that this session terminated the second year of the School, since its recognition as a school of medicine in association with the Royal Free Hospital. In all, fifty-six students had entered the School since its foundation, of whom eleven joined in October last. Eleven of these students were or would be engaged in medical missionary work. Five ladies who had been partially and one who had been wholly educated in the School had been registered as qualified medical practitioners. He was glad to be able to say that, of the small number attending the School, five were preparing themselves for the medical degree of the London University. The prizes were then awarded, the principal prize-winners being—Miss Prideaux, Miss Marston, Miss Kenealey, and Miss Cradock. Speeches were subsequently made by Lord Aberdare, Mr. Stansfeld, M.P., and others, and the proceedings then terminated.

UNIVERSITY OF DUBLIN: SCHOOL OF PHYSIC IN IRELAND.

DR. BENJAMIN GEORGE MACDOWEL has resigned the chair of Anatomy and Physiology in this school, having occupied it for the past twenty-one years. On October 14 the Provost and Board of Trinity College will proceed to elect a Professor in succession to Dr. MacDowel. There is little doubt that the competition for the vacant chair will be very keen, as the emoluments are large, probably about £700 or £800 a year, and the appointment one to which considerable prestige attaches.

SHOULD MEDICAL MEN BE ELIGIBLE TO SERVE AS CORONERS?

It is stated that the Select Committee of the House of Commons on the Coroners' Bill, of which Sir Matthew White Ridley, M.P., was the chairman, decided, by a considerable majority, to report that, in their opinion, medical men should be disqualified from serving the office of coroner. The publication of the report will be looked for with some interest to ascertain what has influenced the Committee to induce them to arrive at such an apparently extraordinary decision.

ARMY MEDICAL DEPARTMENT.

WE are indebted to the War Office for the following bit of somewhat stale news:—"We are informed that an examination of candidates for commissions in the British Medical Service will be held at the University of London, Burlington-gardens, in August next, the date of which will be announced hereafter."

SIR WYVILLE THOMSON.

OUR readers will be glad to know that all critical symptoms of Sir Wyville Thomson's late attack of illness have disappeared; but we regret to have to add that he does not regain strength so fast as was at first hoped. Some time yet must pass before he can attend to business matters. The services of Dr. Alleyne Nicholson have been secured to undertake his class; and all communications connected with *Challenger* matters must be addressed to Mr. John Murray, Sir Wyville's principal assistant, *Challenger* office, 31, Queen-street, Edinburgh.

THE BOARD OF EXAMINERS, ROYAL COLLEGE OF SURGEONS.

WE learn that during the next examinations at the Royal College of Surgeons Mr. Luther Holden will preside at the Board of Examiners. We were led to state in error last week, when we announced that Mr. Holmes had resigned his seat at the Board, that he had consented to preside during the July examinations.

COLLEGIATE EXAMINATIONS.

It is stated that as many as 205 candidates will undergo their primary examinations for the diploma of membership of the Royal College of Surgeons during next and the ensuing week. At the corresponding examination last year there were only 136 candidates.

ST. ANDREWS GRADUATES' ASSOCIATION.

THE anniversary session of the Association was held at 11, Chandos-street, W., on Wednesday, the 25th inst.; and the dinner at the Langham Hotel, Dr. Macintyre, of Odiham, in the chair.

PRESENTATION.

DR. W. T. THURSFIELD, of Leamington, has just been presented with a handsome *épergne*, "as a token of gratitude from his patients who have benefited by his kindness and skill." The recipient of this testimonial has served two terms of five years on the medical staff of the Leamington Provident Dispensary.

MEDICAL PARLIAMENTARY AFFAIRS.

Infant Mortality.—In the House of Commons, Mr. Cross, in reply to Mr. A. Mills, said that he had issued a circular to the different local authorities and members of the police force, representing that the provisions of the Act for the protection of infant life should be properly put in force, so that persons who may procure the burial of stillborn children may be brought within the control of the prescribed statutes for registration of death.

Public Health in Dublin.—Mr. J. Lowther, in reply to Sir A. Guinness, said that he had made inquiries in Dublin respecting the report of a meeting of Guardians there, at which, as alleged, the chairman refused to receive notice of motion relating to the present high death-rate in Dublin, on the ground that it would be a slur on the Public Health Committee of the Corporation. He had no doubt that a chairman ought to put to a meeting any question relating to the administration of the Poor-law.

Burials.—In the House of Lords, on Tuesday, July 1, Lord Stanhope moved the second reading of the Public Health Act (1875) Amendment Bill, *re* Interments. He referred to the Burials Bill introduced by the Government in 1877, which had been dropped in consequence of denominational opposition. He considered that the opposition in respect of a religious service in churchyards was a sentimental one. The Bill now before their Lordships put the question of burials on a broad and intelligible basis, separating it altogether from the religious consideration. It enabled the sanitary authority to take ground for burial-places where such were required. Lord Granville moved the rejection of the Bill. The second reading was carried by a large majority.

THE SELECT COMMITTEE ON THE MEDICAL ACT AMENDMENT BILL.

THE Select Committee of the House of Commons on this Bill resumed its sittings on Friday, June 27th, at twelve o'clock, Lord George Hamilton occupying the chair, in the absence of Mr. Forster. The examination of Mr. SIMON was continued by Mr. Wheelhouse, Q.C., as follows:—

Does Oxford in any way fulfil the rôle of a medical school?—I do not feel competent to speak upon the general practice of Oxford. It does not, I believe, profess to do more than give the preliminary scientific education. I am not aware that there is anything in the teaching of Oxford that would give a man any knowledge of surgery in any important degree. I believe that there is no complete identification of the Radcliffe Infirmary with the University in the sense of the University controlling the hospital. I have seen papers headed "The Lost Medical School," but I cannot say anything further. I do not feel justified in giving positive evidence on other schools. It would be possible to get a statement of what is usually taught at each of the medical schools in the kingdom, or to have all the prospectuses of all the medical schools in the United Kingdom; and also a tabulated statement of the cost of the diplomata given by each of the nineteen licensing bodies.

There have been great complaints, have there not, both in and out of the profession, that there are so many entrances into it?—Yes; there is at Glasgow, as well as the University of Glasgow, a Faculty of Physicians, which gives licences in the same way as the College of Physicians in London. I do not know what is the cost of a licence of that body. I believe that the licence is understood to confer only the right to practise as a surgeon. I believe it confers its licences separately as well as jointly with other bodies. It is one of the old nineteen portals. I think that if the powers of the General Medical Council were made mandatory there would be no difficulty in dealing with the question of consolidation, as regards issuing the order. Other bodies would comply. With regard to Durham, I believe that the requirements for the diploma of M.D. are substantially the same as elsewhere.

Have you heard any complaint of education being very much shortened with regard to the period during which students in Ireland are compelled to attend lectures?—I have no knowledge of that. I am not aware that an Irish student may pass and receive all the necessary certificates in a period of something under two years. If it were so, it would be an improper state of things. Something of this sort has been before the Executive Committee in regard to the "March hares," but I have had no occasion to deal with this myself. If the General Medical Council had mandatory powers it would, of course, immediately endeavour to set such a thing right. I have not heard it suggested that some bodies in Ireland to which medical students resort do not make a full register of the students who go to it, nor do I see exactly what the effect of it would be. I should, perhaps, add that a letter from the Medical Council at Glasgow was laid before us in March last, incidentally suggesting that some of the so-called preliminary examinations in Ireland were not truly preliminary, but were allowed to take place late; and it was then agreed that a communication be sent to the College of Surgeons in Ireland, for the consideration of the College, and that the attention of the College should be drawn to the recommendation which the General Council had given in regard to the registration of medical students. The General Council has not met since, but a communication from the College of Surgeons is in the hands of the Executive Committee referring to that correspondence, and declining to accept the arbitration of their own branch council as to their mode of dealing with what they term exceptional cases, the recommendation having been that exceptional cases should be adjudged by the branch council, and not by individual bodies. Until the General Council meets I do not know what action will be taken. The General Medical Council has no powers. It has given its recommendation, and the central body declines to accept that recommendation. It would be quite easy to place on the table of the Committee a copy of the correspondence in reference to this matter.

Dr. CAMERON: You said, a moment ago, that the Medical

Council had no power to deal with the various bodies. Has it ever looked for more powers?—In 1870 it expressed its desire for an increase of powers:

I have here a series of memoranda regarding the General Medical Council, from a body which has criticised that Council pretty freely—the British Medical Association; and in these memoranda I find it stated that the General Medical Council has not only not asked to have given it greater power over the licensing bodies, but it has expressly asked the Duke of Richmond not to give it excessive powers, but only to leave it power to talk and suggest measures which it well knows, by an experience of twenty years, will never be carried out. Did the Medical Council refuse greater powers?—It is a matter of history. In 1870 the General Medical Council was entirely at one with Lord Ripon in the application which his lordship made to Parliament, which would have included more general powers to the Medical Council. In one form of the present Government Bill, Clause 15 provided—"That the General Medical Council shall make the examination rules for the United Kingdom." There is no difference of opinion in the Medical Council, so far as I know, as to the necessity for the General Medical Council having the control of the examination rules; but as regards the particular form of this clause, a good reason was urged why it would be more convenient that the rules should be locally framed, one in each division of the United Kingdom, and submitted for approval and, if necessary, for alteration: that reason being the experience that we had had in Dublin of the vast amount of time required to be spent in the preparation of the examination rules. The feeling was that in matters of detail each local board might very safely be judged to have the better knowledge; and all that was wanted was that, in broad intention, the examination rules should be similar in each part of the kingdom. There was not the least intention of shirking responsibility. I think that the British Medical Association has made a mountain out of a molehill. I am a very strong advocate of the Council having ample powers and using its powers, but I entirely agree in the view that it might be more convenient that the examination rules should be, so to speak, drafted in three patterns.

Has the Medical Council exerted or tested to the uttermost its powers in connexion with the advancement of reforms in medical education, of which it avowedly approves?—I think it has had nothing worth calling a power to compel them. It has the power of reporting to the Privy Council, but it would be a very gross case to require to be brought before the Privy Council. The Medical Council might threaten to report a body to the Privy Council, but I doubt if it has ever threatened, and I think it would hardly be expedient to threaten unless they meant to perform.

It seems to me that a good many of the reformatory measures proposed in this Bill might have been effected by the Medical Council had it manifested a little less reluctance to put on strong pressure. Do any or all of the surgical licensing bodies require any examination in midwifery?—I can say, for the College of Surgeons of England, that it would have done so within the last year or two if it had not been constantly expecting an improvement of the law, and that examination in midwifery would be provided by another corporation. We are in default there, I frankly confess. The Council of the College of Surgeons is not satisfied with its position as regards midwifery. No doubt the Medical Council might have addressed us on the subject, but I think that it would not have materially altered the state of affairs. For ten years we have all been waiting for legislation.

Recently has not there been introduced a curriculum at the College of Surgeons of instruction in vaccination?—Yes. This was at the instance of the Government acting through the Medical Council. The Government represented to the Medical Council that there was not sufficient security for the qualifications of men who undertook the office of public vaccinator, and refused to appoint men who could not produce certain certificates.

You have always been a great advocate of the one-portal system?—Not one-portal for the United Kingdom generally. I have been strongly an advocate for an examination which would represent the qualification in all branches of practice, including midwifery. For many years past I have advocated a system of conjoint examinations, one for each division of the United Kingdom, but not for one board to act for the three divisions of the United Kingdom, because I do not see

how it could work. I should propose to have some controlling authority over the three boards, with power of appeal to the Privy Council, and extended powers.

According to the statement of the British Medical Association, it would appear that the outside medical public have been strenuously in favour of a one-portal system for many years past. Is not that so? They say, "By a *plébiscite* of the Council, which was taken some time ago, in 1878, 4910 voted for a one-portal system, and 264 against it; but they maintained that the preponderance of university and corporation members on the Medical Council—or, in other words, the constitution of the Council—has hitherto retarded the satisfactory solution and settlement of this question?"—Oh, but that is a delusion. The Medical Council has not hindered it. On the contrary, Lord Ripon, in shaping his intentions in 1870, was materially influenced by the votes of the Medical Council.

You do not agree, then, with the statement that "the preponderance of university and corporation members on the Medical Council has hitherto retarded the realisation of the wish of the profession for compulsory uniformity of examination throughout the three kingdoms"?—No; and not only that, but the British Medical Association have obstructed legislation themselves since 1870 on the question of direct representation.

One of the objections, I think, which you urged the other day to the introduction of direct representation into the Medical Council was that a Council so constituted would take up a great number of matters which did not properly belong to it?—It was not a hypothetical objection.

You referred to a former agitation, and to an extract from the *Medical Mirror*, stating that such and such subjects would be taken up; but you are aware, are you not, that there has been recently another vote in the profession concerning direct representation? There was another canvass of the profession on the subject, and 5277 replies were obtained, all of which, except 121, were in favour of direct representation. Were such subjects as the remuneration of Poor-law medical officers before the profession last year?—I do not know that they were.

If they were not, it would answer your explanation of the cause of the former agitation?—I think not. When an agitation goes on for three years, the effect survives for a long while. The men who then voted, under the influence of representations of that sort, vote again on these representations. I do not doubt that votes could be collected in the profession; but I doubt whether it would be fair to weigh them quite in proportion to their number. I am not sure that *plébiscite* votes by papers sent out is the best mode of getting judgments. There are matters on which one has to distinguish between what is the real wish and what has reason to support it. If the total number of men on the Register is some 22,000 or 23,000, the fact that 5000 votes are got for this particular plan of Council does not show much for it.

I think the Chairman, in examining you the other day, summed up the objections against direct representation by stating that it proposed to aim at something like a medical trades union?—I think there can be no doubt that the agitation to which I referred, and which was, to the best of my belief, of very great influence in exciting enthusiasm on the subject in the three years that preceded 1870, would not be a very inaccurate representation of that. The programme of the Association proposed, as its chief object, what was called the annihilation of underpaid and unpaid medical labour. But the agitation really went into matters of personal competition. Just let me give you a paragraph or two from one of the 1868 papers—the *Medical Mirror*. Here is an article headed "Medical Parasites: Many honest and praiseworthy attempts have been made in different districts to obtain for arduous medical club services a fair remuneration; and such attempts, after being worked up by great self-sacrifice on the part of many worthy professional men, have, just at the moment of fruition, been utterly frustrated by that dishonorable few who may be safely called the parasites of the profession." The article then goes on to describe how, when certain doctors in a district have protested against a particular price, other doctors are ready to step in. What follows? "What do our medical councillors know of our struggles? What is it to a sleek corporation delegate in Council that we are over-run by parasites who bring down the fair fame of the profession to the level of the vilest trade? What can a

Crown nominee know about these things? We must not rest till our councillors are made responsible to the profession. Until they are elected by the profession, they can never root out for us those weeds in the professional field which we can all recognise as the parasites of the profession, the hindrances to all elevation and to all real progress." A body constituted entirely by direct representation, having the powers at present exercised by the Medical Council, would not act as a trades union without authority; but it would not require an Act of Parliament to have particular sentiments. I do not say that the Council could not be amended in its constitution, but I think that the principles on which it is established are quite clear and intelligible—namely, that there were certain bodies that the State recognised as its agents for the purposes of medical examinations. It recognises them in the constitution of the Medical Council; and opposite them it puts certain members to represent the also pre-existing visiting power of the Crown in relation to those bodies. There does not seem to me to be anything anomalous in the broad principles of the Council. On the contrary, I think that the broad principle is right; but I think it possible that there might be improvements in the curtailment of that principle.

Does not it seem to be likely that members of corporations and representing corporations will be less likely to view with indulgence any thorough-going scheme of medical reform likely to touch the peculiar interests of corporations, than men who are elected from the outside, and who have no interest in the corporations?—I am ready to concede that; but you must recollect that those corporations are already empowered by the Government to be the examining authorities in the profession. Your argument is incontestable that they are not likely to be willing instruments in subordinating their particular corporations to a general system.

And, therefore, is not the claim for direct representation, so far as a certain portion of the Council is concerned, susceptible of argument on the ground that you want some independent influence to control the persons who control the medical authorities?—I think not. Here is a certain definite act to be done—to require mainly that these bodies, where they have competed, shall co-operate. That is not to be done by a vote of the Council, but by the consent of Parliament; and so far as the Medical Council has anything to do with it, it has passed its votes there more than once. Supposing the requisite organisation to be supplied, the Medical Council then becomes an education board. Has not it to deal with questions of this sort where individual questions of jealousy will arise?

But it would be an education board?—But a powerless education board—education without the birch.

I think you said that your object in promoting conjoint schemes has been to raise the standard of entrance into the medical profession. You stated that you did not think that the standard required by the Edinburgh University for its degree of M.D. was at all too high. Would you propose to raise the standard of other licensing bodies to that?—It is difficult to define what the standard of that examination is. If the University of Edinburgh finds that it can examine up to a certain level, and believes that other bodies in its neighbourhood admit men on a lower level, I should adhere to the opinion that those other bodies were below a proper level. The Edinburgh University requires four years. I think it of great importance that a man should not hastily cram up, but should imbibe his learning over a considerable period. If examinations could be supposed to be absolutely perfect, you would not want regulations; but as examinations cannot be perfect, you must supplement them by regulations. My opinion is, to have as few regulations as may be; but all agree that there should be a regulation as to the total quantity of time to be spent in medical examinations, and the common idea is at present that it ought not to be less than four years. That is the time required by the College of Surgeons.

Mr. SIMON added that the question of the great variety in the meanings of the higher degrees had attracted individual attention in the Medical Council; but the Council, taken as a body, had hardly had to consider it. Although the vaccination question had been taken up by the Council, it had been asked to do so by Government, and on that hint the Council had acted. The Council had a *locus standi* on that point; but taking the case of midwifery, the Council would have had no such *locus standi*. In midwifery the law

recognised fragmentary qualifications, to which, of course, every reasonable person objected; but it was part of the law of the land. With respect to the question of curriculum, the Medical Council had made recommendations on the subject from the earliest days of its existence. In regard to colonial practitioners, the Council did not propose to test them, but to have, as it were, an appendix to the Register, and to put into that appendix persons who held qualifications granted under conditions which were satisfactory in other parts of her Majesty's dominions, the Council still retaining the discretionary power of admitting or refusing. The Medical Council would say to the public, "You must form your own opinion as to whether you will employ a foreign or colonial practitioner. These people are guaranteed by foreign or colonial authorities."

The proceedings were then adjourned for a short time. On reassembling,

In reply to Dr. LUSH,

Mr. SIMON said that he still held to the opinions which were laid down by him in the memorandum prepared in 1858 in explanation of the Medical Bill of that year. He considered that the Medical Council, as at present constituted, represented all the interests of the profession. Each member who represented an institution was likely to have a bias for that institution. The representatives of the Crown, like other men, had their personal predilections and biases.

Does it not follow that, if any question arises in the deliberations of the Council which affects either the status or pecuniary interest of such a corporation, its nominee is, to that extent, not independent in forming his judgment?—Quite so. He fights the battle of his particular institution.

Dr. LUSH: I do not impute to any individual member dishonesty or dishonourable conduct. I am alluding to the natural bias which a representative of any body must feel when the interests of that body are taken into consideration.

Mr. SIMON, being asked whether it was not natural that men, having a unity of interest, should say one to the other, "I support your views, and I expect that you will, in return, support mine," said that he had never seen anything like this feeling in the Council. As to whether it was the general feeling of the Council that its present constitution was satisfactory, a resolution had been moved to that effect, but it was felt at once that such a vote, passed by a body in relation to itself, would not be a weighty vote. With reference to direct representation, it seemed to him that every argument advanced on its behalf broke down as soon as it was examined. Although he could not recommend direct representation on the General Council, yet each institution which sent a representative to the Council ought to be quite liberal in its constitution. A great deal of the so-called desire for direct representation would, if analysed, mean this: "We are dissatisfied with having no share in the government of our profession; and that share we think we ought to have." He (Mr. Simon) quite agreed in that proposition, though he dissented from universal suffrage. A man coming into the profession ought either, *ipso facto*, to acquire a vote in the election of the governing body of the institution to which he attached himself, or ought to know that, on condition of higher graduation in the body, he would acquire that vote. I mean that he should have a vote in making the governing body of his corporation. The choice of the representative in the Medical Council must be by deliberation. It was a question of choosing a man according to the details of his personal qualities. The notion of choosing by universal suffrage in relation to such a case was monstrous. What could universal suffrage know of the business qualities of a man at a council of twelve or twenty people? Let the bodies elect the representative to Council; but let the body exercising that function be, by all means, subject to popular vote. A great proportion of the medical men of the country had signed papers saying that they were dissatisfied with the constitution of the Council. This he believed to be the effect of a factitious enthusiasm excited by a medical publication, and it culminated in the shipwreck of the Government Bill. Members of Parliament knew best how signatures were attached to memorials. He would not discredit the sincerity of the signatures to the memorial, which would be almost offensive to those whose opinions he was discussing, and nothing was farther from his intentions; but the collection of the number of signatures must not be taken to prove that the signers of the papers had considered the

subject. There was a certain quantity of diffused ventriloquism in this matter. A short time ago Sir Dominic Corrigan had moved in the Council for the adoption of direct representation, with the result that seventeen voted against it, three for it, three did not vote, and one member was absent. He (Mr. Simon) did not know whether Sir Dominic also wished to reduce the numbers of the Council; but his own opinion was that it would facilitate business, although he could not see a way to that reduction, except under the system of conjoint boards. This would be the system of linking representative bodies, as was suggested in one of the Bills. He should hesitate to speak to the linking of particular groups of bodies. In regard to the question whether most of the members of the Medical Council only held one qualification, whereas by the proposed Bill the double qualification would be required from every candidate for admission to the Register, Mr. Simon said that he was not aware of the fact, but it was quite possible that many of even the most distinguished members of the Council might be possessed of only one qualification, as was the case with himself. In the days of his pupillage it was the custom to depreciate a double qualification. He was not prepared to say that the President held the double qualification. With regard to the College of Physicians, it was considered to be entitled, under an Act of Henry VIII., to give a licence in surgery as well as in medicine.

Mr. MAITLAND said it had been mentioned by Mr. Simon that in the year 1857 Dr. Parkes had called the attention of the Council to the fact that some men who went up for examination to the Army and Navy Board had proved themselves grossly ignorant in subjects for which they had already obtained licences. He wished to know if the Council had taken any steps to ascertain where such persons had obtained their qualifications.

Mr. SIMON said that those cases had come before the Council with all requisite detail as to the source from which the qualifications had been obtained, but the Council had been unable to trace the majority to any particular bodies. The cases were sufficiently numerous to be serious blots on the examination system. There was not a sufficient number of cases established against any one institution as to make it a subject of inquiry, or reference to the Privy Council. There were no cases of the kind at the present moment, to his knowledge.

In answer to Sir TREVOR LAWRENCE,

Mr. SIMON said that he could not say whether it was the general opinion of the profession that there was need of reform, the question being between the very sweeping reform now proposed, and some other scheme which might produce necessary reforms without making radical changes. He did not know what was the consensus of medical opinion on the subject. He was not at all prepared to say that abuses did not at present exist. Although the tendency had hitherto been to improve, he (Mr. Simon) wished to provide by weighty reforms against the possibility of a tendency to fall in the future. As used synonymous with revolutionary, he did not consider the conjoint scheme proposed a radical change. As to compulsory affiliation, by the Bill of 1870 it would be left optional. What was attachment, after all? The essence of the present system was that these bodies examined separately. The new system established that instead of examining separately it should be done conjointly. As to the moral influence which might be supposed to be exercised by the corporate bodies on the members of the profession attached to it, he could not see that it would be greater than that exercised by the General Medical Council. The "club system," improperly so called, was really an admirable one; but whether it should be arrangeable under the scheme seemed to be an open question. Under Lord Ripon's Bill of 1870 it was to be arranged under the scheme as an admirable arrangement. There was this awkwardness in the present clause—that whilst it was assumed to be of public importance that everyone should be affiliated to a corporation, the right was left to the corporation of refusing the applicant. With regard to the standard of efficiency at conjoint examinations, it must be a minimum standard, and it must be framed with a disinterested and discreet regard to what were the requirements of the public, and with reference to the fact that the public had to be supplied with a certain number of practitioners; but those who applied that principle must apply it without having any interest in passing the larger number of persons. As to

whether the new standard under the conjoint system ought, upon an average, to be higher or lower than at present used by the average number of the bodies, he did not suppose that the bodies would recommend the immediate adoption of a higher standard than that under which the mass of men entered the profession. It would be, perhaps, not quite right to assume that the conjoint scheme agreed upon as a voluntary system for England was the one which would be adopted if the General Medical Council had compulsory powers. There was not, to his knowledge, before the Medical Council any proposed curriculum for a conjoint scheme.

I asked Dr. Acland the other day whether he considered that education would have to follow examination, and he did not seem to think that it would. What is your opinion about that?—I have a very decided opinion that education follows examination a very great deal.

Therefore I suppose that educators will teach down to a minimum scheme, and will not teach up to an unnecessary standard, which is not asked for? Education will tend, I suppose, to assimilate itself to the standard of examination?—Yes.

And, therefore, under a conjoint scheme of this sort you will not only raise the standard in some inferior bodies, but you will necessarily lower it in the bodies which are at present very much above the average?—No, because there will still be the demand, I presume, for the higher titles.

At this point the Committee adjourned to Tuesday, July 1.

The Committee resumed its inquiries on Tuesday, Mr. David Plunket in the chair.

Mr. SIMON was recalled and further examined. In answer to a question put by Mr. Errington, the witness stated that he did not agree with the statements made in a petition of the Queen's College, Cork, to the effect "that the advancement of medical science would be largely retarded by the provisions of the Bill, that the uniformity of examination would necessarily lead to uniformity of teaching, and that students would be careless to cultivate advanced branches of science." The statement appeared to him to be ridiculous; and was in effect saying that because a poplar tree and a mulberry tree were planted at the same level in the ground, therefore they would grow to the same height. Ambition would tempt men to try to obtain the higher honours of the profession, the intention of the law being that no one below a certain level should be enabled to call himself a legally qualified practitioner. The qualifications of medical men would not be in most cases the minimum required to pass the lowest examination. With regard to the registration of medical students in certain medical bodies in Dublin, the branch council would look after the registration.

Is it within your knowledge that in many medical schools the practice of giving bogus certificates of attendance at lectures exists?—It could not be within my official knowledge, because if it were I should refuse, as far as it depended on myself, to recognise it. So long as attendance at lectures is nominally required it ought to be enforced. In 1870 the majority of the Medical Council in favour of a similar scheme to the present was a great deal larger than in the present year. Dr. Andrew Wood, who supported the scheme in 1870, opposed it in 1879. Second judgments are not always wiser than first judgments. The King and Queen's College of Physicians memorialised the Privy Council for a Select Committee to be appointed to inquire into the various questions bearing on medical education and registration. Some eminent persons have for years thought that their earthly paradise would be attained whenever a Select Committee was appointed to consider the subject. If the Act of 1858 had given power to the Medical Council to suspend any examining body whose examination fell below a certain standard, giving the offending body a right of appeal to the Privy Council, it would not have rendered useless the present proposal, because the difficulties of establishing such an extremely strong case as would be requisite to justify the Medical Council in suspending a body would be almost insuperable. Laxity of examination would be very difficult to prove against any authority which wished to conceal it. If Parliament instead of passing this Bill were to pass a measure strengthening the Medical Council by giving it very extended powers, that would not be sufficient to meet the questions on which reformation was required.

By Mr. ARTHUR MILLS: Nineteen bodies are undoubtedly too many for licensing purposes, although there is no objec-

tion to the continuance of them in a conjoint form: In the Bill, as it at present stands, there is a clause requiring that the fees to be exacted from the candidates should be the same in all the divisions of the United Kingdom. The Bill of 1870 was opposed by the representatives of the movement for direct representation, and in consequence Mr. Forster withdrew it. In two out of the five Bills introduced between 1840 and 1858 the principle of direct representation was included. One of the arguments in favour of direct representation was that it would improve the constitution of the Council. The medical schools of Liverpool, Sheffield, and Leeds, and the Lancashire and Yorkshire Branch of the British Medical Association, and various registered medical practitioners in different parts of the kingdom, have petitioned in favour of direct representation on the Council. I should hesitate to express a very confident opinion on the weight that ought to be attached to individual signatures and petitions that are very largely signed.

Do you think that nearly 2000 educated men are likely to be induced to sign Parliamentary petitions under the influence of wire-pullers?—I should suppose that the constitution of the British Medical Association gives very remarkable facilities for wire-pulling. I have no means of knowing how signatures to Parliamentary petitions are obtained. I cannot say that those petitions should be considered as influential as they would be if every signature attached to them represented an independent judgment. The principle of direct representation would give a power of voting to a number of persons, only a small proportion of whom took a real interest in medical education, and a large number of whom could not by any possibility know the personal qualities of the candidates. In the Bill which the hon. member Mr. Mills introduced into Parliament it was provided that each candidate for election should have twenty-five nominators, whose names would afford some guidance in the voting of the profession. The present constitution of the Council makes it inevitable that there should be a great deal of talk in proportion to the business transacted. There is no objection to the proceedings being reported by the Press. Nearly all the medical journals now in existence are unanimously in favour of the direct representation of the profession on the Medical Council. The change in the provisions of the Bill of 1878, which made the adoption of the conjoint scheme compulsory instead of permissive, was not in consequence of any amendment proposed by Lord Ripon, but was an act of the Government. That change of front was not due to controversies which were going on in the Medical Council on the subject. The resolution passed by the Medical Council on April 12, in favour of the system of conjoint boards, was one of the powerful influences which led the Lord President to make the change referred to. Several bodies, other than the Medical Council, were pressing the Government on the subject. The College of Surgeons of England remonstrated strongly against the permissive form of the Bill. Legislation of this kind is initiated by communications between the Medical Council and the Privy Council, although those communications may not be formal. Taking the Government as a whole, the permissive Bill of last year was its second thought, because the first Bill (Lord Ripon's) was compulsory; the second was permissive, and the third reverted back to the first proposition.

You think that every member of the profession ought to have a vote in the election of the governing body of his own corporation: why should he not have a vote for the Medical Council?—It may fairly be presumed that he knows something of the body of which he is a member, and the conduct of its affairs. The College of Surgeons of England has something like 10,000 members, any one of whom may, if he pleases, become a Fellow and have a vote in the election of the Council of the College, which elects its representative on the General Medical Council. If its present representative, Sir James Paget's name alone were put to the 10,000 members, there would no doubt be a sufficiently satisfactory majority; but if the 10,000 members were called upon to vote on a number of names, it would be doubtful whether their choice would be so good a choice as that which has resulted in the election of Sir James Paget.

Do you think that the evils resulting from universal suffrage with regard to the election of half a dozen representatives of the profession on the Medical Council by registered medical practitioners would be so mischievous as to be fatal to the usefulness of the Council?—There is

this difference between electing a member of Parliament and a member of the Medical Council: Parliamentary candidates go and show themselves to the constituencies, make speeches, and give promises, but a Medical Council candidate would not come face to face with his constituents. I am aware that those who represent the universities in the House of Commons never canvass their constituents, but they are probably among the best known members of Parliament. The honourable member for the University of Edinburgh, for instance, has been known to his constituency as a teacher for a great number of years. The proposition, if carried out, would add half a dozen members to a body already over-large. I differ from Dr. Acland, who said it did not matter for purposes of business whether the Council consisted of twenty-four or thirty members. A great wrong would be done to the public and to the profession if the obstruction of 1870 were repeated. The provisions relating to direct representation are, in my opinion, undesirable; and it would be very unfortunate and, I think, very wrong to prevent the passing of that part of the measure which is undoubtedly advantageous to the public and the profession, merely because Parliament will not agree to pass the other part. The whole future of the profession will depend on the quality of the Medical Council; and it will be better not to legislate at all than to legislate with the likelihood of the Medical Council being an unsuccessful body. With regard to the corporations, my opinion is in favour of such a constitution as we have in the College of Surgeons, where the suffrage is not universal, but where the power of acquiring the suffrage is universal.

But if anybody proposed to alter the constitution of the Medical Council by the introduction of direct representation, you would say, "No surrender," and "Resist that to the death"?—I should use milder language. I think it would be a dangerous experiment on the constitution of the body on which the future of the medical profession depends.

Examined by Dr. LYON PLAYFAIR: If the Council represents the educational interest of the community, and there are any territorial divisions at all, such as England, Scotland, and Ireland, ought not the proportion of the members to be with reference to the number of qualifications given in those divisions?—I am hardly prepared to say that doctrines of that kind should be taken as the basis for legislation of this kind.

Last year there were 669 licentiates passed in England, 582 in Scotland, and 290 in Ireland. If England was entitled to 11 representatives, according to that scale Scotland was entitled to 9.6 and Ireland to 4.8 representatives?—Yes; but if one division of the United Kingdom gave a great many licences by reason of its giving undue facilities to candidates, you would give a premium to that division of the United Kingdom, whichever it might be. I confess I cannot altogether account for the proportions which Parliament prescribed except by supposing that it was settled, as so many questions are, after a combat carried on in the ante-chambers of legislation.

I find that only forty-seven practitioners commenced their education in the three teaching universities of Cambridge, Oxford, and Durham, and that 244 commenced their education in the University of Edinburgh. Is it surprising that the University of Edinburgh should feel itself aggrieved at having only half a representative on the Medical Council, and that the other universities should have three between them?—But if the disproportion were ten times as great as it is it would not affect the question, because it is not because a place is a great teaching establishment that it is represented on the Medical Council. St. Bartholomew's Hospital, Guy's Hospital, University College, and King's College are all great medical schools, but they are not represented on the Council. The University of Edinburgh teaches medicine very admirably, without doubt.

Do not you see an enormous disadvantage in a poor country like Scotland or Ireland enforcing a candidate to pay thirty guineas for the conjoint examination, and then £25 more to a university for a second examination?—You are assuming that the conjoint scheme is sanctioned and that Parliament makes the fee the same in all the divisions of the United Kingdom. When the proposition for uniformity fees was before the Medical Council the Scotch members did not throw out any suggestion that that would be an onerous burden on their licentiates. The University would take part in conducting the examination for the minor degree, and it

would not have occasion to repeat that part of the examination for the higher degree. The examination for the degree of Bachelor of Medicine at the University of Edinburgh is not higher than would be the Conjoint Board examination in Scotland. I do not see any reason why there should be any additional examination, or why it should charge any fee at all. If a fee of thirty guineas were paid by the Scotch candidate, the scheme would provide for a certain proportion of that to go to the Scotch universities. If there is no difference between the M.B. of the Scotch university and the Conjoint Board qualification a man would not pay £20 for the Scotch degree. If there is a difference, no doubt he would like to have it at the price. The Scotch scheme would contain facilities for the granting of the Bachelor's degree to men educated at the University who went to the Conjoint Board. The examination for the Edinburgh *baccalaureate* represents the proper minimum examination.

Was not Sir Robert Christison, in 1870, in favour of examination in clinical subjects alone as regards the universities?—I think he would have preferred that to the system for which he finally gave his vote, but that his vote was given for Lord Ripon's proposals is certain. At that time the clauses in Lord Ripon's Bill were not inserted, that the universities should be allowed to have their own scientific examinations. I am not familiar enough with the German system to use it as an illustration, but, as regards Scotland, the scheme might very properly provide for the acceptance of the examinations in anatomy and physiology of the universities, provided the conjoint authority were represented at those examinations. The contention of the supporters of the Bill is that there should be no one admitted to the profession below a certain level of knowledge, which level, no doubt, is uniform, but there is no restriction imposed on what there shall be above that level. I cannot conceive in our days faults of examining boards so very grave as to form the basis of representations to the Privy Council. The necessity of interfering with them is because the present system does not give security to the public. There is a "one-portal" system in the Bill for each division of the kingdom.

But has not a man to knock at a second portal after entering the first?—Not a second examining portal.

Do you see any justification for giving a mushroom university a right to pass its licentiates on to the Register without undergoing the Conjoint Board examination, and denying ancient universities in this country that right?—The object is to give the public the best assistance that the law can give to distinguish qualified from unqualified practitioners. That assistance can be given in an efficient form as regards the United Kingdom, but only in a modified form as regards colonial and foreign practitioners. The graduates of foreign and colonial universities will not exactly pass on to the Register, but will be in an appendix, and attention will be drawn to them as comparatively unguaranteed practitioners, although they will have all the rights of guaranteed practitioners.

(The chair was here taken by Mr. Forster.)

By Mr. DAVID PLUNKET: I have no intention of expressing any opinion as to the imputations which were brought forward with regard to the College of Surgeons in Ireland. I cannot undertake to say whether there has been laxity in the preliminary examinations; but no doubt the Irish College of Surgeons has acted in perfect good faith. I have no doubt of the excellence of their qualifications. The representatives of the various corporations and universities who act on the Medical Council act, no doubt, for the general advantage of the profession and the public good, although there are particular discussions in which their individual interests, no doubt, form an element, especially in discussions about the Conjoint Scheme. The maintenance of museums and libraries in various parts of the kingdom by the different corporations is an advantage as much to the public as to the bodies to which they are attached; and care should be taken that those bodies are not deprived of the means of supporting those libraries and museums. As far as regards the College of Surgeons of England, the support of the library and museum benefits no individual member of the Corporation.

Dr. RICHARD QUAIN was then called in and examined by the Chairman:—I have been a member of the General Medical Council, nominated by the Queen, since November, 1863, and have acted as treasurer during the whole of that

period. I have also been Hon. Secretary and Chairman of the Pharmacopœia Committee since 1864. The duties of the Medical Council have been to superintend education and examinations, to form a Register and issue the Pharmacopœia. The Council is well adapted to carry out those objects. With regard to education it would be impossible to do more than it has done. It has visited from time to time the examinations, and corresponded freely with the educational examining bodies, and the result has been an immense advance in medical education and examinations. The scheme for an English Conjoint Board and the regulations for carrying it out are quite complete. All the bodies in England have approved of it with the exception of the College of Surgeons, which has stipulated that the Conjoint Board should be established in Scotland and Ireland, because there is a feeling that the mode in which the English Conjoint Board would be conducted would be such that it would be difficult for students to escape the conditions of examination, and that then they might go where there would be greater facilities for passing. Seven English bodies have hitherto been employed in examining on the same subjects at different times and places, and they have agreed that the examinations shall be conducted at one time and place by one series of examiners instead of by many. The Bill provides that English, Scotch, and Irish examinations should neither of them be lower than the other, by giving the Medical Council power to make regulations, which regulations they would by visitation see were carried out. There would be no great objection instead of that to the Medical Council having power to visit the bodies in Scotland, and see that each of them kept up their examinations to a certain standard. There would be forty-eight examiners appointed under the scheme of the English Conjoint Board; ten would be employed at one time, ten at another, and twenty-eight at another. To insure uniformity, the examinations would be divided into three distinct years, and there would be a regular succession of examiners, who would be supervised by visitors from the Medical Council. There would be no fear that the higher examinations would be "screwed down" to the lower examinations. The higher examinations would be the honorary distinctions of the profession. The object of the Conjoint Board would be to secure uniform competence. I think it most important that recommendations on all important subjects should be made orders subject to the Privy Council, because it is very undignified for the Medical Council to have to appeal to the Privy Council to carry out its recommendations, although if that power were given to them the parties against whom they exercised it should have a right of appeal to the Privy Council. The whole amount received by the Medical Council since its institution has been £137,000. The average yearly receipts during the last eleven years have been £5474, and the average expenditure during the last three years £6300, which has been expended mainly on the meetings of the Council. In return for the payment of these sums, the members of the medical profession have got a legal recognition of their qualifications. The fees paid by medical men would compare favourably with those which were paid by solicitors, who paid more in their year than medical men had paid in twenty-one years. The Pharmacopœia had been regarded as a successful and useful production; 35,000 copies had been sold. When the Medical Council was established there were three Pharmacopœias, and there were many inconveniences experienced in consequence of the great differences between them. The Medical Council would be, as at present constituted, incompetent to perform other duties, as, for instance, duties with regard to sanitary measures or poor-law boards. The Council is not adapted to perform the new duties proposed to be imposed upon it—namely, to give counsel to the State with regard to medical questions to prevent illegal practices with more stringency than at present, or to represent the present interests of the profession. The direct representation of the profession on the Council would be undesirable. I do not think that the best men would come forward; and there is no reason to suppose that the "new ideas" of the profession would be better represented. Questions such as underpayment by boards of guardians, and so on, should be dealt with by such bodies as the College of Physicians or the College of Surgeons, certainly not by a body whose sole duty is to see that education, examination, and registration are properly carried out. Clause 5 in the Bill is unsatisfactory because it would admit on the Register persons

who are not under any professional control, both men and women. A man who is desirous of selling pills or practising with secret remedies would obtain a qualifying certificate from the examining board; he would intimate that his future practice would be the sale of pills, and the corporations would decline to admit him, but still he would be on the Register. I was once strongly opposed to the admission of women, but I gave way. Clauses 6 and 7 are objectionable, because foreigners would be placed in the same position as English graduates, whether they had undergone examination or not. Clause 24 provides for the Council becoming prosecutors, but the Council have always hesitated to accept that rôle on the ground that it is also a judicial body.

By Dr. LYON PLAYFAIR: The universities might conduct all their scientific examinations themselves; the final examination only should be through the Conjoint Board. It should be left quite open as to how the Conjoint Board should be formed.

Your approval of the conjoint scheme depends on the condition that the universities should conduct the first two examinations themselves, and that the final examination should be by the Conjoint Board?—A. Yes, the final examination is the one that the public are interested in. I think both in Scotland and Ireland there are too great facilities for entering the medical profession. No doubt there are many subjects which are not required by the licensing bodies which students will undertake. There will be no tendency to teach down to the conjoint scheme instead of up to the higher degrees, because the teaching must be good. Those who passed a good examination would be known, and the schools would be encouraged to teach well.

By Mr. ARTHUR MILLS: Nineteen examining bodies are certainly too many. Direct representation would periodically cause most unpleasant contentions, strugglings, and jealousies in the medical profession, and there would be no object gained by it. The present state of things is very much as if in every borough of the United Kingdom in which there is a town council the town council returned the member to Parliament instead of the constituents.—I do not see that at all. The Medical Council is a body standing between the State and the public. The State has thought fit to consult the various bodies, who, previously to 1858, were the sole licensing bodies, and to ask them to do certain things, and in return they give certain privileges which will protect the public. I think the medical profession would be very much disappointed at the result of universal suffrage. Direct representation means a complete change in the aims and objects of the Council.

By Mr. ERRINGTON: A conjoint board is an essential feature in medical legislation, as it would save the multiplicity of examinations which students have to go through. I agree with Mr. Simon that affiliation should be made compulsory.

Dr. CAMERON: Would it be competent for a Scotch corporation to grant its degree to any person who had merely passed the conjoint examination in England?—It would be perfectly optional. They would make their own regulations.

By Mr. WHEELHOUSE, Q.C.: The Council have expended £109,000 in twenty-one years. The sum which was paid by qualified practitioners when the Medical Council was established has been and remains invested. It is less expensive for a man to obtain a diploma from the University of Edinburgh than from some other bodies, and that would account for the large number of applicants for Scotch diplomas. A large number of gentlemen applying for and obtaining Scotch diplomas go from England to get those diplomas, and then come back and practise here. The least expensive diploma is that given by the Apothecaries' Hall of Ireland, which costs 10s. 6d.

By Mr. MITCHELL HENRY: I believe if the opposition of the Scotch bodies were withdrawn there would be a joint board in each of the three kingdoms.

You understand that there will be for the Army and Navy Services, and probably for the Poor-law Service, a separate examination?—There may be. I cannot say, but I think they would be wise to accept the conjoint scheme.

Adjourned to Friday.

ROYAL COLLEGE OF SURGEONS, IRELAND.—G. P. M. Woodward, M.D., Deputy Surgeon-General Army Medical Department (retired), on June 26 and 27 passed the required examinations, and has been admitted a Fellow of the College.

ROYAL INTERNATIONAL AGRICULTURAL EXHIBITION.

If ever there was an instance where the stars in their courses have warred against anybody, surely the Royal Agricultural Society have reason for complaint against them. With everything in their favour, but for the elements, a more prosperous or a more useful exhibition could hardly have been invented; but such a success was not to be. The ground on which the "Show," to use the old word, is held is simply a mire of clay, tempered by brick-dust, railway sleepers, and hurdles. Nothing could be more lamentable, for there is much to be seen, much to be admired, and a vast deal to learn, at Kilburn.

Meanwhile we have only to say something about the sanitary arrangements for the crowds who, notwithstanding wind and weather, daily assemble there, and who, if the rain will only hold off, will be vastly increased before the end of the week. In such an assemblage it is plain that accommodation must be afforded for very different classes, but especially is it necessary that those who look after the flocks of sheep and herds of cattle, to say nothing of horses, mules, and all other varieties of stocks, the attendants on machinery and exhibits of all kinds, should be provided for. It is much to be regretted that the Army system of trenches dug and covered over could not be adopted here. But the area occupied by the Show is within the metropolitan sewerage district, and the drainage had, almost perforce, to be conducted into that. It is perhaps unfortunate that the Society did not take counsel beforehand with some good sanitary engineer, for had they done so some more complete system of managing their sewage would perhaps have been the result. As matters now stand, the Society has spent enormous sums in draining ground which could hardly be drained. There is, besides the leading drains, one to every eight yards, and the situation is so high that there ought to be an ample, or more than ample, draining power thus conferred, but the soil forbids. Under such circumstances it would have been best to take special precautions for the disposal of the various kinds of *débris*; but this seems somehow to have been overlooked. For the purposes of the public, nine or ten different *fosses*—there is no other name which will apply—are distributed around the enclosure. Properly constructed urinals can hardly as yet be said to exist. These *fosses* have all the appearance of being simply trenches dug in the soil, but we are assured that they are well drained, though with the extraordinary flow of rain they are apt to get blocked up. But heretofore there has been no attempt at these semi-public places to carry out any proper system of disinfection. A new disinfectant has been accepted, but has not as yet been in these places regularly used; as to its qualities, we shall have something to say by-and-by. But the officials are fully alive to the importance of careful supervision of this division of their labours, and will undoubtedly let no opportunity slip of making everything as healthful about the show-yard as circumstances will permit. Especially they have determined on a careful superintendence of sanitary arrangements, which will undoubtedly be beneficial. As regards the lavatories, etc., connected with the Club, and with those appointed in various parts of the grounds, no fault is to be found. There Moule's earth-closets are universally employed. A somewhat similar plan will probably be adopted as regards the more public places, and dry brick-dust tried as a deodoriser. Much remains to be said of matters interesting to all of us, but these we must postpone till another opportunity.

FROM ABROAD.

MODE OF ACTION OF IRON IN CHLORO-ANÆMIA.

DR. HAYEM, in a communication to the Société de Biologie (*Rév. Méd.*, June 14), stated the results of the examinations made on a great number of patients in his service at the St. Antoine, in order to ascertain the modifications which the blood undergoes under the influence of the treatment by ferruginous substances. He chose chloro-anæmia as a type

of chronic anæmia, this being of such frequent occurrence among the Paris workwomen that it is constantly under treatment in the hospitals. The first effect of the administration of reduced iron, or of an assimilable salt of iron, to a chloro-anæmic woman is to cause the disappearance of the alterations in the globules which constitute the anatomical lesion in anæmia. This action is always sensibly manifested, whatever may be the number of globules. In some cases of slight anæmia the number of globules is not diminished, they simply undergoing change in form; but in other more serious cases both diminution in number and alteration in form take place. In these the iron acts first by restoring the existing globules to their physiological condition, and then by facilitating the genesis of other globules. Some physiologists have maintained that the iron does not become fixed in the blood, its passage through the economy sufficing for the good effects which result from its employment. In order to appreciate the value of this opinion, Dr. Hayem, in conjunction with Prof. Regnault, undertook some experiments on the mode of action of the ferro-cyanide of potassium, which is eliminated unchanged. Several anæmic patients were submitted to its treatment for some weeks, and an amelioration was obtained from its use, as sensible as if an assimilable salt of iron had been administered. But no sooner was it discontinued than the symptoms of anæmia returned with great rapidity; and, in order that the cure should remain definitive, it was necessary that the ordinary ferruginous preparations should be given after the ferro-cyanide. Everybody knows how difficult it is sometimes to get some much enfeebled chlorotic patients to take reparatory aliments, so great is their disgust for all azotised aliment, vomiting often ensuing when they attempt to eat meat. Some women live upon a little bread and salad, and the quantity of urea they eliminate is then very small—sometimes as little as from four to six grammes in the twenty-four hours. In such women treatment becomes very difficult, it being nearly impossible to reproduce appetite in them. In these cases Dr. Hayem employs a means which has furnished most excellent results, and which consists in the daily inhalation of oxygen. The appetite soon returns, the vomiting disappearing at the same time; and so well do the patients then support azotised aliments, that the four regular "portions" of the hospital diet-scale become insufficient. When the urine is examined, the proportion of urea is found to have considerably increased; so that after continuing the inhalations for six weeks, the amount excreted may reach as high as thirty grammes in the twenty-four hours. The number of globules is at the same time increased, but they remain altered in form, showing that the disease is not cured. And, in fact, if after two months' residence in the hospital such patients are allowed to go out without anything more having been done for them, at the end of a week they fall into as complete a state of anæmia as if they had never undergone any treatment. But if, after the oxygen inhalations, a ferruginous treatment be put into force, the cure remains real and definitive. It results, therefore, from Dr. Hayem's experiments, that in order to put patients into a state for the production of physiological globules, iron must be given to them.

THE PARIS INTERNAT.—The *Union Méd.* (June 14) copies some of the figures from the *Annuaire de l'Internat*, from which it appears that from the institution of the *internat*, in September, 1802, to 1878 (i.e., seventy-six years), there have been 2158 *internes*, of whom more than a third have died. The gold medal, so much sought for and appreciated by the *internes*, and only to be obtained after a prolonged and difficult *concours*, has been obtained in seventy instances. The title of *interne des hôpitaux de Paris* confers an undoubted prestige upon its holder; and several administrative bodies, railway companies, etc., will only accept medical officers who are furnished with it. It is very rare for those who possess it not to arrive easily at an important professional position either in Paris or the departments. Still, the *internat* is not essential to the attainment of positions of the highest scientific celebrity, and a long list might be given of the names of those who have achieved such. The following are among these:—Andral, Trousseau, Dupuytren, Velpeau, Alibert, Amussat, Laennec, Piorry, Blandin, Civiale, Flourens, Gerdy, Leuret, Louis, Longet, Monneret, Orfila, Recamier, Requin, Rour, Vidal, etc.

REVIEWS.

A Manual of Organic Chemistry, Practical and Theoretical. For Colleges and Schools, Medical and Civil Service Examinations, and especially for Elementary, Advanced, and Honours Students at the Classes of the Science and Art Department, South Kensington. By HUGH CLEMENTS, of H.M. Civil Service, etc. London: Blackie and Son. Page 283.

THE author tells us that this work appeared in a serial form in the *English Mechanic and World of Science*, down, as the author says, to the end of the "Identification of Organic Bodies," as these papers now appear. Then follows on this a chapter (the only other one) on apparatus, a series of exercises, and "the questions given at the May Examinations during the last ten years" by the Science and Art Department, together with the answers. The aim and scope of the book will thus be abundantly apparent, and those who seek such information as is herein contained will know where to find it.

Materia Medica and Pharmacy. For the use of Medical and Pharmaceutical Students preparing for Examination. By HANDSEL GRIFFITHS, Ph.D., F.C.S., L.R.C.P. Ed., etc. Edited and in part written by G. F. DUFFEY, M.D. Dub., Fellow and Censor of the King and Queen's College of Physicians, Ireland, etc. Dublin: Fannin and Co. Pp. 309.

IT is hard to say anything which would savour of dispraise—if we may use the term—of a book written by one who has gone to join the majority. Nevertheless, we fail to see the immediate object of the author. That he was earnest and zealous in his work, we are quite ready to admit. That he was anxious to separate the study of the *materia medica* and pharmacy from that of therapeutics, is clear. That he should have taken to himself the credit of an endeavour that was made towards bringing about an alteration of the mode of studying these subjects, is characteristic. For the dissociation is old as the hills—has not a physician always prescribed, and an apothecary or druggist dispensed, from time almost immemorial. The tables of the various drugs and their uses is not new, and has here been carried to an inconvenient extreme.

The Brain and its Diseases. Part I. Syphilis of the Brain and Spinal Cord: showing the part which this Agent plays in the production of Paralysis, Epilepsy, Insanity, Headache, Neuralgia, Hysteria, Hypochondriasis, and other Mental and Nervous Derangements. By THOMAS STRETCH DOWSE, M.D., F.R.C.P.E., etc. London: Baillière, Tindal, and Cox.

DR. DOWSE has thought it well to put together in this volume the results of an experience which is undoubtedly great; but, as it seems to us, this has been done either too hurriedly or without due care to eliminate cases and points of doubtful value. We should be sorry to speak ill of any book that contains real good and earnest work—which this assuredly does; but perhaps if Dr. Dowse had taken a little more time over it, and given it more careful consideration, the result might have been better and more satisfactory.

Diseases of the Ear. By GEORGE FIELD, M.R.C.S., Aural Surgeon to St. Mary's Hospital, and Lecturer on Aural Surgery in the Medical School. Second Edition, illustrated with coloured plates and woodcuts. London: Renshaw. Pp. 236.

THE subject of aural surgery has now become one of such importance that we gladly welcome any real addition to our knowledge of the subject, and of all the smaller text books we have recently seen this seems to us to contain the most. It is not a simple didactic treatise which might be culled from the pages of any standard work, but contains real and useful information derived from the author's own experience in the shape of cases and the like. In this and other respects the book is a decided improvement on the former edition. It moreover contains a novel feature: a number of plates representing the ear are given on thick cardboard. The spot where the *membrana tympani* ought to be seen is perforated, and a coloured representation of the drum is pasted on behind.

In this way if, as suggested, the *membrana* be looked at through a speculum, a more correct idea of the state of things in certain abnormal conditions than any heretofore given will be the result. How the parts pasted on will stand wear and tear is another story; probably a thin backing of paper would have done good. Nevertheless, the plan is novel and the book is good—which will suffice for most people.

Skeleton Notes on Analytical Chemistry, for the use of Students in Medicine. By ALBERT J. BERNAYS, Ph.D., F.C.S., etc. London: J. and A. Churchill. 1879. Pp. 51.

UP till within a quarter of a century ago scarcely one medical student in every hundred who sought the diploma of our medical boards was able to tell by chemical analysis whether any given ounce packet of white crystals contained a salutary dose of Epsom salts, or a poisonous one of oxalic acid. Thanks to the vast simplification which has taken place in chemical analysis, associated with the more complete and improved methods of teaching adopted in the laboratories of our schools, about ninety-nine out of every hundred of the students who now pass the examination for the licence of the Royal College of Physicians and other similar examining boards can with facility tell by chemical analysis the exact nature of the contents of almost any packet of powder or crystalline substance placed before them by their examiners. Fortunately this is the case, not merely as showing the higher standard of medical education which is now in vogue, but still more so for the sake of rational medicine. A new era dawned on rational medicine when physiological chemistry passed across the threshold of the sick chamber; and it may be affirmed that every medical practitioner who has an intimate knowledge of practical chemistry is an additional horse added to the team in the advancing chariot of scientific, and consequently exact, medicine. Such being the case, we gladly welcome the appearance of the book whose title stands at the top of this article, which simplifies, as it purposes to do, the means of acquiring a practical knowledge of analytical chemistry by students in medicine, who, as a rule, have not a superabundance of time on their hands, during their student-carcer, to devote to the acquirement of a sufficient amount of practical chemical knowledge to admit of their, with facility, ascertaining by chemical analysis the nature of substances submitted to them for examination. The fact that this is really the sixth edition of Dr. Bernays' little volume—the "Skeleton Notes" being reproduced from the fifth edition of his "Notes for Students in Chemistry"—is proof both of how thoroughly a knowledge of analytical chemistry begins to be appreciated by our medical examining boards, and of how valuable an aid to the acquirement of such knowledge Dr. Bernays' "Notes" have already proved to be. We strongly recommend the little volume to the attention of medical students, for the use of whom it has been specially prepared, in order to prevent, if possible, their falling into the many ludicrous mistakes into which the ordinary run of analytical tables lead those who have not enjoyed the advantage of acquiring a thorough knowledge of practical chemical manipulation in the laboratory; only warning students that they must *work* by the Notes, not use them only as a cram book.

THE NOTTINGHAM DISPENSARY.—The report of the Nottingham Dispensary for the past year, which was presented at the forty-eighth anniversary meeting of the governors and subscribers, shows that 7978 cases have been treated during the period, a diminution of 642 on the previous year. There was also a marked diminution in the number of fatal cases seen and visited by the medical officers; the deaths being returned as 128, against a total of 157 recorded in the year 1877. The smaller number of patients applying for advice is attributed by the Committee of Management to the healthier state of the town, and in support of this view they state that since the epidemic of small-pox, which occurred in the town of Nottingham in 1871-72, when 125 cases were treated at the Dispensary, there has been only one case of this disease brought under the notice of the medical staff. As a consequence, probably, of the universal financial and commercial depression, there has been a slight falling off in the subscriptions and donations received; but some opportune legacies have enabled the Committee, while maintaining the usefulness of the institution, to wipe off a small balance against them.

GENERAL CORRESPONDENCE.

DEPARTMENTAL MAXIMS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Allow me to make a few remarks upon the “maxim” enunciated by the Secretary for War, when advocating the nomination of candidates for the Army Medical Service, now that the schools no more recommend their pupils to go up for examination. Colonel Stanley informed the House of Commons “that competition ceases when there are more vacancies than candidates.”

One gets carried away by the sudden explosion of a great oratorical bombshell; but after a time “silence, like a poultice, comes to heal the blows of sound.” People begin to inquire whether the shell hit the mark or not. Does competition cease when vacancies outnumber candidates? It seems to me that competitors undoubtedly cease to apply for commissions in the Army Medical Department; but that the principle of competition only displays itself the more boldly when competitors will not strive for worthless prizes. Every man of business who does not treat his customers fairly may as wisely say, “Competition ceases when customers go to some other shop than mine.” It would only be the same half-truth, for competition would be as brisk as ever at his fellow-tradesmen’s counters, although it no longer served his own purpose.

What should we say to the embarrassed tradesman if he asked us to beg our acquaintances to deal with him after we had already informed the public that his goods were so worthless that we had ceased to recommend him? Something to this effect probably:—Offer goods worth competing for; deal fairly with your customers; and mark your prices in good bold characters, which admit of no dispute. Honesty is the best policy, after all; and departments which practise it take as their unquestioned maxim—“Competition is rife when the prizes are good enough to attract competitors.” Even the post of public hangman does not go without a show of candidates. I am, &c., POOR RICHARD.

THE GRIEVANCES OF POOR-LAW MEDICAL OFFICERS.

LETTER FROM DR. JOSEPH ROGERS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Would you kindly allow me to inform Poor-law medical officers that I propose to read a paper in the Public Medicine Section of the British Medical Association, meeting at Cork in August next, on the Grievances of the Poor-law Medical Service in the United Kingdom, with suggestions for their removal. Would you further permit me to state that I shall be obliged if gentlemen aggrieved will write and inform me as to their troubles. I am, &c.,

33, Dean-street, Soho.

JOSEPH ROGERS.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN JUNE, 1879.—The following are the returns (by Dr. Meymott Tidy) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, etc.	Nitrogen: As Nitrates, etc.	Ammonia.		Hardness. (Clarke's Scale.)	
				Saline.	Organic.	Before Boiling.	After Boiling.
	Grs.	Grs.	Grs.	Grs.	Grs.	Degs.	Degs.
<i>Thames Water Companies.</i>							
Grand Junction...	21'00	0'165	0'129	0'000	0'012	13'2	4'2
West Middlesex...	20'30	0'037	0'135	0'000	0'012	12'6	3'7
Southwark and Vauxhall...	19'11	0'129	0'102	0'000	0'012	12'1	3'3
Chelsea...	19'80	0'033	0'120	0'000	0'012	12'0	3'3
Lambeth...	20'20	0'070	0'120	0'000	0'012	12'6	5'1
<i>Other Companies.</i>							
Kent...	28'10	0'002	0'450	0'000	0'003	17'6	8'5
New River...	20'60	0'069	0'120	0'030	0'008	13'2	3'7
East London...	21'00	0'048	0'150	0'000	0'011	13'2	4'2

Note.—The amount of oxygen required to oxidise the organic matter, nitrates, etc., is determined by a standard solution of permanganate of potash acting for three hours.

The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—namely, in that of the Grand Junction Company.

MEDICAL NEWS.

UNIVERSITY OF DURHAM.—The following candidates, having satisfactorily undergone the necessary examinations on June 16, 17, 18, and 19, had their respective degrees conferred upon them at a convocation held June 24:—

The Degree of M.D. for Practitioners of Fifteen Years' Standing.—William Travers, M.R.C.P., L.R.C.P., F.R.C.S., etc.

The Degree of M.B.—Hugh T. Bowman; Samuel A. Crick, M.R.C.S., L.S.A.; John Richard Dodd; Charles Green, M.R.C.S., L.S.A.; James Michael Ryan, L.R.C.S., L.A.H., etc.; George T. Trewman, M.R.C.S., L.S.A.; Wm. James Tyson, F.R.C.S., L.R.C.P.; Charles F. Willis, L.R.C.P., M.R.C.S.; Wm. E. Woodman, M.R.C.S., L.S.A.

The Degree of M.S.—Hugh T. Bowman, S. A. Crick, M.R.C.S., L.S.A.

Two candidates failed to satisfy the examiners.

UNIVERSITY OF DUBLIN.—At the Summer Commencements, held on Wednesday, June 25, in the Examination Hall of Trinity College, and presided over by the University Caput, Dr. Hart, Pro-Vice-Chancellor, the Very Rev. the Provost of Trinity College, and the Rev. J. W. Barlow, Senior Master Non-Regent, the following degrees in Medicine and Surgery were conferred:—

Baccalaurei in Chirurgia.—Gulielmus Stewart Lecky, Benjamin Thomas M'Creery, Thomas Orde Smith, Thomas Tilly Moore, Henricus Grey Edwards, Fredericus Carolus Berry, Johannes Battersby, Andreas Murray-Johannes Auchinleck MacMunn, Abraham Malley, Johannes Carolus Hogan, Arturus Ricardus Fredericus Exham, Fitzgerald Blood, C. Miller Thompson.

Baccalaurei in Medicina.—Gulielmus Stewart Lecky, Josephus Dallas Pratt, Henricus Grey-Edwards, Johannes Battersby, Johannes A. De C. Williams, Andreas Murray, Johannes Auchinleck MacMunn, Johannes Singleton Darling, Johannes Carolus Hogan, Gilbert Richardson, Arturus Ricardus Fredericus Exham, Abraham Cohen, Fredericus Gulielmus Warren, Fitzgerald Blood, C. Miller Thompson.

Doctores in Medicina.—Carolus Rolleston Woods, Samuel Warren, Thomas Blair Worthington, Gulielmus Fetherstone H. Lambert, Gilbert Richardson, Edvardus Josephus Latham Blacker, Josephus Lister (*honoris causa*).

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 26:—

Scale, Thomas William, Aberdare.

Sutcliffe, Joseph, 154, Larkhall-lane, S.W.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Morris, William, King's College.

Wheeler, Frederick John, King's College.

The successful candidates at the recent examination for the prizes in Botany, annually given by the Apothecaries' Society, were—

First—Robert Henry Scanes Spicer, of St. Mary's Hospital.

Second—Sidney Harris Cox Martin, of University College.

NAVAL, MILITARY, &c., APPOINTMENTS.

WAR OFFICE.—Surgeon-General James M'Grigor Grant, M.D., retires on half-pay; Surgeon-Major Francis Henry Macfadin, from half-pay, to be Surgeon-Major.

BOMBAY MEDICAL ESTABLISHMENT.—Surgeons Geo. Archibald Maconachie, M.D., George Bainbridge, James Arnott, M.D., Richard Hamilton Batty, William Frederick Knapp, Hamilton de Tatham, M.D., Saunders Barton Haliday, and Bernard Callan Keelan, to be Surgeons-Major.

BIRTHS.

CONSTABLE.—On June 27, at 174, Lambeth-road, S.E., the wife of Joseph J. Caffry Constable, M.D., of a son.

FENN.—On June 23, at Diss, Norfolk, the wife of Charles D. Fenn, M.R.C.S. Eng., of a son.

VERDON.—On June 28, at 410, Brixton-road, the wife of Walter Verdon, Esq., F.R.C.S., of a son.

MARRIAGES.

ALFORD—GRIFFIN.—At St. Catherine's Church, Gloucester, on June 24, Charles Edward Alford, M.R.C.S., of Crewkerne, Somerset, to Ann Mary (Minnie), daughter of the late T. R. Griffin, of Haverstock-hill, London.

BROUGHTON—GIROD.—On May 14, at St. Ann's, Jamaica, Thomas Graham Dundas Broughton, son of James Wardrop Broughton, M.D., to Mildred Maud, daughter of the late Rev. Henlap Girod, Rector of St. David's.

CANE—SKELDING.—On June 24, at St. Pancras, Middlesex, Leonard Cane, M.D., B.S. Lond., of the Minster Precincts, Peterborough, to Alice Mary, second daughter of J. Skelding, Esq., of 16, Euston-square.

DICKS—WILLING.—On June 28, at Chiswick, Clarence, fourth son of John Dicks, Esq., of The Lindens, Grove Park, to Edith Caroline, youngest daughter of G. F. B. Willing, L.R.C.P. Edin., of The Woodloes, Grove Park, Chiswick.

ELLIOTT—BOGUE.—On June 20, at Cork, Thomas Elliott, M.D., of Mansfield, Notts, son of the late Christopher Elliott, M.D., of Ceylon, to Elizabeth de la Cour, daughter of James Bogue, of Valebrook, co. Cork.

EVE—HOUNSELL.—On June 24, at Bovey Tracey, South Devon, Harry Trelawney Eve, Esq., of Woodfield, Hatfield, Herts, to Beatrice Wright, only daughter of H. S. Hounsell, M.D., of The Larches, Torquay, and Strelna, Bovey Tracey.

LOWE—SIMMONDS.—On June 17, at Pembrey Church, South Wales, R. Whittington Lowe, M.D., Army Medical Staff, to Beatrice, youngest daughter of Glassford Simmonds, Esq., R.N., of Trimsaran House, near Kilwelly.

DEATHS.

DUNCAN, ALEXANDER SHUTER, M.D., M.R.C.S. Eng., L.R.C.P. Lond., at Durban, Natal, from dysentery and fever, on May 16, aged 52.

EVERETT, ANNA MARIA, wife of the late George Everett, M.D., at Portswood-road, Southampton, on July 1, aged 57.

ESSON, RICHARD SAMUEL, M.D., late of 37, Warwick-road, Maida-hill, on June 29, aged 59.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

GATESHEAD DISPENSARY.—Assistant-Surgeon. Candidates must possess a double qualification. Applications, with testimonials, to Mr. Joseph Jordon, not later than July 17.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—House-Physician. Candidates must have a recognised medical or surgical qualification. Applications, with testimonials as to character and professional ability, to David Cannon, Secretary, on or before July 8.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Assistant-Physician. Candidates must be graduates in medicine of some recognised university, and Members of the Royal College of Physicians, London, or must become so within twelve months of their appointment. Applications to the Secretary on or before July 8.

WILTS COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be unmarried, duly qualified, and registered. Applications, stating age, and accompanied by not more than six recent testimonials, to Dr. Cooke, Wilts County Lunatic Asylum, Devizes, on or before July 23.

UNION AND PAROCHIAL MEDICAL SERVICE.

*. The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Bath Union.—Mr. Fitzgerald has resigned the Second District. Area 617; population 11,357; salary £43 per annum.

Bedford Union.—Mr. G. N. Swinson has resigned the Turvey District. Area 9149; population 2534; remuneration per case.

East Ward Union.—Mr. R. Buntine has resigned the Brough District. Area 34,100; population 2455; Salary £16 10s. per annum.

Middlesbrough Union.—The Thornaby District is vacant; salary £40 per annum.

South Stoneham Union.—Mr. Robert Shiels has resigned the Fifth District. Area 4000; population 6626; salary £50 per annum.

Wirral Union.—Dr. Hill has resigned the Eastham District. Area 7889; population 3500; salary £30 per annum.

APPOINTMENTS.

Berwick-upon-Tweed Union.—Daniel Heagerty, L.R.C.P. Edin., L.R.C.S. Edin., to the Tweedmouth District.

Bellingham Union.—Robert Jackson, M.D. St. And., M.R.C.S. Eng., to the Second District.

Ely Union.—George M. Sinclair, L.R.C.P. Edin., L.R.C.S. Edin., to the Ely St. Mary District.

Holbeach Union.—John B. J. O'Meara, L.R.C.P. Edin., L.R.C.S. Edin., to the Sutton Bridge District.

Poplar Union.—Thos. Harvey, M.R.C.S. Eng., L.S.A., to the West District.

Saffron Walden Union.—Frank Edwards, L.F.P. & S. Glasg., L.R.C.P. Edin., L.S.A., to the Fourth District.

St. Leonard (Shoreditch) Parish.—Francis H. Walmsley, M.D., M.R.C.S. Eng., L.S.A., as Assistant Medical Officer at the Workhouse and Infirmary.

Teesdale Union.—John F. Oliver, M.D. and C.M. Edin., L.R.C.P. Edin., L.R.C.S. Edin., to the Staindrop District.

Totnes Union.—James M. Randle, M.R.C.S. Eng., L.R.C.P. Lond., to the Ugborough District.

Wolverhampton Union.—James W. Riley, M.R.C.S. Eng., to the Wednesfield District.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—At the seventeenth annual meeting of this Society, held on June 10 in the Infirmary, a large increase was recorded in the communications to the Society, in the number and attendance of members, and in the use of the now important medical library. During the session a museum and pathological room had been added to the Infirmary, available to members. Dr. E. T. Tibbits was elected President, in the room of Dr. Burnie, who retires. For Treasurer, Dr. Whalley was re-elected, with Mr. T. C. Denby to assist. Dr. Goyder was re-elected Secretary. For Committee, Drs. Craig, Dunlop, Burnie, and Rabagliati were elected. For Pathologists, Messrs. T. C. Denby and Mr. J. Appleyard, M.B.; and for Auditors, Mr. Hirst and Dr. Dunlop. A vote of condolence with the relatives of the late Mr. W. H. G. Buckley, M.R.C.S., who had been ten years Treasurer of the Society, and one of its first members, was unanimously passed.

STRANGE COURSE OF A BULLET.—The *Presse Méd. Belge* (June 22) exhibits the following account of a case reported by Dr. Aguilar in the *Annales de la Asociacion Médico Argentino*:—A young man received a ball from a revolver applied close to his chest, which entered it opposite the seventh rib on the right side, and ten centimetres from the median line. Hepato-peritonitis immediately followed, which was cured by leeching and mercurials. The state of the wound continued satisfactory, but the patient complained of very severe pain in the lumbar region, while the discharge of urine, which was at first bloody and then purulent, revealed the existence of a renal lesion. Some time afterwards the urine became clear, and the lumbar pains disappeared. Still, it could not be determined where the ball had lodged, when one day the patient was seized with complete obstruction to the passage of urine, and the catheter came in contact with the ball in the urethra. It was extracted by means of a forceps, measured seven millimetres in diameter, and was covered with incrustations. The ball had, during ten months, pursued its course through the economy, coming in contact with important viscera like the liver and kidney, distending the corresponding ureter, descending into the bladder, and entering the urethra.

DEATHS OF DRs. CAMPBELL AND JACQUEMIER.—Two of the most distinguished obstetricians of Paris have just died within a few days of each other. Dr. Campbell, who, although a native of Scotland, has always practised in Paris, was a *chef de clinique* of Paul Dubois, and possessed of great talent, a noble presence, and most agreeable manners; he succeeded in obtaining perhaps the largest midwifery practice in Paris among the higher classes of the French and of the Anglo-American "colony" of that city. He had been obliged, on account of some cerebro-spinal affection, to retire from practice a year or two since, and he died in the fifty-ninth year of his age. One of the benefits he conferred on his adopted country consisted in the introduction of chloroform, the employment of which he defended against a strong opposition on the part of Prof. Depaul and others in some very vigorous brochures. Dr. Jacquemier, who about two years since was seized with a slight cerebral hæmorrhage, has just died at the age of seventy-three in consequence of a renewed attack. He has contributed some important articles to the "Dictionnaire Encyclopédique des Sciences Médicales"; and his "Manuel des Accouchements," although published thirty years ago, still continues one of the best practical guides in midwifery.

M. KOEBERLÉ'S OVARIOTOMIES.—M. Koeberlé communicated to the Strasburg Medical Society the statistics of his recent ovariectomies. In 1878 he practised seventeen with only one fatal result. Besides these he had four other gastrotomies, viz., extirpation of a fibro-cystic tumour from the broad ligament, two extirpations of fibrous tumours of the uterus, and an exploratory incision in a case of hæmatocele followed by chronic peritonitis, the hæmatocele recurring six months afterwards, and being again treated successfully by exploratory puncture. Of these four cases only one proved fatal. During the last four years M. Koeberlé has practised 100 ovariectomies with eighty-nine recoveries and eleven deaths. He ascribes some influence on the results to his practice of cleansing the peritoneal cavity with carbolic water.—*Gaz. des Hop.*, June 21.

DECREASE OF MEDICAL PRACTITIONERS IN FRANCE.—The official statistical return of the number of all persons engaged in the medical profession during 1876 has just been published, and it is of interest to compare it with the official list for 1866:—

	1866.	1876.
Population	36,469,866	36,905,788
Doctors of medicine	11,457	10,743
Officiers de santé	5,582	3,633
Pharmaciens	5,726	6,232
Midwives	12,314	12,847
Herborists	950	983

This diminution is not of recent date, for, taking account only of doctors and *officiers de santé*, these numbered 18,099 in 1847 and 18,052 in 1853, while in 1866 their number was reduced to 17,039, and in 1876 was only 14,376.—*Journal de la Société de Statistique*, June.

ECZEMATOUS ERUPTIONS ON STUMPS.—M. Duplay observed, at the Société de Chirurgie, that he had met with a condition of the stump after amputation, in two of his

patients, which has not been noticed by authors. In both there appeared on the stump successive crops of eruptions of eczema, presenting all the characteristics and mode of evolution of ordinary eczema. During six months the eruptions resisted all modes of treatment, and disappeared at last by the sole power of nature. Neither of these patients had suffered from eczema before. M. Duplay believes that the eruption in these cases is analogous to those obstinate eruptions which occur on ill-nourished limbs, due to a trophic cause. He thinks that there is neuritis of the extremities of the nerves of the stumps, which is the point of departure of these successive crops of eruption. The eruption is of no consequence in itself, but it delays the wearing of an artificial limb for some months.—*Gaz. des Hop.*, June 28.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The Council of the College have appointed Mr. Phineas S. Abraham, a distinguished graduate in Arts of the University of Dublin, and a Bachelor in Science of that of London, Curator of the College Museum.

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.—On Tuesday, July 1, the Medical Board filled up the surgery to this institution, vacant by the death of Mr. Robert Perssé White, on Easter Day, April 13. Out of eight candidates, Mr. William Joseph Hepburn, F.R.C.S.E., was the successful one.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon*.

THE CASE OF THOMAS MILLERCHIP.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The undermentioned amounts have been received up to date: the donors have requested an acknowledgment in the medical journals:—

	£	s.	d.
"A Friend"	5	0	0
Mrs. Garrett-Anderson, M.D.	1	1	0
Dr. Grenfell Baker, Birkenhead	0	10	6
E. N. T.	1	1	0

Other subscriptions have been promised.

Would you also state that I have forwarded a first instalment of £30 to the Rev. F. N. Beaumont, Holy Trinity Vicarage, Coventry, who has kindly assented to my request that he should use the same, and all subsequent amounts sent by me, for Millerchip's benefit. I am, &c.,

JOSEPH ROGERS.

Mr. J. Adolphus.—Received with thanks.

A Royal Recognition.—In acknowledgment of the services rendered by the Deaconesses of the Protestant Deaconesses' Institute and Training Hospital, Tottenham, during the late Russo-Turkish war, the Russian Government have conferred upon them the decoration of the Red Cross first class.

Children's Playgrounds.—It is satisfactory to notice the active steps which are being taken in several of our large provincial towns to provide more playgrounds for the children of the working-classes. Moreover, these schemes include a feature which, we think, will commend itself to general approval. It is proposed to induce the parents to subscribe towards the necessary funds for carrying them into effect; and subscriptions are to be solicited from trades unions and working-men's clubs, and other kindred industrial bodies, as well as from the heads of families individually. A very trifling (say a penny) weekly payment would provide a very considerable sum. A personal interest would thus be taken on the part of those for whose families the movement is specially undertaken, which from many points of view is desirable and to be encouraged.

Death Certificates in Lancashire.—At the Wigan Police-court, last week, a surgeon at Southport was charged with wilfully making a false certificate "touching the death of a woman at Wigan." Moral wrong was not imputed against the defendant, but the case exhibited culpable irregularity in the certifying of deaths. It appeared that the deceased woman had been attended by a chemist, who acted as assistant to the defendant, and the prosecution alleged that the defendant himself had never seen the woman, but nevertheless the certificate of death delivered to the registrar was signed by the defendant, and moreover had been signed in blank, to be subsequently filled up by the chemist. Counsel for the prosecution animadverted upon the prevalence of this practice in Lancashire and the North of England, and said that the Registrar-General had frequently called attention to it. This statement was confirmed by the defendant's counsel pleading professional usage in extenuation. The case was, however, unfortunately dismissed, the magistrates being of opinion that the evidence did not support the charge as expressed in the summons.

Speculative Building.—In an action in the Kingston-on-Thames County Court a short time since by a speculative builder against a tenant for a quarter's rent, his Honour said that such houses were, as a rule, a pollution to the country and a disgrace to civilisation, but as the defendant was a medical man, and had had the premises carefully examined before he took them, there must be a verdict for the plaintiff, though the Court had no sympathy with him.

A Protest.—The Teddington Local Board has resolved—"That this Board regret the heavy expenses incurred by the Lower Thames Valley Joint Drainage Board in the perfection of Colonel Haywood's scheme, and desire that the Works and Parliamentary Committee should take no further steps in maintaining the scheme; and they strongly recommend the Board to adopt some other scheme for the disposal of the sewage of the combined district."

A Desideratum.—It appears that every man of the reinforcements recently sent out to South Africa was provided with a bandage for binding up wounds. The precaution to provide men with the materials necessary for bandaging wounds is admirable, but is every soldier instructed in the use of them? A portion of their spare time might be utilised to a very practical purpose, in learning how to apply such simple dressing as could be given to injuries in the field, their knowledge of which at the present time is, we more than suspect, generally simply nil.

Cremation from an Economic Point of View.—A correspondent writes from Vienna, that a "cremation apparatus" is about to be erected there. "The success which this mode of burial has met with in other countries, and the yearly expense of buying more land for the ever-spreading cemeteries in the capital, have opened many people's eyes to its advantages, and if the matter is taken seriously in hand, and is backed up by Graf Taaffe, of the 'Interior,' there is little doubt but what we shall soon have an oven and urn temple like the one in the Campo Santa of Milan."

Sophistication.—The following case exemplifies how extensively adulteration is carried on in the utilisation of counterfeit articles of produce for purposes of food or drink. In the Court of Common Pleas recently a case was heard, in which the plaintiff sought to recover £4000, which he had invested in a company for manufacturing coffee out of acorns, and the Excise authorities interfered to prevent the manufacture. It appears the Government had thus previously acted in a similar matter to the knowledge of the defendant, and the plaintiff alleged that his money had been fraudulently obtained from him. A verdict of £3000 was given for the plaintiff.

A Strange Verdict.—An inquest was lately held by Mr. Carter, Coroner for East Surrey, to inquire into the circumstances attending the death of a man, aged forty years, who was found lying dead in an emaciated condition in a loft at Globe-road, Newington. A witness deposed that he saw the deceased the day before his death, when he said, "It is no use supplying me with food; I shall not partake of it." The Coroner said he had not ordered a medical man to make a post-mortem examination, in order to save the county an expense. After a short deliberation the jury returned the following verdict: "That the deceased died from natural decay caused by his own negligence."

The Scurvy.—From the evidence adduced before the Liverpool police-magistrate a few days since, in a case where the captain and owners of a ship were summoned for neglecting to provide sufficient lime-juice for the use of the crew, it appeared that the custom is to buy, in some cases, only just enough for the outward voyage, leaving it to the captain to obtain a further supply at some foreign port. This practice is to be altogether deprecated. Good lime-juice, if properly packed and fortified, as required by the Act of Parliament of 1867, will keep perfectly good, as is well known, for several years. If prosecutions in all cases of scurvy arriving in the United Kingdom were rigorously instituted, the disease would soon become unknown in the British mercantile-marine, except in rare and chronic cases.

Natation.—The London Swimming Club is to be commended for its laudable exertions to promote the art of swimming. It is gratifying to observe that the Club has under consideration a scheme to add eight additional plunging baths to the present deficient number of them in the metropolis, at which gratuitous instruction will be afforded to all comers. Displays of swimming are also given to schools and other institutions by the members of the Club. Any person can have an official permission entitling him to attention at the hands of the honorary instructors by sending to the Secretary a stamped and directed envelope. The address of the Club is 14, Finsbury-square, E.C.

Infant Mortality One Hundred Years ago: Scotland.—Mr. Watson, the City Chamberlain of Glasgow, remarks in his annual report on the vital, social, and economic statistics of that city for the past year, just issued, that of the 14,148 deaths recorded during the year in Glasgow, no fewer than 6686 were those of infants under five years of age. Mr. Watson, in asking the question, Whence arises the infantile mortality? answers: that more than one hundred years ago, when the factory system was not in existence, and whisky was almost unknown, and when Glasgow was little more than a considerable village, the experience as to infantile mortality was not greatly dissimilar. This statement, if correct, seems at any rate to refute the notion that intemperance is the chief cause of infant mortality.

Sanitary Marine Work: America.—The United States Government about four years ago instituted a Marine Hospital Service, and in connexion with it a National Board of Health, the members of which are responsible for all sanitary matters afloat. A Bill has just passed the United States Senate, which provides half a million of dollars at the disposal of the Sanitary Board for the establishment of (so-called) quarantine stations along the south coast.

Healthy Dwellings and Mortality.—The thirty-fifth annual report of the Metropolitan Association for Improving the Dwellings of the Industrious Classes shows that the deaths upon the entire property of the Association have, during the year, been ninety-one, out of an average population of 5402, of which sixty were children under ten years of age. The average rate of mortality in the buildings of the Association has therefore been 16.8 per 1000, while that of the whole of the metropolis was 23.5 per 1000. In the ten registration sub-districts within which the buildings are respectively situated, taken together, the death-rate was 26.4 per 1000. The Association is about to erect dwellings in Hoxton to accommodate seventy-eight families, and arrangements are being made for a site in Hackney to hold buildings for the accommodation of 112 families.

COMMUNICATIONS have been received from—

Mr. FRANCIS VACHER, Birkenhead; Dr. CORNELIUS FOX, Great Baddow; THE WAR OFFICE; THE SECRETARY OF THE ST. ANDREWS GRADUATES ASSOCIATION; THE REGISTRAR OF APOTHECARIES' HALL, London; Mr. EDWARD ENFIELD, London; Dr. EDWARD WIGLESWORTH, Boston, U.S.A.; Mr. RUDOLPH MOSSE, Frankfort-on-the-Maine; THE EDITOR OF "IRON"; THE EDITOR OF "THE LEISURE HOUR"; THE SECRETARY OF THE LOCAL GOVERNMENT BOARD, London; Mr. W. SPENCER WATSON, London; Mr. A. W. MAYO ROBSON, Leeds; Mr. GEO. EATON STANGER, Nottingham; Dr. RUSSELL, Birmingham; Dr. DYCE DUCKWORTH, London; Dr. LUKE ARMSTRONG, Newcastle-on-Tyne; Mr. GEO. BROWN, London; Dr. T. W. THURSFIELD, Leamington; Dr. WOODWARD, London; Dr. GOYDER, Bradford; THE REGISTRAR-GENERAL, Edinburgh; Dr. R. SEMPLE, London; Mr. EDWARD BELLAMY, London; Dr. JOSEPH ROGERS, London; Dr. C. MEYMOTT TIDY, London.

BOOKS AND PAMPHLETS RECEIVED—

Francis Delafeld, M.D., and Charles F. Stillman, M.D., A Manual of Physical Diagnosis—J. R. Wolfe, M.D., F.R.C.S.E., On Colour-Sight and Colour-Blindness in its Relation to Railway and Sea Signals—E. Klein, M.D., and E. Noble Smith, L.R.C.P., M.R.C.S., Atlas of Histology, part v.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Revue Médicale Française et Etrangère—El Siglo Médico—Leisure Hour—Sunday at Home—Boy's Own Paper—Morningside Mirror—Giornale Internazionale delle Scienze Mediche—Veterinarian—Edinburgh Medical Journal—Glasgow Medical Journal—North American Review—Archives Générales de Médecine—Monthly Homœopathic Review—Medical Temperance Journal—Vaccination Inquirer—Medical Inquirer—Analyst.

APPOINTMENTS FOR THE WEEK.

July 5. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

7. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 5 p.m. General Monthly Meeting.

8. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

9. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

SOCIETY OF MEDICAL OFFICERS OF HEALTH, 4 p.m. Annual Meeting.

10. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

11. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

QUEKETT MICROSCOPICAL CLUB (University College), 8 p.m. Meeting.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 28, 1879.

BIRTHS.

Births of Boys, 1161; Girls, 1268; Total, 2427.
Average of 10 corresponding years 1869-78, 2194.9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	681	591	1272
Average of the ten years 1869-78 ...	668.0	616.6	1284.6
Average corrected to increased population ...	...	...	1375
Deaths of people aged 80 and upwards ...	...	...	32

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small- pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West ...	561359	3	7	7	4	5	...	1	...	3
North ...	751729	...	18	8	7	8	...	1	...	6
Central ...	834869	...	11	2	2	4	1	2	...	2
East ...	639111	1	25	9	...	11	1	4	1	3
South ...	967692	4	15	19	3	12	1	5	2	7
Total ...	3254280	8	76	45	16	40	3	13	3	21

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29.607 in.
Mean temperature ...	...	...	...	...	...	56.5°
Highest point of thermometer ...	...	...	...	...	...	72.7°
Lowest point of thermometer ...	...	...	...	...	...	46.5°
Mean dew-point temperature ...	...	...	...	...	...	50.5°
General direction of wind ...	...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	...	1.42 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 28, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending June 28.	Deaths Registered during the week ending June 28.	Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temperature of Air (Fahr.)	Temp. of Air (Cent.)	Rain Fall.	In Inches.	In centimetres.
London ...	3620868	48.0	2427	1272	72.7	46.5	56.5	13.61	1.42	3.61		
Brighton ...	105608	44.9	51	29	73.0	49.8	58.4	14.66	0.32	0.81		
Portsmouth ...	131821	29.4	87	32	...	...	...	...	...	...
Norwich ...	85222	11.4	53	27	71.5	49.0	57.1	13.95	0.61	1.55		
Plymouth ...	74293	53.3	30	26	66.5	50.0	55.7	13.17	0.91	2.31		
Bristol ...	209947	47.2	129	66	...	...	...	...	...	...
Wolverhampton ...	75100	22.1	48	34	65.5	41.9	53.3	11.84	0.51	1.30		
Birmingham ...	388884	46.3	314	114	...	...	...	...	...	...
Leicester ...	125622	39.3	92	36	70.0	43.8	55.8	13.23	0.17	0.43		
Nottingham ...	169398	17.0	122	40	71.0	41.4	56.4	13.55	0.68	1.73		
Liverpool ...	538333	103.8	401	229	66.0	49.5	54.6	12.56	0.42	1.07		
Manchester ...	361819	84.3	234	132	...	...	...	...	...	...
Salford ...	177849	34.4	121	72	...	...	...	...	...	...
Oldham ...	111318	23.9	72	32	...	...	...	...	...	...
Bradford ...	191046	26.5	115	68	66.2	45.8	54.2	12.33	0.81	2.03		
Leeds ...	311860	14.5	210	117	68.0	44.0	54.9	12.72	0.67	1.70		
Sheffield ...	297138	15.1	215	93	68.0	44.0	54.9	12.72	0.43	1.09		
Hull ...	146347	40.3	109	51	70.0	44.0	56.9	13.83	0.39	0.99		
Sunderland ...	114575	41.4	81	54	73.0	47.0	57.8	14.34	1.15	2.94		
Newcastle-on-Tyne ...	146948	27.4	97	70	...	...	...	...	...	...
Edinburgh ...	226075	53.9	134	79	64.0	46.0	54.0	12.22	1.05	2.67		
Glasgow ...	578158	95.8	422	210	63.5	48.5	55.7	13.17	1.61	4.09		
Dublin ...	314666	31.3	240	261	69.6	42.0	56.2	13.44	1.39	3.53		
Total of 23 Towns in United Kingdom	8502896	38.6	5804	3144	73.0	41.4	55.8	13.23	0.78	1.93		

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.61 in. The highest reading was 29.78 in. on Sunday evening, and the lowest 29.41 in. on Wednesday at noon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

ABSTRACTS OF CLINICAL LECTURES

ON ABSCESS IN SPECIAL REGIONS AS DETERMINED BY FASCIÆ.

By EDWARD BELLAMY, F.R.C.S.,

Surgeon to, and Lecturer on Anatomy at, Charing-cross Hospital, and to the Science and Art Department.

No. III.—ABDOMEN AND PELVIS.

THE collections of pus met with beneath the peritoneum (peri- and retro-peritoneal) are usually dependent on inflammatory conditions of those viscera which are enveloped in that "atmosphere" of cellular tissue, the various spaces of which may be examined, at all events theoretically, in the following manner, as originally suggested by Kœnig.

We may obtain a tolerably good idea of the behaviour of pus with regard to the fasciæ and pelvic peritoneum by injecting these cellular interspaces. (a)

First, to demonstrate the probable course of the pus in a subserous (or *supra*-fascial) abscess of the iliac fossa. If an injection-tube be introduced at the edge of the true pelvis at the highest portion of the broad ligament, between the two layers, the peritoneum is immediately lifted off the iliacus and psoas, and then detaches itself from the anterior wall of the abdomen. Some of the fluid may pass into the inguinal canal or along the sheath of the vessels. In the male, merely introducing the tube beneath the peritoneum will suffice, and the fluid often makes its way along the course of the cord, as does pus in some forms of abscess. Again, with regard to *subfascial* abscesses, Kœnig has shown that if we inject the inner aspect of the psoas muscle, beneath Poupart's ligament, the fluid passes immediately into the region of the vessels and psoas itself; and on applying a little more pressure it passes into the sheath of this muscle, or between the bundles of muscular fibre, as high as the lumbar vertebræ, while a still greater amount causes it to extend as far as the quadratus, whilst it simultaneously fills the iliacus muscle and fossa. If the injection be introduced on the outer aspect of the iliaco-psoas tendon, it fills up the entire space enclosed by the fascia iliaca and the ilium; a little more pressure will drive it into the psoas.

Next we find that it rises up into the quadratus, and ultimately reaches the zone of cellular tissue surrounding the kidney. By using a little extra pressure on the syringe, we can imitate the pointing of such collections. Thus, in this latter experiment we find that, when the iliac fossa is full, the contents of the osseo-aponeurotic cavity drag up the peritoneum from Poupart's ligament, and may be felt bulging near the anterior superior spinous process. (*Vide* Kœnig, "Lehrb. der Spec. Chirurg.," Bd. ii.).

The pointing, however, is liable to variation. We may detect it (1) at the outer edge of the quadratus; (2) it may become associated with the psoas tendon, or pass through the ischiatic foramen; (3) it may involve the hip-joint through the bursa iliaca; (4) most frequently it passes beneath Poupart's ligament at the outer aspect of the iliaco-psoas tendon, reaching the surface by the cellular interspace between the rectus femoris and the tensor fasciæ, or it may follow the inner edge of the rectus, and point in the region of the sheath of the sartorius.

In the clinic we find the pus taking precisely the course shown by experiment. We must remember, however, that, owing to openings in the fascia, such as for the passage of nerves or bloodvessels, or irregularities in its application, the subserous abscess may become subfascial, or the converse, or they may be co-existent. These experiments you can all carry out for yourselves, and they will give you a far better idea of the arrangement of the iliac and pelvic continuations of the great aponeurotic system than many of the descriptions of your text-books.

The case I bring before you to-day, a child with sacro-iliac disease, and which you can compare with that of a young man similarly afflicted who was under my care some time since, illustrate the different course taken by pus, both subject to fascial coverings. There are, as you see, two openings or sinuses: the superior corresponds with the

superior portion of the articulation, and the pus has made its way to the surfaces; the other is on the outer aspect of the thigh, and is a little behind the great trochanter. The abscess pointed here and was opened, and a probe passes by two distinct routes, one beneath the gluteal muscles, and the other takes the course of the great sciatic nerve, the former being the more usual, and influenced by the gluteal muscles and fasciæ (sometimes terminating in a peculiar form of anal fistula), and the latter course dependent on the relation the sacro-iliac joint bears to the lumbo-sacral cord, and the strong lamina of pelvic fascia which covers in the pyriformis muscle. In the case of the man, the pus pointed at the inner half of and *above* Poupart's ligament, the abscess no doubt having been pent up behind the iliacus. Here it was naturally confined for awhile by the fascia iliaca, and its position indicated by palpation of the iliac fossa; having made its way either by bursting through this fascia at its weak point, or by some perforation in it, the pus came to the surface. Moreover, the "respiration-line" gave evidence of its position. If the pus extended into the sheath of the psoas, which it is not very likely to do, we should have had the characteristics of psoas abscess, viz., the pointing *below* Poupart's ligament external to the vessels, and above the position of the lesser trochanter. Moreover, the point of differential diagnosis for you to recollect is that there was no flexion of thigh on the pelvis. A large quantity of pus was evacuated, a probe leading directly to the sacro-iliac synchondrosis, which was the seat of disease. The fluid may have taken the course of the obturator vessels and nerve, and, collecting in the pelvic fascia, have given way, or some small perforation have existed in it, pointed in the same manner as the subserous abscesses I have already described. You must bear in mind that sacro-iliac abscesses may point on the inner side of the thigh at the edge of the obturator externus; and, indeed, I carefully examined the position of the orifice of the obturator canal for fluctuation in this instance; although, of course, there is a greater chance of the pus mounting up, and making its way along the course of the vessels.

Unlike lumbar abscesses, which may be palpated in some cases both anteriorly and posteriorly, or the fluid made to pass from one fascial envelope to a communicating one, we find that even if two collections of matter exist, as in both the cases I have brought before you, we cannot empty one collection into the other, on account of the peculiar serrated state of the articulation.

A knowledge of the points of "arrest," which are the normal fixed attachments of fasciæ, are of great importance to the surgeon; as is also a knowledge of their possible deviations—a fact the pus takes care to demonstrate. I have, however, noticed that these deviations are due to irregularities in the origin, course, or distribution of blood-vessels—another important surgico-anatomical condition too much overlooked by teacher and student.

LECTURES ON OPHTHALMOLOGY.

DELIVERED AT GUY'S HOSPITAL.

By CHARLES HIGGENS, F.R.C.S.E.,

Ophthalmic Assistant-Surgeon to the Hospital, and Lecturer on Ophthalmology in Guy's Hospital Medical School.

LECTURE VI.

DISEASES OF THE CORNEA.

(Continued from page 642 of last volume.)

In the following diseases of the cornea there is no intolerance of light.

OPACITIES OF THE CORNEA.

Opacities of the cornea are the result of inflammation, ulceration, or injury.

They are met with of all densities and sizes; the cloudy opacities are known as "nebulae," dense white ones as "leucomata." A dense white opacity, involving the whole cornea, is called a "total leucoma"; an opacity of the same description occupying a part only, a "partial leucoma." Should a corneal opacity have been caused by a perforating ulcer or wound, adhesion of the iris to the cornea ("anterior synechia") will probably be found associated with it.

(a) In carrying out this experiment the fluid runs better if warm.

Fleshy opacities are sometimes met with near the margin of the cornea, and continuous with the conjunctiva; they are composed of granulation tissue, and are frequently the result of burns. I mentioned this form of growth when speaking of disease of the conjunctiva, as false pterigium.

Treatment.

Corneal opacities have always a tendency to disappear, more especially in children. Their removal may be aided by the use of slightly irritating applications, which set up a certain amount of increased vascularity, and thus aid absorption. The remedies generally employed are—drops of sulphate of copper; iodide of potassium or opium; turpentine, pure, or mixed in various proportions with olive oil; calomel powder, or the yellow oxide of mercury ointment. Any of these may be used for some considerable time. If no improvement have taken place at the end of two or three months, and the opacity be so situated as to interfere with vision, an artificial pupil must be made opposite a transparent portion of cornea. If the opacity be disfiguring it should be tinted.

Tinting the cornea can be performed as follows:—The patient lying on a couch, an anæsthetic should be given. The operator should place the wire speculum between the lids, fix the globe with the toothed forceps, paint some Indian-ink upon the opacity, and prick it thoroughly in with a bunch of needles fixed in an ivory handle. The ink should be sponged away from time to time, to allow the operator to see what progress he has made. The opacity having been thoroughly tinted, the speculum should be removed. No bandage need be applied, and no after-treatment is necessary. Very little irritation follows. If after the lapse of a week or ten days the opacity do not appear sufficiently blackened, the operation may be repeated. If the ink be allowed to get into the wound made in the conjunctiva by the toothed forceps a black mark will be left. Care should therefore be taken to fix the globe at a point to which the ink cannot run. Should the anterior chamber be opened the operation must be discontinued, or the lens may be wounded.

CONICAL CORNEA.

Conical cornea (*staphyloma corniæ pellucidum*), as its name implies, signifies an alteration in its curvature, of such a nature that the cornea assumes more or less the form of a cone. The origin of the affection cannot be traced; its most prominent symptom is gradually-increasing myopia, which cannot be remedied by concave lenses. On looking at the cornea in profile its conical form becomes very evident.

On examination with the ophthalmoscope by the direct method, the apex of the cone, which may, however, be the seat of some slight opacity, appears brightly illuminated. Around this bright portion is a dark ring corresponding to the sides of the cone; this being again succeeded by a zone giving a bright reflection, and corresponding to a portion of cornea which retains more or less its natural curvature. The dark portion of the cone changes, and portions of it become brightly illuminated, as the observer alters his point of view. Objects occupying the fundus of the eye are seen through the apex and sides of the cone in an inverted image as in myopia, whilst we obtain a more or less distinct erect image of the same parts through the portion of cornea which still retains its normal curvature. The retinal vessels appear to have a whirling motion as we move our head from side to side. The appearances are quite characteristic, and once seen are not easily forgotten. The existence of conical cornea has but little influence on the inverted image seen in the indirect method of examination.

Treatment.—Conical cornea can only be effectually remedied by operation; we can, however, in the earlier stages improve vision by what is known as a stenopaic apparatus.

A stenopaic apparatus consists simply of a plate of metal or vulcanite, pierced by a small round or slit-shaped opening; such a plate (having an opening of the size and shape which we have by previous trial ascertained improved vision most) can be placed in a spectacle-frame, and used so long as vision is assisted by it.

In performing an operation for conical cornea, our object is to cause flattening of cone, and so restore to the cornea more or less its natural curvature.

Two methods of operating are commonly employed. In the one which you will see performed here, an elliptical portion, including the whole thickness of the cornea, is removed from the apex of the cone.

The operation should be performed thus:—The patient being placed in the prone position, and thoroughly under the influence of an anæsthetic, a wire speculum should be placed between the lids, the globe steadied by seizing the conjunctiva and sub-conjunctival fascia with the toothed forceps at some point near the corneal margin. A long thin extraction-knife should then be thrust through the cone from side to side, and a small flap formed by cutting out either upwards or downwards. The flap so formed should then be seized with iris-forceps, and removed with scissors.

In this operation the anterior chamber is opened, and the cornea collapses as soon as the first incision is made. Care must be taken to plan the operation so that the portion removed includes the most prominent part of the cone, and that the opening left is exactly opposite the pupil.

After the operation the speculum must be very carefully removed, the lids gently closed and bandaged in the usual way. The eye must on no account be examined for a week, so as to give time for the opening in the cornea to fill up. The wound will, in all probability, heal in the course of ten days, the anterior chamber being restored. The margin of the pupil is not unfrequently caught up in the incision, an anterior synechia resulting.

The operation described gives the most satisfactory results, the curvature of the cornea being greatly improved, and a corresponding amount of vision regained. A central opacity is left, and very probably some operation for artificial pupil will be subsequently necessary. In the second operation a superficial portion only is removed from the apex of the cone with a small trephine, a raw surface being left, which, by its subsequent cicatrization and contraction, causes considerable flattening of the cone.

STAPHYLOMA.

Staphyloma (first so called from its supposed resemblance to a grape) has now come to mean a bulge on any part of the eyeball.

Staphyloma of the cornea may be caused by yielding of its structure, but more commonly what is known as corneal staphyloma is not cornea at all, but formed by a prolapse of the iris through a perforation in it, the prolapsed iris becoming firmly coated over with inflammatory material.

Staphyloma is said to be total, when it occupies the whole of the former position of the cornea; partial, when some portion of the cornea still retains its normal curvature. The former usually follows sloughing of the whole structure, as in purulent ophthalmia; the latter, perforating ulcers or penetrating wounds. Total staphyloma should be removed by abscission, an operation which will presently be described; or the eyeball may be extirpated. Partial staphyloma may subside on the performance of iridectomy, or may be removed as follows:—The patient should be placed in the supine position, and an anæsthetic administered, the lids fixed open with a wire speculum, a curved needle armed with fine silk passed through the base of the staphyloma and left. A somewhat elliptical portion should then be removed with a straight cataract-knife, the silk drawn through the edges of the gap made by the removal of the elliptical portion brought together, and the eye bandaged in the usual way. The suture may be removed in the course of three or four days.

Abscission.

The object of the operation of abscission is the removal of that portion of the eyeball (including the ciliary region) situated in front of the attachments of the recti muscles, these being left intact. By this means a movable stump is left, on which an artificial eye can rest, and be moved in harmony with the movements of the sound eye. Abscission is indicated, as already stated, in cases of staphyloma occupying the whole or greater part of the former situation of the cornea, the remainder of the globe retaining its normal curvature. The operation may be thus performed:—The instruments required are a wire speculum, toothed forceps, strabismus-scissors, a triangular cataract-knife, a curved needle and silk. The patient should be placed in the supine position, and thoroughly under the influence of an anæsthetic, the wire speculum should be placed between the lids, the conjunctiva divided all round close to the corneal margin (as for extirpation), and dissected back to the desired extent. Then, with the curved needle, a single suture should be passed through the inner and outer margins of the divided conjunctiva, and the silk left hanging in a large loose loop on the patient's face. The anterior portion of the

eyeball (including the staphyloma), remains of cornea and iris, lens (if it remain), the whole of the ciliary body and sclerotic corresponding to it, should then be removed by transfixing the globe with a triangular cataract-knife just in front of the insertions of the internal and external recti muscles, cutting out upwards in front of the insertion of the superior rectus, and finishing the removal by a sweep of the knife in the opposite direction. The silk should be then drawn up and tied, the conjunctiva being secured by it so as to cover the remains of the globe, and wet lint and a bandage applied. As soon as the parts have firmly healed an artificial eye may be worn. The operation of abscission should always be performed in preference to excision of the globe in children; the stump left to some extent prevents shrinking or non-development of the orbit, which will occur if the eyeball be entirely removed. In older persons, however, excision is to be preferred, as the stump left after abscission is likely to become irritable and painful; in very old persons, especially, suppuration is very liable to occur.

New Growths are sometimes met with springing from the cornea.

Congenital Tumour is a small white flattened elevation, generally situated near the corneal margin and encroaching on both cornea and sclerotic; it lies beneath the corneal epithelium and conjunctiva, and appears to extend pretty deeply into the tissue of both cornea and sclerotic. The growth is present at birth, but usually increases somewhat as the child grows up; it may give rise to astigmatism by causing distortion of the cornea. The growth may be single, or there may be two or three of different sizes; occasionally small hairs grow upon them. The growth can, if it give rise to inconvenience, be shaved off level with the cornea, but as a rule it cannot be entirely removed. Its structure is that of connective tissue.

Round- and spindle-celled *Sarcomata* have also been met with growing from the cornea; they sometimes have pigment developed in them, forming melanotic tumours.

ORIGINAL COMMUNICATIONS.

CASES ILLUSTRATING THE

TREATMENT OF FIBROIDS OF THE UTERUS BY ERGOT.

By G. ERNEST HERMAN, M.R.C.P.,

Assistant Obstetric Physician to the London Hospital.

(Continued from page 672 of last volume.)

Case 12.—Fibroids of Uterus—Hæmorrhage—Pain—Anæmia—Spontaneous Diminution of Hæmorrhage before administration of Ergot—Treatment by Ergot followed by Relief to Pain and Improvement in General Health.

[Reported by Mr. MORGAN DAVIES.]

J. L., aged thirty-eight, lighterman's wife, came to the obstetric out-patient department of the London Hospital on April 10, 1878. She stated that until her present illness she had always enjoyed good health. She first menstruated at the age of thirteen: the catamenia occurred every three weeks; the flow was copious, and lasted seven days; the period was always accompanied with pain, which came on a day before, and lasted till the third day of the flow. It was not relieved by lying down, and therefore she did not lie up at these times. Menstruation was also accompanied with headache and drowsiness, and for two or three days afterwards there was leucorrhœa. In the intervals she felt quite well. From the age of fourteen till her marriage she was a servant. She married at eighteen, and had a child twelve months afterwards. Her labour was easy, and she recovered well. Two years after her marriage she became a widow, and from this time till aged thirty-three was a servant. She then married again. Within a year after her second marriage she miscarried in about the fourth month of pregnancy: she was laid up a week, and the hæmorrhage lasted two weeks. After this her health remained good until November, 1877. Her present illness began in that month, at her menstrual period, with violent shooting pains in the right iliac region and down the front of the right thigh, and tenderness in the

former part; it was relieved, but not removed, by rest and poultices. The quantity of the flow was not altered. At the next menstrual period the pain was not worse than usual. Two months after the first attack the pain and tenderness returned with its former severity. She was in bed two weeks. Ever since then she had suffered from a dragging, bearing-down pain in the hypogastric region, sometimes of a shooting character, and from an aching in the small of the back. The pain was more or less constant, was relieved by rest, and aggravated by exertion. This second attack came on also at a menstrual period; this time the bleeding lasted more than a month, and was very profuse, large clots being passed. After this she was three weeks free; then the hæmorrhage returned, was very copious, but lasted five or six days only. After this the menstrual periods returned at the regular time, and were not greatly increased in quantities. Seven weeks before coming to the hospital, she suffered for a time from severe cutting pain in micturition, and defæcation was painful; these symptoms went away before she came to the hospital. During her illness she had lost flesh. She complained that she was very weak, had no appetite, felt languid, drowsy, and low-spirited; was often hysterical. She did not appear greatly emaciated, but was very pale and anæmic. The fundus uteri could be felt midway between the pubes and umbilicus; enlarged, very hard, and presenting large, rounded, hard, projecting bosses; it was quite movable. Per vaginam, the cervix uteri was found to be healthy; by bimanual examination its continuity with the abdominal tumour, and its free mobility, could be ascertained. The sound passed three inches and a quarter in a direction forwards and to the left, the enlargement of the uterus being chiefly at the fundus and to the right of its cavity. There was slight abdominal tenderness over the fundus. There were no physical signs of disease in any other organ. She was given ext. ergot. liq. 3ss., spt. amm. co. ℞xx., aq. ad ʒj., ter die sum.

May 22.—On account of her complaint about want of appetite, tinct. gentianæ co. 3ss. was added to the mixture.

June 20.—She said she had scarcely any pain, her appetite was better, and she felt stronger. The menses were regular, at intervals of from three to four weeks, and not so copious as before treatment. The condition of the uterus to physical examination appeared the same.

September 25.—The last menstrual period lasted two weeks, and was very profuse—not more than before attendance, but more than since treatment. Her appetite was better, and in all other respects she felt quite well. Half a grain of sclerotic acid was injected into the hypogastric region subcutaneously; and this was repeated on the 28th.

October 2.—Menstruation began four days ago, without pain, and not much in quantity. The injection was repeated.

November 13.—Menstruated the week before last, not copiously. She feels quite well; has no pain whatever; appetite good. Her appearance has much improved; she is not now markedly anæmic. She thinks herself cured, and does not consider it necessary to continue attendance.

III. CASES IN WHICH RELIEF TO SYMPTOMS FOLLOWED THE ADMINISTRATION OF ERGOT COMBINED WITH REST IN BED.

Case 13.—Fibroid of Uterus—Dysmenorrhœa—Sterility—Metrorrhagia—Relief to Hæmorrhage for more than a year following the administration of Ergot with Rest in Bed.

A. C., aged thirty, labourer's wife, came to the out-patients' room of the London Hospital on November 25, 1876. She said that she had fits when eleven months old, which were followed by paralysis of one side. During the last six years she had again been subject to fits, in which she had bitten her tongue; but she had had no fit for the last three months. With these exceptions she had enjoyed good health until her present illness. During the last three years she had gained much flesh. She first menstruated at the age of thirteen. The catamenia had always (until the present illness) been regular, the flow copious, lasting six or seven days. The function had from the beginning been attended with pain so severe as to lay her up—coming on two days before the beginning of the flow, and lasting for about four days; a constant pain, with paroxysmal exacerbations, its seat being described as round the stomach and back, and sometimes down the left thigh; not in breasts. She was married at nineteen, but was never pregnant.

Excepting the dysmenorrhœa, she was quite well until October 1. Then the usual menstrual hæmorrhage, instead of ceasing, continued; the pain also persisted. From this date until the time of her coming to the hospital she continued to lose blood, the hæmorrhage never intermitting for longer than three days. Her pain was precisely like that at the menstrual period; it was absent when the hæmorrhage was not going on. At the time the excessive hæmorrhage began, she suffered from pain in micturition and in defæcation, but not subsequently. She had no other pelvic symptom. No leucorrhœa. Appetite was good; she had no nausea, and the bowels were regular. She slept well. Had no cough or shortness of breath. She was a florid, fat brunette, of medium stature, and well built. On account of her obesity, abdominal examination was difficult. Per vaginam, the cervix was found to be firm, rather conical in shape, about three-quarters of an inch long. A hard, firm, rounded tumour, about the size of a Tangerine orange, was felt to the left of the uterus, with which it appeared to be continuous. The sound passed three inches in a direction upwards and to the right. By the speculum, the margin of the os was seen to be eroded, and easily bleeding. There was no bluish discoloration of the genital mucous membrane. She was given ext. erg. liq. ʒss., spt. amm. arom. ℥xx., aq. ad ʒj., three times a day.

December 2.—The hæmorrhage still continuing, she was ordered ext. erg. liq. ℥xl., acid. gallic. gr. x., aq. cassiæ ad ʒj., three times daily.

16th.—She was still losing blood. She was now given quin. sulph. gr. j., acid. sulph. dil. ℥ijss., aq. ʒj., three times a day.

23rd.—The hæmorrhage ceased, and she remained free from it for the next three weeks.

January 17, 1877.—The hæmorrhage recurred. It continued on and off until January 31, when she came to the hospital and was admitted. During this fortnight she suffered from so much pain in back and stomach as to oblige her to keep her bed.

February 1.—She was ordered ext. erg. liq. ʒss., spt. amm. arom. ℥xx., aq. ad ʒj., three times a day.

2nd.—This was changed to tr. opii ℥xv., acid. gallic. gr. v., aq. ad ʒj., every four hours.

5th.—This was replaced by ext. erg. liq. ʒss., tr. nucis vom. ℥x., quin. sulph. gr. j., acid. sulph. dil. ℥iiss., aq. ad ʒj., three times a day. This she took up to the time of her leaving the hospital. While in the hospital she kept her bed. I unfortunately have no more definite note of her progress than this—that the hæmorrhage ceased three or four days after admission, and did not recur.

27th.—She left the hospital, and discontinued treatment.

April 24.—She again came to the hospital. She was then menstruating for the third time since her discharge. The two former periods each lasted a week, the flow not being so profuse nor attended with so much pain as before; but she still suffered a good deal. She was ordered ext. erg. liq. ʒss., spt. amm. arom. ℥xx., aq. ad ʒj., three times a day.

June 23.—She was examined, and it was thought that the tumour, if altered at all, was somewhat smaller. She continued to take the ergot up to the end of the first week in September.

June 5, 1878.—She again attended. She now considered herself quite well. The catamenia were regular, lasting five or six days, still attended with much pain, sometimes laying her up, but with no more pain than she had always been accustomed to have. No pain except at the menstrual period, or other discomfort about the pelvic organs. No urinary or rectal trouble. No leucorrhœa. She had gained flesh, and her obesity made examination difficult. The tumour to the left of the uterus was still to be felt.

Case 14.—Fibroid of Uterus—Hæmorrhage—Pain—Relief following the use of Ergot with Rest in Bed.

[From Notes by Dr. S. D. CLIPPINGDALE.]

J. K., aged forty-five, widow, admitted into the London Hospital, April 28, 1877. Her history was as follows:—Up to the age of fourteen she had been much neglected, and had lived badly. Since then she had been well off. She had never had any illness severe enough to lay her up, excepting confinements. She had lived in New Zealand from the age of thirty-one till she was thirty-nine, and while there enjoyed better health than at any other period of her life. She first menstruated between fourteen and fifteen. Until her

marriage she was regular, the flow being copious and lasting from eight to ten days, accompanied with only slight pain. The period was always preceded by headache. She was married at eighteen and had five children, the last eighteen years ago; this labour came on at seven months; the child had to be "turned," and was born dead. None of her confinements were either accompanied or followed by any great loss of blood. Since the last child she believed that she had had several miscarriages. She could not say how many, the last being five years ago. She became a widow four years ago. She had suffered from uterine symptoms ever since the last confinement, eighteen years ago. Six months after delivery she suffered from what she was told was "inflammation of the womb," and she subsequently had two similar attacks, one year and three years respectively after the first. These illnesses were attended with pain and the presence of a lump in the left side of the lower part of the abdomen, and feverishness. For three or four years her appetite had been poor, and she had suffered from palpitation and nervousness. For two or three years she had been subject to a scaly rash upon lower extremities, which she attributed to having lived upon salt rations while at sea. For the same period she had suffered from a constant yellow discharge from the vagina. For two years there had been almost daily hæmorrhage, although slight in quantity, the usual menstrual flow being regular as formerly. For one year she had been troubled with constant pain in the back and "bearing down" pain. For the last three months her appetite had been getting especially worse. For a longer time than she could recollect she had had pain on defæcation. During the last twelve months she thought she had gained flesh. She was a well-nourished woman of middle height, broad chest, and masculine features. Her hair was beginning to turn grey, and her arteries were somewhat rigid. The heart's action was slightly irregular, but there was no murmur except a systolic over the pulmonary cartilage. On abdominal examination a hard tumour, the surface of which presented rounded bosses, was felt reaching half-way between the pubes and the umbilicus. On vaginal examination the cervix was found to be very thick; the usual situation of the os was occupied by a transverse groove, in which no opening could be detected. She was therefore examined under an anæsthetic, and then a minute opening was discovered on the left of the cervix, close to the insertion of the vagina. A flexible bougie could be made to enter about three inches. The tumour mentioned was ascertained to be without doubt the uterus; its general outline was rounded, with bulging nodules at the sides and in front; it was very hard, and was freely movable.

The notes of her treatment during the first month of her stay in the hospital have unfortunately been mislaid. She was then, on account of the pain on defæcation, which had been found to be due to hæmorrhoids, transferred to my colleague Mr. Maunder, who operated upon and cured the piles.

On June 22 she again came under my care. It was then noted that with the exception of the time during which she had been under Mr. Maunder's care, the hæmorrhage had been as copious while in the hospital as it was before admission. She was ordered ext. erg. liq. ʒss., spt. amm. arom. ℥xx., aq. ad ʒj., three times a day. (I am not certain, however, that she had not taken this mixture before the day mentioned.) She took this medicine until August 25, when it was changed for quin. sulph. gr. j., acid. sulph. dil. ℥iiss., aq. ʒj.

On November 14 it was noted that her last menstruation had occurred four weeks previously, and was not more profuse than usual. During the two months preceding that date she had had no hæmorrhage. Her pain was better.

Case 15.—Fibroid Tumour of Uterus—Hæmorrhage—Pain—Relief following the administration of Ergot and Rest in Bed.

[From Notes by Mr. E. J. LAWLESS.]

S. B., aged forty-three, labourer's wife, was admitted into the London Hospital, July 16, 1877. Her history was the following:—Until fourteen years ago she was very strong and well. First menstruated between fourteen and fifteen; the periods were painful until she reached the age of sixteen; since then she had never suffered at any period. The flow usually lasted three days, and was not copious. From the age of fifteen until marriage she was a servant. She was married at twenty-one, and had three children; the last

when she was aged twenty-five. This labour was tedious, and the child was still-born. She was so ill afterwards as to have to keep her bed for the three months following the confinement. Since then she had had five miscarriages—the last four years ago. For the last fourteen years she had been generally more or less out of health, but, except leucorrhœa, no definite symptoms were described. Eight years ago she was confined to her bed three months with what was called “gastric fever.” For two months before admission she had been feeling especially weak, and had lost her appetite. For eight weeks she had suffered from constant hæmorrhage, gradually increasing in quantity; from pains in the lower part of the abdomen and in the lumbar region, of a darting character, lasting but a short time; and of bearing-down pains, the hæmorrhage usually following immediately upon these bearing-down pains. The patient looked older than she was. There was some tenderness over the lower part of the abdomen, sufficient to prevent examination by this method of the pelvic organs. Per vaginam the cervix uteri was felt to be thickened, and the body bent forward. The organ seemed about the size of a uterus three months pregnant, but was very much harder. It hardened perceptibly on examination. On the left side of the body of the uterus a tumour was felt springing from it, rounded in shape, and seeming to extend an inch or more from the body of the uterus. The uterus was not fixed. The patient’s temperature was 100.2° . The urine contained no albumen. The patient was kept in bed, and given ext. ergotæ liq. \mathfrak{zss} ., spt. amm. arom. \mathfrak{Mxx} ., aq. ad \mathfrak{zj} ., three times daily. The hæmorrhage ceased on the day after admission. A fortnight afterwards the pain was described as “nothing to speak of,” and the leucorrhœa was much less copious.

August 11.—She was discharged.

22nd.—Given acid. sulph. dil. \mathfrak{Mv} ., dec. cinch. \mathfrak{zj} ., thrice daily.

September 19.—No hæmorrhage since leaving hospital.

(To be continued.)

A CASE OF

STRANGULATION OF THE BOWEL FROM TWISTING OF THE SIGMOID FLEXURE, WITH A FATAL RESULT.

By W. SPENCER WATSON, F.R.C.S.,
Surgeon to the Great Northern Hospital.

THE following notes of this case were taken by Mr. Gillam, the House-Surgeon, before I saw the patient:—

“W. S., aged sixty-eight, watchmaker, was admitted into the Great Northern Hospital at nine o’clock on the evening of January 26, 1879. The only history to be obtained was that he had for a good many years suffered from obstinate constipation, and was generally compelled to take medicine to get an action of the bowels; that about a week ago (January 19) he was suddenly seized with pain, principally referred to the umbilical region, which has never left him, and at times been very severe. He has suffered from vomiting frequently since, the last two days the vomited matter being very offensive. He has had no action of the bowels for the last eight or nine days.

“*State on Admission.*—Suffering from marked collapse; pulse small, weak, and irregular, about 112. There is a large scrotal hernia on the left side, and an inguinal hernia on the right. The patient says that rupture on the right side first occurred about twenty years ago, that on the left about twelve, and neither has been returned the last two or three years. A swelling about the size of a large orange, fairly well circumscribed, and ‘dull on percussion’ (?), could be made out, traversing obliquely the right lumbar and inguinal regions, very tender on pressure. Examination per rectum revealed nothing abnormal. Enemata of olive oil were tried, but always returned after eight or ten ounces had been injected, bringing away with them a few small scybalous masses.”

When the patient was first seen by me the abdomen was somewhat tender over the right iliac and the right side of the hypogastric region, and at this part of the surface a roundish tense prominence could be seen and felt. This prominence was resonant on percussion. Pressure over the scrotal rupture caused a return of the gut with a gurgling

noise, but the instant that pressure was removed the gut slipped down again. The same thing happened with the inguinal rupture on the right side. It seemed, therefore, obvious that the strangulation, if due to the ruptures at all, was high up within the ring, and perhaps in the neck of the hernial sac or sacs: I therefore determined to make an exploratory incision into the sac of the large scrotal hernia, the patient being first chloroformed. No strangulation of the hernial contents was found, and I then enlarged the opening upwards, through the internal ring. The bowel, which was small intestine, slipped out of this opening to the length of three or four feet, and could be returned only with the greatest difficulty. At the same time, dark venous blood having a foetid and almost fæcal odour oozed out from the wound. I now passed my finger deeply into the abdominal cavity, and towards the right iliac region a tense round viscus of the size of two fists was found, at the lower and more constricted part of which, towards the sacral promontory, was a firm rounded band, the nature of which I could not conjecture. Meanwhile the small intestines were being forced out of the wound, and very soon about three yards were lying outside the abdomen. The patient’s condition was now so very unfavourable that, by Mr. Gay’s advice, which coincided with my own views of the case, I desisted from any further efforts, and having with difficulty returned the protruded intestines, stitched up the wound. The patient died at four o’clock on the following morning.

Post-mortem Examination.—The prominent rounded viscus, which during life had been felt in the right flank and hypogastric region, was found to be an enormously distended and very loosely attached sigmoid flexure of the colon which had become twisted on itself and so strangulated. When first viewed it was of a globular form and dark purple colour, and of the size of a child’s head. The firm band felt in front of the sacrum, a little to the left of the promontory, and at the level of the brim of the pelvis, was the mesocolic membrane twisted round on itself with the attached portion of the gut. There was no mechanical impediment in the rectum or bowel below the part twisted. A large quantity of dark, offensive, venous fluid was lying in the pelvis and abdominal cavity. The strangulated portion of gut must have measured several feet in length, and was in a stage very nearly approaching that of mortification.

From the appearances in the neighbourhood of the scrotal hernia it was suggested by Mr. Gay that the existence of the fold of peritoneum extending from the brim of the pelvis towards the scrotal pouch may have contributed to the strangulation. I am, however, of opinion that this fold was too far away from the part implicated to have influenced it; but I think it probable that the hernial pouch may have caused a gradual relaxation and lengthening of the mesocolon, and that the twisting of the gut, which could not occur at this region under normal conditions, was thus indirectly brought about by the hernia.

In reference to the causation of these twistings of the gut, the late Dr. Brinton remarks that they “differ materially in different cases; tumours, abnormal laxity of the meso-colon, and still more frequently hernial displacements of other parts of the canal, are the circumstances often found in connexion with them; and, taken in conjunction with the great age of those subject to them, go far to suggest a failure of peristalsis as forming at least a frequent immediate cause of their occurrence.” It is a question whether at an earlier stage of the case it might not have been possible to relieve the distension of the gut by puncture with a fine trocar; but at the time of the operation, in this instance, there was so much uncertainty as to the exact nature and as to the seat of the obstruction, that exploration of a more thorough kind than was under the circumstances justifiable was the only possible means of arriving at certain indications as to treatment. As was proved afterwards by the post-mortem examination, the constricted portion of the gut could only have been reached after turning aside the whole length of the small and the greater part of the large intestines; and even after death the necessary incisions into the abdominal walls were very extensive. During life they must have been quite as large, and, in the patient’s collapsed condition, this was out of the question. Looking back, however, on the whole circumstances of the case, I think it would have been justifiable to plunge a trocar into the distended viscus, the nature of which at the time was so uncertain. Subsequently, if the

bowel became reduced in bulk, the twisted part might have become spontaneously untwisted, or might have been reached by the hand and dealt with as circumstances seemed to indicate, either by untwisting or by opening and establishing an artificial anus stitched to the wound.

NOTES ON OPHTHALMIA IN NATAL.

By J. K. COTTER, M.D., M.Ch.,
Surgeon Army Medical Department.

EPIDEMICS of ophthalmia of great severity are frequent in Pietermaritzburg during the summer months of December, January, and February, and I was unable to assign any cause for the disease except dust and glare. There was some reason to think that it was spread by want of scrubbing of the wash-basins in the lavatories, but of a garrison of some four hundred men we had often from thirty to forty men in hospital with purulent conjunctivitis; and in some two or three cases the cornea was destroyed and sight lost.

Army medical officers have general instructions to avoid (if not to the patient's real detriment) modes of treatment entailing expense; for instance, to employ cupping in preference to leeching, if possible. Leeches cost sixpence each in Maritzburg; and, of course, there are many cases where cupping is equally, if not more, effective.

In these ophthalmia cases, however, we had to employ leeches invariably, and often repeatedly. I had a certain hesitation in using the cupping scarificator to the temple, as wounding of the temporal artery is so likely, and often so troublesome.

I do not know if there is any novelty in the expedient I resorted to; but, as far as I am concerned, it is original. It was this: I put on large cupping glasses repeatedly, so as to raise the usual large circular cushion, and when I had got it to a safe thickness I then applied the small scarificator with perfect impunity. This may not be a new expedient, but I never saw it or heard of it, neither did any other of the profession in Maritzburg.

I remember hearing in my student days that it was difficult, if not impossible, to cup the temple, as the edge of the glass pressing upon the solid bone prevented bleeding, mechanically; and this, combined with the former objection, made me try to devise some means of securing my object safely and effectually, as it certainly did.

Since then, I have read of a method used by some French surgeon, which I must say appeared to be admirable; namely, to take up several little bits of skin with a firm sharp-toothed bull-dog forceps, and snick them off, thus getting rid of the scarification. Perhaps this method is a little more painful than the scarification. I do not think the blood comes so freely as by my method.

These annual epidemics, of greater or less extent, are constant in Maritzburg. They occurred regularly during my four years' service at Fort Napier in the months I mentioned. And it may be supposed what expense was entailed during the year when we had about forty cases for several months under treatment (in 1876) until I employed my method of cupping.

AUTOMATIC COMPRESSION IN ANEURISM.—In *Lo Sperimentale* for May, Prof. Corradi describes an ingenious mode of making compression which he saw in operation in a case of popliteal aneurism in Prof. Madruzzo's clinic at Perugia—one of considerable value when assistants are not at hand to make digital compression. It consists in a metallic funnel, having at the extremity of its tube an olive-shaped elastic button. At its other end there is a little handle, to which is attached an elastic cord as thick as the little finger and rather more than a metre in length, which is fastened to an iron arm springing from the bedstead. The patient having been conveniently placed, the button is brought to bear on the femoral artery (at the crural arch) and about a finger's breadth around it; and shot are placed in the funnel, so as to secure the necessary pressure being made. When the apparatus has been arranged it is seen to move with the pulsations of the artery. The patient has only to hold with one hand the funnel over the artery, the pulsation in the cord indicating when it is properly placed, and the amount of pressure being regulated by adding or diminishing the shot.

REPORTS OF HOSPITAL PRACTICE. IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

PARALYSIS OF THE LEFT LEG FOLLOWING INJURY—WASTING AND CONTRACTION OF THE LIMB—AMPUTATION.

(Under the care of Mr. HEATH.)

MARTHA H., aged nineteen years, was admitted on June 5. She stated that until about the age of thirteen she was able to walk about like other children. When she was about eleven years old she attended at St. Mary's Hospital with sores of some kind on her legs and thighs, apparently not associated with joint disease, and as a child she had been subject to frequent sore throats. Her father, it was stated, died eleven years ago of consumption; her mother was alive; she had two brothers living, one of whom was very delicate; and one brother and one sister had died of scarlet fever and of "consumption of the bowels." There was thus apparently a somewhat unfavourable family history, but still nothing pointing to serious disease in childhood. In November, 1873, patient had a fall from a swing, alighting on her knees. At the time of her fall she was in considerable pain, and was unable to stand for some minutes, but recovered herself after a little, and was able to walk about as usual. In a few days after this she had again some weakness in her legs, and had to rest at home for about a fortnight. She was again able to walk after this, and continued apparently well for two or three months, when she began to complain of pain in her left knee and hip. The limb on that side gave way under her if she attempted to walk or stand on it. She was then under medical treatment, and a blister was applied over the left groin on the affected side, the symptoms being ascribed to hip-joint disease. On the day following the application of the blister she was unable to use her left leg at all, nor has she been able to use it since. She next began to lose sensation in her foot and leg, but this loss of sensation was more marked at one time than another. In the early summer of 1878 she had complete loss of sensation in her foot and leg, and little black spots began to appear on her foot. These specks burst and discharged a watery fluid. Most of them got well, but one spot at the roots of the toes became larger and has discharged a great deal at times. She complained of a feeling of coldness generally about the affected foot and leg.

On admission, the left buttock is somewhat flattened; the natural depression behind the left trochanter is flattened, and the muscles generally about the hip are flabby and wasted. She complains of pain on pressure behind the trochanter and when the leg is flexed, and refuses or is unable to move the left leg at all. The hip-joint can, however, be put almost perfectly through the natural movements, and there is no shortening or displacement of the bony prominences. The gastrocnemius is contracted; the foot is extended on the leg and slightly inverted. The skin of the foot and of the lower third of the leg is glossy and congested, and at the roots of the toes is a sloughy ulcer about the size of a shilling. There are one or two smaller sores over the dorsum of the foot, and there is one on the inner side of the leg. There is complete anæsthesia of the skin over the lower third of the leg and foot. Sensation becomes gradually restored above this, and is normal just above the knee. There is no hyperæsthesia anywhere. There is some oedema about the foot, but no evidence of any disease about the tarsus. The leg-muscles respond imperfectly to the faradic current. Patient complains of some pain over the lumbar spine on percussion; she has also pain on movement, and aching pain in the same situation after sitting up or lying, for some time in the same position. There is no abnormal spinal curvature.

The general health of the patient seems to be pretty good. She is somewhat anæmic, but well nourished. She has suffered from diarrhoea for about twelve months, but is now better. Her urine is acid and full of phosphates, but contains no albumen or sugar. She menstruated for the first time at the age of thirteen; and after her leg became troublesome the catamenia ceased for six months. She has

been fairly regular since, but occasionally suffers from amenorrhœa. The measurements of her limbs were taken after some days' rest in the hospital, and the left leg was found to measure $7\frac{3}{4}$ in. round the calf, the right leg in the same situation measuring 10 in.; just above the knee the left thigh was 9 in. in circumference, the right being $10\frac{1}{2}$ in. Patient remained under notice for about a fortnight without active treatment; but as the limb was quite useless, and from its condition and position was only an incumbrance to the patient, Mr. Heath decided to remove it. This was done on June 18, the femur being sawn through at the condyles, and covered by antero-posterior flaps. The subsequent progress of the case was good, and calls for no special remarks. The condition of the limb was evidently paralytic, and the trophic changes were probably due to the loss of activity in the muscles. The starting point of the disease was doubtless the injury received; but why the paralysis was so localised, and why its seat was in the left leg rather than in the right, there is nothing in the history to show.

LOOSE CARTILAGE IN KNEE-JOINT—REMOVAL FOLLOWED BY EXTENSIVE SUPPURATION—RECOVERY.

(Under the care of Mr. HEATH.)

Ernest T., aged twenty-two, was admitted on April 10, with symptoms of a loose body in the knee-joint. He had been under Mr. Heath's care some months before, and a subcutaneous operation had been performed with the hope of fixing the body. This operation had proved unsuccessful, and patient found himself unable to walk any distance. On admission he was in other respects a healthy, well-nourished man, and on April 11, Mr. Heath cut down upon the joint, with all antiseptic precautions, and removed from the capsule on the inner side, to which it was attached, a small loose cartilage about the size of the little finger tip. The subsequent progress of the case, which was marked by an extraordinary amount of suppuration about the thigh and leg, is shown in the following note. The antiseptic dressing was kept up from the first to the last, and Mr. Heath attributed it to the dressing that the case did not go entirely to the bad. The antiseptics, although they did not keep down the discharge, kept it, he believed, sweet and clean.

April 17.—The discharge from the wound has become purulent and is increasing in quantity. The temperature has risen to 103° Fahr. Patient is taking two grains of quinine three times a day.

30th.—The temperature has been fluctuating from 102° to 103° . The whole limb is more or less swollen, and this swelling seems to increase day by day.

May 11.—There is fluctuation across the thigh as high as the junction of the middle and upper thirds. To-day patient was anæsthetised, and the original opening was enlarged. A counter opening was also made on the outer side of the joint, and another on the outer side as high as the upper limits of the pus. Drainage-tubes were passed through the joint, and from the lower to the upper wounds on the outer side.

14th.—There is still a very great discharge of pus, which is not so sweet as it might be. There was some hæmorrhage on the night of the 11th, but there has been none since. Patient looks pallid and careworn, and sweats profusely on slight exertion. The temperature remains high; his pulse is very feeble and rapid. He takes his diet fairly.

20th.—Patient seems on the whole better, but he is still very weak. The amount of pus discharged is lessened, and is more serous in character. The dressings removed are fairly sweet. Patient's general health improves; his appetite is good, and he takes full diet, and half a pint of brandy a day, besides wine and eggs. The pulse is still rapid and feeble; his temperature this morning was $100\cdot6^{\circ}$ Fahr.

22nd.—Yesterday it was noticed that matter was bagging under the fascia on the inner side of the leg, over and below the tubercle of the tibia. Mr. Heath to-day made an incision into it, letting out a quantity of thick pus. The thigh is less swollen and is altogether improved. In other respects patient keeps much about the same. Temperature in the morning $100\cdot6^{\circ}$ Fahr.

26th.—He is very much better. The swelling in the thigh has almost disappeared, and the pus discharged from the wound is small in quantity and healthy. Temperature is about $99\cdot4^{\circ}$ in the morning, and generally rises a little at night. He sleeps and takes nourishment well.

28th.—The leg was dressed yesterday, and the discharge is healthy and small in amount. He complains of little pain and sleeps well.

June 3.—The drainage-tube through the joint has been removed, and patient is rapidly improving in every way. The temperature for the last four days has been 99° , only once having risen to 100° . Pulse regular, but small and compressible, is 108 to the minute.

12th.—The leg is now dressed only once in every three days. All the drainage-tubes have been removed. The pus is very small in amount. The temperature is normal. He is a little troubled with indigestion.

14th.—There is now no discharge of pus, and patient's health is fairly good. Pulse is 84; temperature 99° .

July 5.—The sinuses have now all healed, with the exception of a small superficial one on the outer side. The circumference of the right leg taken on a level with the tibial spine is the same as that of the left taken round the lower border of the patella; that of the right leg is 14 in., that of the left or sound leg is $13\frac{1}{2}$ in. over the middle of the patella. From the anterior superior iliac spine on the right side there is a distance of 19 in.; on the left side the same points are 20 in. apart. There is now no power of flexing the leg or thigh, but it is extended and in good position. No tenderness exists about the joint, but there is still some local heat, and the skin and subcutaneous tissues are slightly cedematous. The patella is freely movable from side to side, and no adhesions or grating are felt. Any lateral movement of the leg on the thigh causes considerable pain.

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Medical Times and Gazette.

SATURDAY, JULY 12, 1879.

THE SELECT COMMITTEE ON MEDICAL REFORM: THE EVIDENCE OF DR. WATERS.

THE Select Committee on the Medical Act Amendment Bill has held two meetings since our last week's report. At the first of these, on Friday, July 4, Dr. Waters, of Chester, the Chairman of the Medical Reform Committee of the British Medical Association, was the only witness examined. His evidence was concluded on Monday, July 7, when Dr. Glover, of Highbury, was also under examination. The next meeting of the Committee takes place to-day (Friday).

Hitherto we have had to record only the evidence of three prominent members of the General Medical Council, viz., Dr. Acland, Mr. Simon, and Dr. Quain. As we have seen, these gentlemen displayed most striking unanimity in their estimate of the merits of the existing Medical Council in all its relations. But we have now begun to hear the other side of the question, for both Dr. Waters and Dr. Glover found serious fault with the Council, not only in respect of its constitution and powers, but also in regard to the manner in which it had discharged the duties actually assigned to it. On another great question—that of the desirability of the adoption of the Conjoint Board scheme—Dr. Waters agreed with the previous witnesses, while Dr. Glover thought the Conjoint Board scheme, though a decided improvement on the present state of matters, would not be so satisfactory as the establishment by the General Medical Council of an examination board in each division of the kingdom, quite independent of the licensing bodies. The details of the examination of these two gentlemen our readers will find, as usual, in another column. In this column we shall have space to notice only the more important points in the evidence of Dr. Waters.

Dr. Waters began by giving an account of the British Medical Association: its early history, its constitution, and the purposes it had in view. He thought that, from the character and number of its members, the Association might be fairly regarded as representing the profession at present. He pointed out that at a very early period of its existence it had directed attention to the subject of medical reform, and had called for improvements in preliminary and professional education, for uniformity in the minimum examinations, for registration, for reciprocity of practice, and for the formation of a General Medical Council. Some of these objects had been obtained in 1858; others had not. Thus, though a Medical Council had been instituted, its constitution was not in accordance with the desires of the Association, which had all along demanded the direct representation of the profession in the Council.

In regard to Conjoint Boards for examination purposes, the present feeling of the Association was decidedly in favour of them, for it was believed that a number of men of deficient attainments, both in general and in professional knowledge, were allowed to enter the profession through the facilities afforded by rival licensing bodies. The Association, indeed, flattered itself that the proposal in the Government Bill for the compulsory formation of conjoint boards was to some extent due to its own action in this question. We think, however, with Mr. Simon, that the chief result of the legislative agitation of the Association has been to prevent or retard the formation of such conjoint boards, through the opposition the Association has raised to any medical legislation on this matter which should not also provide for modifications in the constitution of the Medical Council. In this respect we think the British Medical Association has certainly subordinated what Dr. Waters admits would be a public good to other and less important considerations.

Coming to the constitution of the Medical Council, Dr. Waters expressed the strong desire of the British Medical Association for the direct representation of the profession on the Council. He repudiated entirely the insinuations that had been made that the numerous signatures in favour of direct representation did not represent the *bonâ fide* judgment of the members of the Association. They had all along contended for the direct representation of the profession; and when the General Medical Council was instituted they then felt that the corporation representatives were far too numerous. They could not see how these representatives, in whatever way they might be elected by the corporations, could do other than take special care of the interests of these

bodies, which might be quite different from the interests of the profession at large. The force of this line of argument is apparent at once, and was partially admitted, it will be recollected, by Mr. Simon.

But Dr. Waters found many other arguments in favour of direct representation from the culpable manner in which the Medical Council had discharged its duties. Now, though we are quite willing to allow that the Council has been guilty of many shortcomings, we cannot say that it is equally clear to us that the results would necessarily have been very different had several of the members been the direct nominees of the profession. In this respect Dr. Waters and those who act with him over-ride their hobby. Direct representation is their panacea for all the objectionable features in the Council and its doings, and, as we have already remarked, they have subordinated, and continue to subordinate, other more important considerations to this hobby. For Dr. Waters declared that there was still little hope that any legislation would be effected which ignored this demand. Our belief is that direct representation will be, in itself, very far from effecting all that is expected from it, though, on the other hand, we cannot say we anticipate that it will do any very great amount of harm to the efficiency of the Council, if other interests continue to be fairly represented in that body. But to complete our summary of Dr. Waters' evidence.

He thought the Council had been specially careless in regard to the preliminary general education of candidates for medical qualifications, and he referred to instances of gross ignorance displayed by such candidates and by qualified men. Though the Council had taken some action in reference to this matter, it had been far short of what was necessary. He thought if there had been direct representatives of the profession in the Council those deficiencies would not have been passed over so lightly. Though in respect of both preliminary and professional education the medical profession had improved much of late, the improvement had not been at an equal pace with the enormous progress of education generally during the last generation.

He thought the Medical Register was fairly well kept, though it still contained many inaccuracies. He contended, however, that the Council ought to have been more zealous than it had been of the honour of the profession, by removing from the Register the names of persons who had been guilty of unprofessional conduct. If the Council's powers had not been sufficient for this, it ought to have taken the necessary steps for obtaining them. The Council, he thought, had fairly discharged its duties in regard to the Pharmacopœia, though that treatise was hardly kept up to the requirements of the day.

Dr. Waters was also examined at length as to the mode by which direct representatives of the profession could be elected. In this connexion he detailed the mode of the election of the members of Council of the British Medical Association, showing that they were mainly appointed by the suffrage of the members. He thought that the number of members of the General Medical Council should continue as at present; and he considered that six nominees would be adequate to represent the professional interest. To make room for these he would disfranchise altogether certain of the corporations, and link others together for the purposes of representation. He would propose that each candidate for the representation of the profession at large should have at least twenty-five nominators; that voting-papers should be issued by the Registrar; and that these papers should be signed, witnessed, and returned to the Registrar, who would superintend the counting of the votes. This is similar to the process adopted by the Medical Benevolent College, but we fear that the magnitude of such an undertaking, when the whole medical

profession through the kingdom is concerned, has not been realised by the promoters of direct representation. Dr. Waters proposed that such an election should take place only once in five years. But what of vacancies occurring during the quinquennial periods? The election of a single representative to fill a vacancy might occur frequently, and would be quite as troublesome as if all the six seats had to be filled up. But the whole scheme, in the form proposed, bristles with practical difficulties.

Dr. Waters thought that such a system would send up to the Council men quite as eminent as the present members of that body, and men, too, who understood better the wants and needs of the profession, and the defects of the teaching and examining boards. We believe there is considerable force in his statement that men who have recently embarked in practice understand better than their seniors the relative merits of the various examinations through which they have recently passed, for the utterances of Mr. Simon and of Dr. Quain before the Select Committee certainly betrayed much ignorance regarding the qualifications now necessary to pass such an examination as the M.B. of the Scotch Universities.

Dr. Waters thought the reformed Medical Council should devote some attention to important matters which the present Council had never taken up, as in regard to questions of public health, etc. All we would say in reference to such a general proposal at present is, that unless the duties of the Council be strictly defined beforehand there will be the same tendency as heretofore to the spending of much time and money in idle talk without any practical results.

We must defer to next week our notice of the evidence of Dr. Glover.

QUEBRACHO, A PALLIATIVE REMEDY IN DYSPNŒA.

DR. F. PENZOLDT, of Erlangen (*Berl. Klin. Wochenschrift*, No. 19, 1879), narrates some experiments both on man and animals with a new drug, the bark of *Aspidosperma quebracho* (*Apocynaceæ*), sent from Brazil, where it is reputed to have antipyretic properties. The form of preparation used throughout was a watery solution of an alcoholic extract of the bark, ten parts of the latter being percolated with one hundred of alcohol for several days, and the liquid filtered, evaporated, dissolved in water, again evaporated to dryness, and the residue dissolved in twenty parts water.

The main results obtained in frogs were complete motor paralysis of central origin, respiratory paralysis, and diminished frequency of the pulse, independent of irritation of the vagus. In rabbits and dogs, motor paralysis and dyspnœa, increasing with the dose administered, were noticed. The dyspnœa in the rabbit, however, appeared to depend on retardation and deepening of the inspirations; while in the dog the inspirations were accelerated. In the latter, also, there was salivation.

Experiments on animals with artificial fever, produced by injecting putrid fluids, showed no decided reduction of the temperature, and hence quebracho is probably not, as was supposed, an antipyretic. It should be added that it is not an antiseptic, but only temporarily retards putrefaction. The results obtained in actual cases of fever in men were also negative, but Dr. Penzoldt thinks that, considering the close chemical relationship between the alkaloid "aspidodermin" which Baeyer has extracted from quebracho-bark and quinine, the subject requires further working out in this direction.

By the accidental observation of a patient with pleurisy and emphysema, on whom the antifebrile effect of quebracho was being tried, Dr. Penzoldt was led to try the bark in various forms of dyspnœa, depending on emphysema, bronchitis,

phthisis, pleurisy, etc., and obtained remarkably good results. A teaspoonful of the above-mentioned solution was given two or three times a day. The most marked objective phenomenon after its exhibition was a reddening of the previously cyanosed or livid tint of the lips and face. In a case of emphysema where the patient was blessed with a nose the seat of acne hypertrophica, the ordinary violet-blue colour of the organ became fiery red, and excited the surprise of the other patients in the ward. The respirations generally became deeper and less frequent, and the patients expressed themselves subjectively much relieved. The first feeling after taking the drug was one of warmth in the head; many said that they had less desire to cough, and that they found expectoration easier. Occasionally sweating occurred, and in some cases abundant salivation. No bad effects were noticed with the dose mentioned.

Dr. Penzoldt finds that the addition of quebracho solution to blood, in the presence of oxygen, makes it assume a bright red colour, and he is inclined to think that possibly the blood is rendered capable of taking up more oxygen than usual, and carrying it to the tissues. This is, however, merely a provisional hypothesis, and at present there is no satisfactory explanation of the fact that, while moderate doses of the extract alleviate dyspnœa in man, large doses cause dyspnœa in the lower animals.

As yet, quebracho bark is not a commercial product, but the wood is imported in large quantities for tanning purposes. The action of an extract of the wood is similar to that of the bark, but weaker. The alkaloid aspidodermin affects the frog, on the whole, just as the extract of the bark does.

THE EUSTON-SQUARE MYSTERY.

It has not often happened that two courts of justice, sitting at the same time in the same building, have been engaged on two such investigations as those which will be best remembered as the Euston-square and the Richmond murders. Seldom have there been cases requiring more careful investigation or sounder discriminative judgment on the part of those engaged in the inquiry; and seldom have we, we are bound to say, seen cases presenting so many difficult, and we may add, so many unsatisfactory features. To take the affair of Euston-square first, we find in its general conduct nothing to commend except the medical evidence. The following are its leading features:—

On May 9 in this year a boy was sent to clean out a coal-cellar belonging to 4, Euston-square, and, in doing so, found some bones. He seems to have taken fright and run for assistance, and shortly the greater part of a human body and some remains of clothing were disinterred from the rubbish. Closer examination showed the remains to be those of a human female somewhat advanced in years, and having hair of a rather doubtful colour still adhering to the scalp. It was also found that an elderly lady, somewhat noticeable in various ways, had formerly resided in the house, but was reported to have gone away; and the conclusion speedily arrived at was that the body found was that of the old lady in question. The house No. 4, Euston-square lies on the north side, a little way east from the entrance to the Euston-square Station. It is distinguished from its neighbours by having strong iron rods stretching across the area from the pavement to the house-wall, and the area gate was almost always, it is said, kept locked. There could therefore be no case of a homeless wanderer taking refuge here and not being discovered till months afterwards. Neither could any passer-by have thrust a body through between the bars even with assistance from the inside. Practically, therefore, the inquiry was limited to the inmates

of the house itself, and these were a Luxembourger named Bastendorff, his wife (an Englishwoman), and their children. There were, besides, the people engaged by Bastendorff in his occupation of bamboo worker, and certain lodgers. At one time, too, a servant named Hannah Dobbs, a native of Bideford, in North Devon, was in the family. Little difficulty was experienced in at once fixing a date to begin upon, for on Monday, October 15, a message had been sent upstairs to the lady calling herself Miss Uish, then supposed to be occupying the second floor front, asking for the rent due, when Hannah Dobbs came downstairs with a five-pound note, saying that the lady was leaving; afterwards, that she had left. This date was easily fixed, inasmuch as Mr. Bastendorff had been in trouble the day before for shooting too near the high-road. By dint of persevering inquiry the police were able to establish the identity of this Miss Uish with a Miss Hacker, an eccentric old lady, who had formerly resided in Canterbury, but who had for a long time lived in various lodgings under assumed names. This lady had, on October 10, written to Canterbury for some money, directing it to be sent to a post-office. This money was never called for. Thus Miss Hacker must have come to her end between October 10 and October 15. The theory of the prosecution was that she was killed by Hannah Dobbs on Sunday, October 14, when, with the exception of some young children, they were alone in the house together.

The general hearing of the investigation hardly concerns us, but from the medical point of view certain interesting particulars arise. The first was that of identity. The age and sex were settled without much difficulty, and the peculiar characteristics of the hair were not without their value; the height was ascertained, and moreover that there was lateral curvature of the spine, which would give rise to a peculiar gait. There was old periostitis of the tibia, and Miss Hacker had often complained of a bad leg. The evidence derivable from the clothing and ornaments was of a more doubtful character, but all tended in the same way. There does not seem to be the slightest shadow of doubt in anybody's mind that the remains were those of Miss Uish, and that Miss Uish was Miss Hacker. Even, if we mistake not, the name confirms it, for Uish is but a form of spelling Wish, a solicitor whom Miss Hacker had been consulting. The identity thus seems fairly well established.

But the all-important question arises—Was there a murder committed? Of this there is not the slightest medical proof. *Primâ facie* it is not likely that a body found in a coal-cellar with the remains of ordinary day-clothing surrounding it, and a cord deeply embedded in the neck, should have been so disposed of had death happened in a natural way. But neither is it *primâ facie* likely that the inmates of a house, some one of whom must almost certainly have been the guilty one, remained patiently in the house for that discovery which, sooner or later, was certain. There were no marks of injury on the decayed body, the only indication of foul play thence derivable was, as already said, the rope round the neck: no bones were broken; the skull was uninjured; no poison was to be found; and the body was too much decayed to make certain of any injury to the fleshy parts. Thus the cord and the imprint on the neck were all that could be put in evidence, and there was nothing to show that the imprint was made during life. Then there was the mark of blood in the bedroom, which had been partially washed out; but there was not enough, apparently, to account for death by cut throat or any similar injury, and the mode of death by strangulation seldom gives rise to bleeding externally. Notwithstanding all this, it is hardly possible to withhold our belief from the supposition that this was a case of murder.

Now, as regards Hannah Dobbs, when the body was dis-

covered she was in prison, having been sentenced to a term of imprisonment for stealing, some time after leaving Bastendorff's. Inquiries were made of her as to this mysterious lodger who had disappeared, and gradually suspicion was so excited against her that she was charged, and ultimately committed for trial on the charge of wilful murder. Yet the evidence adduced was slight. It was true that opportunity was proved, but nothing else. The only other thing shown was possession of a gold watch, proved to be Miss Hacker's, which she pawned at the nearest pawnbroker's, and a cashbox which had been broken open. What has become of all the rest of the personal property of this wretched old woman? The jury could do only one thing—acquit Hannah Dobbs on the evidence adduced.

Next week we shall have a word to say, from the medico-legal point of view, as to the Richmond murder.

THE WEEK.

TOPICS OF THE DAY.

THE Assistant-Commissioners of Police have recently published their annual report on the working of the Contagious Diseases Acts for the year 1878. In regard to the general effect of the Acts, Captain Harris again states that the continued efforts of the police employed under them are directed to the reclamation of young girls who have begun to lead an immoral life, and to the prevention of others from beginning it. If, as is clearly shown by the report, these results are attained in addition to the great result of diminishing disease, Captain Harris is certainly justified in characterising the working of the Acts as beneficial. The report further shows that the necessary details attaching to the carrying out of the measure have not met with impediment of any kind during the past year; and the persons subject to the Acts have attended examination with great regularity. Not a single case of excess or violation of duty on the part of the police has been brought to notice. The number of names on the register at the end of the year was thirty-six less than at the conclusion of the previous year, showing a total decrease of 3064 since the Acts came into operation. Every effort is made to reclaim the females before the powers of the Acts are put in operation, and, even after the voluntary submission form is signed, the opportunity is still given a person of returning to friends. During the year under notice 938 persons have left the districts under the protection of the Acts, 69 have married, 259 have entered homes, 689 have been restored to friends, and 22 have died. Taken as a whole, this report may be looked upon as very satisfactory.

The Special Drainage Committee of Kingston last week resolved to recommend the Town Council to memorialise the Local Government Board that the borough may be divorced from the Joint Sewerage Board, or that the Board may be dissolved with a view to the district embraced by the present Board being divided for sewerage purposes; and they further resolved to recommend that the Committee be empowered to confer with the Surbiton Improvement Commissioners and the new Maldon Local Board, with a view to deal with their sewage, and to form a joint committee to inquire into and report upon a scheme for this purpose. It is surely high time for some strong pressure to be brought to bear on the authorities concerned in the question of the Thames Valley drainage, unless the unceasing differences of opinion of the various local boards concerned are to render the completion of the scheme a matter of utter impossibility.

It will be remembered that a deputation from the Cheshire salt works proprietors recently waited upon the President of the Local Government Board to protest against their trade being brought under the provisions of the projected Noxious Gases Bill. Upon that occasion Mr. Selater-Booth promised

to consider the subject, and he appears to have come to an adverse decision, seeing that in answer to another deputation of Cheshire landowners, and of representatives of the Cheshire Chamber of Agriculture, which had an interview with him last week to urge that the salt works might not be exempted, he announced that the Government would not think it their duty to exclude salt works from the operation of the contemplated measure.

An inquiry was recently held by Dr. Diplock, Coroner for West Middlesex, at St. Mary's Catholic Orphanage, North Hyde, Heston, relative to the death of three of the inmates, aged twelve, thirteen, and fifteen respectively. The evidence showed that the three deceased boys were suddenly taken ill with pains in the head and vomiting, and died after a few hours' illness. The local medical men were unable to determine the cause of death, and the coroner accordingly communicated with the Home Secretary, who made an order for two experienced pathologists to make a post-mortem examination and analyse the stomachs of the deceased. Dr. Thomas Stevenson, of Guy's Hospital, deposed that he had submitted the contents of the stomach to a chemical and microscopical examination. He found no vegetable or other irritant poison, and there was nothing to account for the cause of death. Mr. Thomas Bond, of Westminster Hospital, said that a post-mortem showed an entirely negative result as to poison having been swallowed by the boys. He was of opinion that the cause of death was blood-poisoning from the sewage. He had examined the earth-closets, and found them in a very bad condition. The jury returned a verdict of "Death from poisoning by sewage gas," and suggested that the evil spoken of by Mr. Bond should be at once remedied. This recommendation was quite a proper one; but there was very scanty evidence that the deaths in question were due to the cause assigned in the verdict.

In the Birmingham County Court, last week, the Apothecaries' Company of London sued Mr. James Harrison, chemist, under the 55th George III., c. 194, sec. 20, for a penalty of £20, for prescribing medicines to one Julia Craddock. The defendant contended that, under the 28th section of the same Act, he had a right to prescribe in such case as that before the Court. A verdict was, however, given for the amount claimed.

During the past week the Holborn Union has opened a new infirmary at Upper Holloway for the additional accommodation of the sick poor, the total cost having been upwards of £80,000; and the parish of St. Marylebone has just commenced the building of a new infirmary for the district, near the Ladbroke-grove-road, which is to cost about £120,000. The President of the Local Government Board attended at Upper Holloway on Saturday last to preside over the opening ceremonies of the first-named building, and in addressing the assembly he remarked that in London people were too apt to forget the common interests of localities and parishes with which people in the country were more familiar; and, therefore, when he found people coming out of their own districts to inaugurate a building to be devoted to the care of the sick poor from one of the most thickly populated places in the very heart of London, he thought it matter for much congratulation. In the course of his remarks he expressed his conviction that the infirmary would prove not only a satisfaction to the guardians, but also to the ratepayers, since they must all feel that with pure air and the best sanitary appliances, the patients would have a better chance of speedy recovery, and of prompt return to their families and their daily labour. The chief point of interest in the arrangement of the new building is the planning of the central sick wards, as it introduces in hospital construction a new method of arranging

the beds and windows. Mr. Snell holds that the plan of ventilation by opposite windows, with the beds opposite to each other and between the windows, exposes the patients injuriously to cold and draughts, unless the beds are at least six feet apart. To avoid this he considers the beds should be ranged "opposite to one another along the internal walls and partitions in each ward, leaving a central gangway between. The windows are in the external walls at either end. The partition walls next the heads of the beds are hollow, and contain large air-flues, which permit the introduction of warm air under, and an exit for foul air over, each bed. This arrangement has been adopted by the same architect in wards erected at two London workhouses for the reception of aged and infirm paupers, and the Guardians of the Holborn Union were so well pleased with those built for them at St. Luke's Workhouse, that they determined to build their infirmary on the same plan. This, however, was objected to by the Local Government Board, who insisted upon the erection of wards [designed upon the pavilion principle. After much discussion a compromise was effected, and the buildings have consequently been erected half on the one plan, and half on the other. This will enable the two systems to be tried side by side.

The *Army and Navy Gazette* says:—"We learn from Natal that there is a most marked contrast between the medical and veterinary arrangements of the expedition, the one department being all confusion, whilst the other does its work quietly and unostentatiously, but with perfect regularity. Surgeon-General Woolfryes and Principal Veterinary Surgeon Gudgin are spoken of as equally able administrative officers, and are supported by equally zealous subordinates; but the system of medical 'unification' is pronounced a most complete failure; in fact, so complete a failure that Lord Chelmsford has found it necessary to write a strong despatch on the subject of it."

The North-Western Association of Medical Officers of Health held a meeting last week at Manchester, and discussed the new dairies and milkshops order. It was urged that the inspector under the order should be a qualified veterinary surgeon, that the general administration of the order should be by the medical officers of health, instead of by the police, and that the putting of the order into effect should be compulsory. The question of taking action to effect a change in the order was adjourned to another meeting.

The Stafford House Committee being desirous of sending to Natal, for the use of the sick and wounded, a quantity of hospital stores of various descriptions, have applied to the Union Steamship Company, the directors of which immediately offered not only to convey the stores (some ten or twelve tons) to Durban free of freight, but to land and store them in the Union Steamship Company's warehouses free of expense.

One of the temperance advocates in the Liverpool Town Council having recently attacked the Health Committee for not dealing with the evil of cellar occupation, the chairman of the Committee has made a statement showing that their officers had not been so idle as was alleged. In the past two years no fewer than 664 cellars had been absolutely filled up, and 1864 cases of illegal occupation have been dealt with.

NEW GERMAN MEDICAL JOURNAL.

A new *Zeitschrift für klinische Medizin*, edited by Professors Frerichs and Leyden, is announced for publication by Hirschwald of Berlin. It will open its columns to the whole subject of pathology and therapeutics, to experimental pathology and clinical diagnosis, and to medical chemistry and pharmacology. Three numbers of variable size will constitute a volume. Under such editorship the venture ought to be a successful one.

CHARING-CROSS HOSPITAL: DISTRIBUTION OF PRIZES.

THE following prizes were distributed to the students of Charing-cross Hospital Medical School on the 11th ult., the Right Hon. Lord Tenterden, K.C.B., in the chair. *Scholarships*: Llewellyn—Jas. Turton, certificate and £25; Golding—C. W. G. Burrows, certificate and £15; Governors' Clinical—Jas. Turton, gold medal; Pereira Prize—J. C. Culling, bronze medal and £5. *Medals and Certificates*: Pathology—M. Pittard, medal; J. F. Williams, certificate; W. J. Clarke, certificate. Midwifery—Jas. Turton, medal. Forensic Medicine—J. F. Williams, medal; M. Pittard, certificate; Jno. Smith, certificate; Jno. Cotman, certificate. Materia Medica—Chas. Rout, medal; C. W. G. Burrows, certificate. Practical Chemistry—T. E. Rogers, medal; C. R. C. Lyster, certificate; C. W. G. Burrows, certificate; H. R. Morse, certificate. Botany—H. R. Morse, medal; M. Kosulitz, certificate. Senior Medicine—J. C. Culling, medal; Jas. Turton, certificate; C. G. Bunn, certificate. Junior Medicine—Charles Rout, medal; A. Honman, certificate. Senior Surgery—James Turton, medal; R. W. Branthwaite, certificate. Junior Surgery—C. W. G. Burrows, medal; J. S. Reynolds, certificate. Senior Anatomy—E. E. Newnham, medal; C. W. G. Burrows, certificate; H. Harris, certificate; J. F. Williams, certificate. Junior Anatomy—W. J. Haddock, medal; S. Wyborn, certificate; H. R. Hancock, certificate. Senior Physiology—C. W. G. Burrows, medal; John Smith, certificate; J. F. Williams, certificate; T. H. Pounds, certificate. Junior Physiology—John T. Tibble, medal; George Locke, certificate. Chemistry—W. B. C. Treasure, medal; John T. Tibbles, certificate; George Locke, certificate. Comparative Anatomy—Edwin Wooton, certificate.

THE HABITUAL DRUNKARDS BILL.

THE pressure upon our columns has prevented our noticing hitherto the fact that the Habitual Drunkards Bill has passed the Houses of Parliament, and received, on July 3, the Royal Assent. And the same reason compels us to be content at present with simply naming two or three of the principal amendments that have been made in it, namely:—That the Act shall be in force only from January 1, 1880, until the expiration of ten years from the passing thereof and to the end of the then next session of Parliament; that the definition of an habitual drunkard has been amended so that now an habitual drunkard means "a person who, not being amenable to any jurisdiction in lunacy, is, notwithstanding, by reason of habitual intemperate drinking of intoxicating liquors, at times dangerous to himself or herself or to others, or incapable of managing himself or herself, and his or her affairs"; that no licence to keep a retreat shall be granted to any person who is licensed to keep a house for the reception of lunatics; and that the formalities to be gone through before an habitual drunkard can be admitted to a retreat must be before "justices" of the peace, instead of before "a justice." Many other amendments have been made with the object of guarding against any abuse of the liberty of the subject. We regret, however, to observe that the Bill remains unaltered in some of the particulars as to which we have pointed out that amendment was urgently needed. It has been provided that "a duly qualified medical man shall be employed as medical attendant" of a retreat, unless the name of the licensee is on the Medical Register; but the clause providing for the punishment of offences by habitual drunkards while detained in retreats unfortunately is left in the Bill, and still in the form that we have shown to be so objectionable. We shall take an early opportunity of noticing the Act more fully, and commenting on the effect of the various amendments made in it.

THE PROPOSED VICTORIA UNIVERSITY.

THE Council of the Liverpool Royal Infirmary School of Medicine have sent to her Majesty's Privy Council a memorial on the subject of the proposed establishment of the Victoria University, with "power to grant degrees to its own students in the faculties of Arts, Science, Medicine, and Law." The document states:—"That while your memorialists are strongly in favour of the increase and extension of facilities for higher education throughout the North of England, they consider it highly undesirable that any new university should be founded with the power to confer degrees or licences to practise medicine. That there are at the present time in the kingdom no fewer than ten universities granting academical degrees in medicine, and nine corporations granting other licences to practise in that faculty—a number which your memorialists believe is already too large in the interests both of the public and of the medical profession. This opinion is well known to be strongly entertained by the medical profession in general. Your memorialists are further of opinion, that even if a single and uniform qualification for the practice of medicine in the United Kingdom were established by Parliament, it would still be prejudicial to the interests of medical education to increase the number of academical distinctions in the faculty of medicine." The memorialists conclude by praying "That if a charter be granted to the proposed Victoria University, such University shall not have the power of granting degrees in medicine." We are quite ready to admit that there is a general consensus of opinion that the number of bodies in the kingdom granting licences to practise medicine is already too large; and the creation of an additional licensing body would certainly be very objectionable. But whether or not it is desirable to enlarge the facilities for English students of medicine or English practitioners to obtain the degree of M.D., is another matter. The M.D. of the University of London can be obtained by but few, on account not of the very high standard adopted, but simply of the restrictions as to curriculum; and the old universities require residence. We shall have more to say on the whole subject on some future occasion; but the terms upon which the degrees of the new university are to be granted must be made known before any opinion on the subject can be given.

DR. THORNE THORNE'S REPORT ON THE INSANITARY CONDITION OF PENISTONE.

WE briefly alluded, a short time ago, to a report made to the Local Government Board by Dr. Thorne Thorne on the sanitary condition of the Urban Sanitary District of Penistone, it having been considered necessary to send an inspector to investigate the causes of a recent prevalence of infectious diseases in the district. A fuller consideration of this report shows that the district in question, which is situated in the West Riding of Yorkshire, lies on the south bank of the river Don, about eight miles to the south-west of Barnsley. The population is estimated at about 2000; and the people are, as a rule, well housed in substantial stone or brick dwellings, there being neither overcrowding nor any special destitution in the neighbourhood. Considering that Penistone is little more than a large village, and that the increase of population which takes place there is largely due to the influx of young adults in the prime of life, the mortality return for the five years 1874-78, which gives a death-rate of 21.5 per 1000, is obviously much higher than that which should prevail; indeed, the deaths for the first quarter of the present year, including ten fatal cases of scarlet fever, and five of enteric fever, reached twenty-one in all, or some two-thirds of the mortality during either of the two preceding twelve months. Since January last forty-two cases of

enteric fever had come under treatment, with five deaths; and up to the second week in April between fifty and sixty cases of scarlet fever had occurred, with fatal results in ten cases. Dr. Thorne had little difficulty in arriving at the causes for these outbreaks of infectious diseases. The water-supply for Penistone is admittedly bad both in point of quantity and quality. Of the three principal public supplies, one, a spring at Bridge-end, appears to be a wholesome water, and no cases of enteric fever were reported in that part of Penistone where it was used. The second is a dripping well, the supply from which is known to pass through land the surface of which is ploughed and manured, and it is conveyed to the roadside in a glazed pipe-drain which passes within about ten feet of a midden-privy, containing sloppy contents. The third source is a deeper well, fitted with a pump, in close proximity to some square stone drains, and to an open ditch which receives sewage. There are some other means of obtaining water, but the supply is scanty, and many of the inhabitants are obliged to have recourse to a sewage-tainted brook, known as Cubley Brook, for so-called "cleaning purposes," if not at times for drinking and cooking purposes. Further, there is nothing which can be called a system of sewerage and drainage in Penistone. Certain old square stone drains, originally constructed to carry rain-water off the highways, have been converted into sewers, and in some parts of the town glazed pipe-drains have been put in. Up to within the past two months it has been a general custom to have a direct communication between the interior of the drains and the interior of the houses. There are a few water-closets communicating with the faulty sewers previously referred to, but the midden-privy is the usual means for the disposal of excrement and refuse. By far the majority of these midden-privies are so constructed that they must necessarily cause grave nuisance and injury to health, there being no proper mingling of the ashes with the excreta. In fact, the town privies only need to be infected by the introduction of a case of enteric fever to give the readiest opportunity for the disease to spread, both directly from the privies, and indirectly by the agency of water derived from the soil in which the privies are sunk. There are no means of isolation for persons suffering from infectious diseases, and no public disinfecting chamber. The Medical Officer of Health has a salary of £13 per annum, but it is only due to this gentleman to state, on the authority of Dr. Thorne, that he has repeatedly called the attention of the authorities to these sanitary defects, without securing any improvement. Dr. Thorne appends to his report the necessary recommendations for initiating a more wholesome state of things in Penistone, and it is to be hoped that the influence of the Local Government Board will succeed in bringing about those necessary sanitary improvements which the local Medical Officer of Health was evidently powerless to obtain for his district.

THE MURCHISON MEMORIAL.

THE following resolution was proposed and carried unanimously at a general meeting of the subscribers to the St. Thomas's Hospital Murchison Memorial Fund, held on July 5:—"That with the view of uniting all the efforts being made to raise a memorial to the late Mr. Murchison, and to prevent any possibility of rivalry between the existing schemes, this meeting is of opinion that the St. Thomas's Hospital Fund should be amalgamated with that of the London and Edinburgh Committee on the following conditions:—1. That the Murchison Memorial Scholarship be thrown open to students from all the London medical schools. 2. That a sum of £300 be guaranteed to the St. Thomas's Committee for the purpose of raising a memorial to Dr. Murchison in St. Thomas's Hospital."

THE PROPOSED DUBLIN CONVALESCENT HOME.

A MEETING of friends of the movement for the establishment of a convalescent home for Dublin was held on Monday, the 23rd ult., "for the purpose of taking into consideration the present position and prospects of the undertaking, and instructing the committee as to their future action, the funds subscribed up to the present not being sufficient for the establishment of such an institution." The attendance was not large. The Right Hon. the Lord Mayor of Dublin presided. After considerable discussion the following resolution, proposed by Dr. J. W. Moore, and seconded by Mr. Charles Kennedy, was unanimously adopted:—"That, inasmuch as the efforts of the executive committee to establish a convalescent home for patients recovering from infectious diseases have hitherto proved abortive owing to the comparatively small sum which has been contributed by the public in aid of the movement, this meeting is of opinion that it is desirable to call upon the Public Health Committee of the Corporation, acting as the urban sanitary authority, and in co-operation with the urban sanitary authorities of the townships to establish a convalescent home such as is contemplated in accordance with the powers given those sanitary authorities under Section 155 of the Public Health (Ireland) Act, 1878; further, that a sum of £1000 be contributed, out of the funds at present in hand, in aid of the establishment of a convalescent home under the said provisions of the Public Health Act, should the sanitary authorities in question proceed to found such an institution, and subject to the approval of the subscribers." The hon. secretaries were authorised to put themselves in communication with the Public Health Committee; and it was directed that the funds in hand should be meanwhile invested.

FORTHCOMING MEETINGS OF MEDICAL SOCIETIES ABROAD.

THE sixth "International Periodic Congress of the Medical Sciences" will take place at Amsterdam from September 7 to 13, 1879; Professor Donders, of Utrecht, president. The fee for membership is ten gulden. Papers are already announced by eminent writers—Chauveau (of Lyons), on Vaccination; Virchow, on the Education of Doctors; Billroth, on Theory and Practice in Medicine and Surgery; Heidenhain, on Secretion, etc.,—so that there is no doubt the Congress will be an interesting one. The German Society of Public Health (*Verein für öffentliche Gesundheitspflege*) will also meet in September next at Stuttgart, from the 15th to the 17th. The subjects for discussion are:—1. Methods of disinfection; 2. Measures for preventing the introduction of contagious diseases from foreign countries; 3. The hygienic requirements of boarding and lodging houses; 4. The necessity of erecting public mortuaries; 5. The management of public bathing establishments. We hope some of our British health officers will attend this meeting, and assist the discussions, as they are well qualified to do, by their remarks.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

THE by-laws adopted by the King and Queen's College of Physicians to regulate the new grade of members, in accordance with the provisions of the Supplemental Charter of December, 1878, have been submitted, for approval, to the Lord-Lieutenant of Ireland. The members of the College alone are to be eligible to the fellowship, and are to enjoy certain privileges, but will not be members of the body corporate. All licentiates of the College admitted before December 12, 1878, are entitled to be admitted members without payment or examination on complying with certain conditions. Every candidate for the membership must be twenty-five years of age; must be a licentiate of three years' standing of the College or of the Royal College of Physicians of London or Edinburgh; or a licentiate of one year's

standing and a graduate of arts of a university in the United Kingdom; or a licentiate of one year's standing, and a registered practitioner of seven years' standing; and, of course, must produce satisfactory testimonials of good character, etc. Every candidate for examination will have to produce proofs of a certain degree of extended professional education, and will be required to translate into English a passage from a Latin author, or to show that he possesses a knowledge of Greek, or French, or German; and he will have to pass an examination in "pathology, medical anatomy, histology, medical chemistry, principles of public health (including climatology and meteorology), psychology, forensic medicine, and clinical medicine."

QUEEN'S UNIVERSITY IN IRELAND.

A PUBLIC meeting of the University was held in Dublin Castle, on Monday, June 23, at which the Vice-Chancellor, Sir Dominic J. Corrigan, Bart., M.D., conferred the following degrees and diplomas:—*The Degree of Doctor in Medicine* on William James Cowden, of Queen's College, Belfast; Joseph Crowley, of Queen's College, Cork; Thomas Dorman, B.A., of Queen's College, Cork; Thomas P. Madden, of Queen's College, Galway; Charles Magill, of Queen's College, Belfast; Robert Mitchell, of Queen's College, Galway; Alex. Sharpe, of Queen's College, Belfast; Jacob T. Shipsey, of Queen's College, Cork; John Simpson, of Queen's College, Belfast; William Smyth, of Queen's College, Belfast; Horace R. Townsend, B.A., of Queen's College, Cork; James Wilson, of Queen's Colleges, Belfast and Galway; William Mussen Young, of Queen's College, Belfast. *The Degree of Master in Surgery* on A. Osmond Geoghegan, M.D., of Queen's College, Galway; Gilbert Kirker, M.D., of Queen's College, Belfast; John M'Kinlay, M.D., of Queen's College, Galway; John F. Tuohy, M.D., of Queen's College, Cork; Joseph Crowley, of Queen's College, Cork; Thomas Dorman, B.A., of Queen's College, Cork; Thomas P. Madden, of Queen's College, Galway; Chas. Macgill, of Queen's College, Belfast; Robert Mitchell, of Queen's College, Galway; Alexander Sharpe, of Queen's College, Belfast; Jacob T. Shipsey, of Queen's College, Cork. *The Diploma in Midwifery* on Gilbert Kirker, M.D., of Queen's College, Belfast; Daniel Riordan, M.D., of Queen's College, Galway; John Wilson, M.D., of Queen's Colleges, Belfast and Cork; Joseph Crowley, of Queen's College, Cork; John Simpson, of Queen's College, Belfast; William Smyth, of Queen's College, Belfast; Horace R. Townsend, B.A., of Queen's College, Cork.

UNWHOLESOME MEAT AND SAUSAGES.

AFTER a lengthened hearing, the Burslem stipendiary magistrate has fined a butcher, named Oakden, £100, for having in his slaughter-house a large quantity of meat which was certified by the medical officer to be part of a beast that had suffered from a loathsome disease. The sanitary inspector, accompanied by the inspector of police and others, got into the slaughter-house, after much difficulty, and found the unwholesome meat. From the surrounding circumstances it seemed that the stuff was going to be cut up into sausage-meat, and it was thoroughly dressed. It was alleged that the meat was for pigs, but this was proved to be untrue. The penalty was £10 for each of the ten pieces found. The practice of converting diseased meat into sausages is, unfortunately, too common, and must be vigorously dealt with when discovered and proved. Only very lately about forty persons who had partaken of sausages purchased at a stall in the public street at Thaxted, Essex, suffered from symptoms of poisoning, and some of them were even reported to be in a critical condition. A parcel of these sausages was sent to an eminent analyst for his examination and report.

SUNLESS ENGLAND.

THE following meteorological records, furnished from the Royal Observatory, Greenwich, may be found interesting as facts, though, we think, they will not give much comfort or hope. In the first half of the year, ended June 28, there were only 471 hours of sunshine registered; in the corresponding period of last year the hours of sunshine were 643. The deficiency this year occurred in the second quarter, as the 133 hours of sunshine recorded in the first quarter were only about seven hours less than occurred in the first quarter of 1878. But in 1878 the second quarter gave a total of 503 hours of sunshine against only 338 in the same period of the present year. The Registrar-General's returns, from which these figures are obtained, are not made for calendar months, but for weeks, and the fortnight ending on June 28 last is shown to have had only 50 hours of sunshine to compare with 116 hours in the corresponding period of 1878. June, 1878, was spoken of at the time as a sunless month, but it had a fraction over 181 hours of sunshine in the four weeks, and the corresponding period of this year had not quite 119 hours of sunshine. The rainfall at Greenwich is given as 17·57 inches in the twenty-six weeks ending June 28 of this year, and in the four weeks ending at the same date there fell four and a half inches of rain. Last year the Registrar-General reported that the 4·6 inches of rain which then fell in June were more than double the June average for the last sixty-three years. As a natural consequence, it will not be surprising to hear that in every week of the half-year of 1879, except two in February and four in June, the number of deaths in London has been above the last ten years' average, after allowing for increase of population.

VITAL STATISTICS OF IRELAND FOR THE YEAR 1878.

A GENERAL abstract of the numbers of marriages, births, and deaths registered in Ireland during the year 1878 has, as usual, been prepared to be laid before Parliament. From this it appears that during the year 25,363 marriages, 134,370 births, and 99,839 deaths were registered; in the same period 41,124 persons emigrated, so that a decrease of 6593 is shown to have taken place in the population, which in the middle of the year was estimated at 5,351,060. The births afforded a ratio of 1 in every 39·8, or 25·1 per 1000 of the population, against an average rate of 26·9 per 1000 for the previous ten years. On the other hand, the number of deaths was equal to a ratio of 1 in every 53·6, or 18·7 per 1000 of the population, being 1·5 per 1000 persons over the average rate for the ten years 1868-77. Of the total number of deaths registered, 13,107, or 13·1 per cent., were of children under one year old, and 40,551, or 40·6 per cent., were of persons aged sixty years and upwards. During the year 11,050 deaths were returned by the Registrars as having occurred from the eight principal zymotic diseases, being 11·1 per cent. of the total deaths, and equal to 2·07 in every 1000 persons living. The average annual number of deaths from these diseases during the previous ten years was 11,371, or 2·12 in every 1000 of the estimated average population, the lowest number during that period being 9162 in the year 1877. The number of inquests held during the year was 2704, being at the rate of 1 inquest to every 37 deaths registered. The mean temperature for the year was 49·30; the highest registered was 79·4° on June 26 and July 23, and the lowest was 9·3° on December 24. Rain or snow fell on 217 days during the year, against an average of 197 days for the preceding ten years.

EAST LONDON HOSPITAL FOR CHILDREN.

MR. CHARRINGTON, chairman of the Board of Management of this Hospital, yesterday presided at the distribution prizes in connexion with the training of nurses which

going on at this institution. The first series of lectures, which was given by Mr. Hayward, Resident Medical Officer, during the past winter, consisted of elementary physiology and chemistry, each lecture being illustrated by experiments and demonstration. Thus, among the other subjects, food and its digestion were fully explained, and also the chemistry of air, including ventilation and water. The lectures seemed to be highly appreciated, and at the end of the session an examination was held. Seeing how important it is that those who are in charge of the sick should understand something of the *rationale* of disease in order the more intelligently to carry out the instructions of the medical man, we commend the authorities of this Hospital for the good work they have instituted.

ALEXANDER MEMORIAL FUND.

At a meeting of the Committee of this Fund, held on July 9, at the Army Medical Department, 6, Whitehall-yard, it was unanimously resolved that the prize of £50 and a gold medal of the value of £10 be awarded to Surgeon John Martin, of the Army Medical Department, who joined the Army, March 31, 1874, for the best essay "On the Influence of Drinking-Water in Originating or Propagating Enteric Fever, Diarrhoea, Dysentery, and Cholera; to be illustrated, as far as possible, by instances which have come under the personal observation of the author." It was decided by the Committee, at the same meeting, that a prize of like value, the competition for which is limited to executive medical officers of the Army on full-pay, be offered to the writer of the best essay "On the Prevalence of Enteric Fever in the Army: its Etiology, Pathology, and Treatment; to be illustrated by the personal observation of the author." The essays to be despatched so as to reach the President of the Committee on or before December 31, 1881.

ROYAL COLLEGE OF SURGEONS.

At a quarterly meeting of the Council, on Thursday, the 10th inst., Mr. Luther Holden, Senior Surgeon to St. Bartholomew's Hospital, was elected President of the College on the retirement of Mr. John Simon, C.B., F.R.S.; and Messrs. John E. Erichsen, F.R.S., Surgeon to the University College Hospital, and Erasmus Wilson, F.R.S., were elected Vice-Presidents. At this meeting of the Council the recently elected members of it, Messrs. John Wood, F.R.S., Henry Power, and Jonathan Hutchinson, having made the necessary declarations, took their seats.

THE MAYORALTY OF DUBLIN FOR 1880.

MR. EDWARD DWYER GRAY, M.P. for the County Tipperary, has been elected Lord Mayor of Dublin for the year 1880. Mr. Gray is editor of the *Freeman's Journal*, and is eldest son of the late Sir John Gray, Knt., M.D., whose name will be ever associated with the celebrated Vartry water supply of Dublin. A white marble statue of Sir John Gray was unveiled in Sackville-street, Dublin, a fortnight ago.

THE BROMPTON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.

THE foundation-stone of the new building for the extension of this Hospital will be laid by his Royal Highness the Prince of Wales, who will be accompanied by her Royal Highness the Princess, on the afternoon of Thursday next, the 17th inst., at half-past three o'clock.

At the quarterly meeting of the Directors of the Naval Medical Supplemental Fund, held on the 8th inst., Dr. H. J. Domville, C.B., Inspector-General, in the chair, the sum of £70 was distributed among the various claimants.

THE SELECT COMMITTEE ON THE MEDICAL ACT AMENDMENT BILL.

THE Select Committee of the House of Commons on the Medical Act (1858) Amendment Bill (No. 3), continued its investigations on Friday, July 4, at twelve o'clock, the Right Hon. W. E. Forster in the chair.

Dr. WATERS, of Chester, in examination by the Chairman, said: I have been a graduate of the University of Edinburgh since 1847, and a Fellow of the College of Physicians of Edinburgh since 1848. In 1866 I was President of the British Medical Association. I am now Consulting Physician to the Chester Infirmary. The British Medical Association was formed in the year 1832, under the name of the Provincial Medical and Surgical Association. When its sphere of operations became enlarged, that name was changed to the British Medical Association. The first meeting was held in Birmingham, the next in Bristol. The first meeting outside England was held in Edinburgh in 1858, and a meeting was held in Dublin in 1867. This year we meet at Cork. Each member of the Association must be proposed by three nominators, and he is then balloted for, a majority of three-fourths of the members present being necessary to secure an election. Membership is confined to registered medical practitioners. The number of members at present is about 8000, and is steadily increasing. When I was President in 1866, the number was between 3000 and 4000, and since then there has been a steady increase. The Association has about thirty branches, which hold annual meetings, and many of them also intermediate meetings. The Council of the Association consists of the President, the President-elect, the Treasurer, the President of the Council, all the gentlemen who have read annual addresses or presided over sections at the meetings of the current or the preceding year, and a secretary from each branch. These are all *ex officio* members. There are also on the Council representatives in the proportion of one to every twenty members of a branch. The President is elected by the vote of the Association at the annual meeting. He is first of all President-elect, being proposed at the meeting preceding that at which he will fill the chair. The Council meets, as a rule, once a year. The business is very much managed by the Committee of Council, which is formed of the President, the permanent Vice-President, the President of the Council, the Treasurer, the secretary of each branch, and twenty members elected by the general body of the Council. They are obliged to hold four meetings in the year. The Association was formed for the promotion of kindly intercourse between the members of a scattered profession, and also for the promotion of science, and the discussion of all questions connected with the public good in relation to the profession. At the second annual meeting of the Association an address on Medical Reform was read by Dr. Barlow, and was afterwards widely distributed amongst the members of the profession. A general interest was excited in the question, and a Committee of the House of Commons sat in 1834, and received voluminous evidence in relation to the three divisions of the kingdom. Only the evidence with regard to England was published, which filled a volume of about 800 pages; but the Committee did not make a report. As early as 1839 the Association arrived at the conclusion that it was indispensable that the numerous examining bodies should be brought together, so that there might be approximate uniformity of examination and tests. The objects of the Association were to secure good preliminary examination in general education, registration, uniformity of examination, reciprocity of practice, and the formation of a General Medical Council on which all interests, including those of the profession, could be represented. Of these objects, registration and reciprocity of practice have been gained. Reciprocity was accepted by the licensing corporations, but at the time of the passing of the Bill of 1858 they declined to submit to a uniform scheme of education, examination, and fees. Though a Medical Council was formed, it was not formed in accordance with the views of the Association. In 1840 a Bill was introduced by Mr. Warburton and Mr. Wakley, embracing provision for the election of representatives from the profession in the proposed General Medical Council. In our first request for a General Medical Council was embodied the principle of direct representation. There are in the kingdom more

surgeons than physicians, but the Association comprises all classes. It is not specially surgical. It has more frequently happened that the President of the Association has been a physician, but on numerous occasions he has been a surgeon. The *élite* of the profession now belong to the Association, and all the lecturers and teachers in the provincial schools. A great proportion of the members are graduates of the Scotch universities. Several of the leading metropolitan practitioners attend the meetings of the Association. Mr. Callender and Dr. Sieveking are regular attendants at the meeting of the Committee of Council. I do not see how the statement that the Association represents the profession can fairly be challenged. I cannot say how many of the members are English. The Association includes between one-third and two-thirds of all the registered practitioners. I am not aware that there is any society formed with the same objects except the Irish Medical Association, which was founded before the operations of the British Medical Association had extended to Ireland. The British Medical Association is mainly an English body. The Irish Medical Association works entirely in harmony with our own. I am not aware that there has ever been any schism in our body.

The CHAIRMAN: What do you consider is the present feeling of the Association with regard to conjoint boards?

Dr. WATERS: The Bill of the hon. member for Exeter was put forward in connexion with the Association; but in Ireland and in Scotland petitions in favour of that Bill have not been so numerous, in consequence of feeling not being so strong. The Bill was introduced owing to the unsatisfactory condition of the Government Bill. The support in England is quite general. So long as the English medical authorities were working towards the establishment of a conjoint board we suspended Parliamentary action in order that the field might be left clear for them. We felt that if it were established in England the strength of the Association to force it on Scotland and Ireland would be greatly increased. We have believed that a number of men of deficient attainments, both professionally and educationally, are getting into the profession through the facilities afforded by rival examining boards. I am aware that the chief opposition to conjoint boards comes from Scotland, and I think also from Ireland. The officers of the Association see no reason why the universities should not co-operate with the corporations of Scotland, inasmuch as the universities are, equally with the corporations, examining and licensing boards. A fair proportion of our members are graduates of the universities. We have advocated a conjoint scheme since 1870, and we flatter ourselves that the compulsory nature of the Government Bill in its improved condition is due to the action of the Association to some extent. Last year when the Government Bill was introduced we took the opinion of our constituents with regard to the question whether the conjoint scheme should be compulsory or not. The result of the answers was that 4910 were in favour of compulsion, and 264 against it. We have frequently tested the opinion of the profession on the question of direct representation. The result last year was 5075 in favour, and only 121 against it.

The CHAIRMAN: What is the chief reason why you desire direct representation?

Dr. WATERS: First of all we think, as we did when the Bill of 1858 was passed, and when we were obliged to accept only six Government nominees, that the General Medical Council was constituted with an undue preponderance of the Corporation representatives. The Corporation representatives necessarily govern the Council. I do not see how the Corporation representatives can be regarded as the representatives of the profession. Mr. Simon designates them as delegates. The object of the corporation representative is to take care of the interests committed to his special charge. These corporations were all formed in the first instance with the view of protecting the interests of the profession; but in process of time they have founded particular advantages of their own—and, I am sorry to say, advantages of a pecuniary kind; and under a conjoint scheme these licensing corporations will have their funds materially impaired. When the conjoint scheme was introduced in the Medical Council in 1868, Dr. Alexander Wood said that it was really too much to expect them to perform the "happy despatch." They felt that it would be destroying their own corporations; and I believe that the English College of Surgeons feels that, if the conjoint scheme be not extended to Ireland and

Scotland, it will be very detrimental to its own interests. I think that if the governing body of the English College of Surgeons were really elected by all its own licentiates the representative would still be the representative of the corporation, and not of the profession.

The CHAIRMAN: Do you think that the Medical Council has failed in doing what it ought to have done, and needs direct representation? and, if so, in what way?

Dr. WATERS: I believe that, owing to people living in glass houses, they do not like to throw stones. It is a very unpleasant thing to mar the harmony of their meetings by the introduction of subjects of a disagreeable character; and the result has been an amount of mutual forbearance that has tended to keep back the education of the profession. Although the members of the Medical Council are now strongly in favour of conjoint boards, I think it has been forced on them by outside pressure and the hints of Government. In 1868, when Dr. Parkes, who is dead, called attention to the lamentable ignorance in general and professional education which characterised the candidates who presented themselves for examination before the Army Medical Board, the statement fell like a bombshell before the public, and it became evident that the members of the profession were not adequately educated.

The CHAIRMAN: That view was strongly put before me by the members of the Council themselves. How do you think that they could have taken stronger action than they did?

Dr. WATERS: I think that if we go over the reports of visitors to examinations, we find such want of decent orthography in the answers, and such an absence of knowledge of the principles of mechanics—a knowledge of mechanics being considered part of the education of a medical student—that those things would not have been passed over in the way they have been had there been representatives of the profession generally in the Council. In one of the reports of the visitors to Queen's University there is a question, "Why will the water ascend in a cylinder?" The answer is, "Because the piston attracts." When the answers of the candidates disclosed such glaring ignorance, the Medical Council ought to have made it known to the public, and made representations on the subject to the Privy Council. I do not dispute that there has been action taken, but it has been defective. Notwithstanding that the reports disclosed this amount of ignorance, the Council has now for some years never repeated these visitations. At page 182 of the Medical Council's Report of Visitors of Examinations of 1874, for the examination in 1873, "height" is spelt "hight"; "sudden" is spelt "suddent"; "region" is spelt "regon." I believe that the candidate, making the answers I have mentioned, passed. Every medical student is required to pass a preliminary examination. Now, I say that that man ought never to have been admitted as a medical student. There is this vice with regard to preliminary examinations, that the licensing bodies themselves are able to examine for the preliminary examinations. The fault would be with the Medical Council, for not insisting on medical education being improved. Besides the cases I have mentioned, I have before my mind individuals who, if they write a letter, expose an amount of defective education which would be very unbecoming indeed, and could not exist on the part of a national schoolmaster. It happened to me not long ago to meet a man who was a graduate of a university; and, in conversation with him, his English struck me as being very defective. I would rather not give the university. My first objection to the Medical Council is, that it does not fulfil its duties with regard to medical education with sufficient energy; and I think that such cases as I have mentioned are proofs that it is not doing its duty as regards general education.

The CHAIRMAN: I suppose that the members of Council of your Association would be able to pass an examination in writing and spelling?

Dr. WATERS: I think that we should not pass a discreditable one.

The CHAIRMAN: Then you would pass it better than some men that I know in most walks of life. (Laughter.) I gather from your answer that the Association does not wish for change in the Medical Council because the Council disregards the necessity for medical education, but because it is not sufficiently attended to. Do you think that it fails with regard to registration at all?

Dr. WATERS: I think it does. There were a great many errors in the Medical Register of last year. I do not look for absolute perfection.

The CHAIRMAN: Do you wish the Council to undertake any fresh duties?

Dr. WATERS: I think that there should be somebody to advise the Government, or a body to which the State could refer with regard to questions of public health; and that it should be a body representing collectively professional opinion. You have then the force of the profession; but the Council must be modified before it can be said to represent the force of the profession. On this point my opinions must not be taken as those of the Association. The Association has not declared that it ought to be the function of the Council to take up those questions.

The CHAIRMAN: It is stated in evidence that there is another object in direct representation, and that is, that there should be an organised body that should represent the interests of the profession. Do you think that that ought to be the case?

Dr. WATERS: I do not know what are the interests of the profession as separate from the interests of the public. In 1869 the Medical Reform Committee of the British Medical Association issued an address to the members of the Legislature and the general public, and in referring to the defects of the Council it stated—"These defects are specially to be noticed: first, the defective previous education of the medical student; second, the character of the course of study and examinations, which are not sufficiently practical." Since this address was issued the examinations have been made to some extent more practical through clinical examinations previous to obtaining the diploma; but even at the present day they are defective. And then—"third, the number of examinations and examining boards." They say that the preliminary examination is, in many cases, an imperfect test of the candidate's general knowledge.

The CHAIRMAN: Do I understand you to disavow, on the part of the Medical Association, any desire that the Council should take up what we may call the special championship of the medical profession?

Dr. WATERS: I am not commissioned in any way to say anything of the kind. I have never done anything of the kind, and I have been chairman of the Medical Reform Committee since 1867. With regard to the mode of general election, the voting papers could be issued by the Registrar by post, and the posting of those papers should be considered as delivery; and the voting paper being issued to every member in the profession in each division of the kingdom, then the answers would have to be signed and witnessed, and inserted in the Register. That is simply the process of voting used by the Medical Benevolent College. The votes will then be collected by the Registrar, and the selected candidates declared. Each candidate must have at least twenty-five nominators (of course, there may be more than twenty-five), and we believe that the names of the nominators will be, to a great extent, a guide to the profession generally as to the respective eligibility of the candidates.

The CHAIRMAN: For instance, if the twenty-five nominators comprised the leading members of the Executive Committee, they would carry a large number of votes of your Association.

Dr. WATERS: I have no doubt that if the Committee of the Association selected any person unanimously, he would be a representative candidate; but I do not think that the Council of the British Medical Association desires to put forward its own officials as candidates, because it has most distinctly disclaimed acting in this matter as for the Association alone. It has been acting for the profession, and it has invariably aimed at ascertaining not only the views of the Association, but also of the profession. I have no doubt that if we had the names of distinguished members of the General Medical Council as nominating candidates, such nomination would have enormous influence with the profession. If the representative principle is practicable in the view of the good of the public, then such a constituency as the medical profession may be fairly assumed to be able to form an estimate of the respective merits of the candidates.

The CHAIRMAN: Have you a system of direct representation for electing your own Council?

Dr. WATERS: First of all, we have our Council elected—one member for every twenty members of a branch. That is one part. Then we have the secretary of each branch,

who is also a member of the Council. The secretary may be considered the representative member.

The CHAIRMAN: Then you do not apply to your own election the plan of direct representation?

Dr. WATERS: To some extent. We only wish to apply it to the Medical Council.

The CHAIRMAN: You do not apply it at all. You have none of your members elected by immediate suffrage. You do not send round voting papers for your own Council.

Dr. WATERS: Voting papers are used, and it is a vote by ballot in the election of the members of the Council by the branches. The branches each send a member to the Council of the Association for every twenty members.

The CHAIRMAN: Do you imagine that the candidates would send out addresses?

Dr. WATERS: No. The member of the General Medical Council would simply lay before the Council the view of the profession by which he was sent there. I do not think there would be a contest. There is no difficulty when the representative of a university is elected to the Medical Council. I believe that there would be as little difficulty in the election of the direct representative as there is in regard to either of the universities. The only cost would be the expense of postage, the printing of the circulars and list of candidates, and the voting papers. An election would only occur once in five years. Although the expense might be considerable if borne by one person, it would be nothing as regards the profession. I do not think that there is any foundation for the opinion that professional agitators would have an advantage in such an election. I do not think that they would have the most remote chance of election. Eminent men would still be elected, but there would be the advantage that they would carry with them power and force in being the representatives of the profession.

The CHAIRMAN: By the Dentists Act of last year there are 5000 dentists registered. Would you give them a representation in the Council?

Dr. WATERS: The Association has not pronounced upon this, but, in my opinion, those who are simply mechanical dentists are not members of the medical profession. Such of them as are surgeons or physicians truly will have representation. There are bone-setters who are popular men, but we should not give them representation. I should like to say, in connexion with the Bill put forward by Mr. Cowper Temple, that he thought that great advantage might arise if a certain number of medical gentlemen, the representatives of the general practitioners throughout the country, were added to the Council, and he gave his reasons—"Such an arrangement would make the Council more completely representative of the profession than at the present; and it would also have the good effect of bringing more sympathy to bear on the relations of the young men of the profession and those who attain to eminence and distinction; and the introduction of such men into the Council would bring the present members of that body into closer relation with the great mass of the profession, and would in that way be productive of very beneficial results." It is a remarkable thing that, at the last meeting of the Medical Council, Mr. Simon alluded to the great schism between the profession and the General Medical Council. I think there can be no question that the profession is in favour of direct representation, and the difference between them on this question tends, to a certain extent, to block legislation.

After a short adjournment,

Dr. WATERS said, in reply to questions put by Mr. Mitchell Henry, that he thought the Medical Council ought to take care that men whose professional conduct was discreditable should be removed from the Register. He did not make any specific charge against the Council as regarded the registration. As to the Pharmacopœia, it was very good, but not kept up to the requirements of the day. The Council had fairly discharged its duties in regard to the Pharmacopœia. With an improved Council there would be an improvement in medical education; and, in regard to the other points he had mentioned, greater confidence would be reposed in the action of the Council if there were representatives of the profession upon it. The corporations possessed certain disciplinary powers, but he was not aware that they ever used them; yet, notwithstanding this, the Medical Council had never made any effort to induce them to do so. There were certain men pursuing objectionable modes of practice, and these men preyed on the public. If the colleges with which they were

connected had the power of striking off the names of such men from the Register, that power ought to have been exercised; and if they had not the power, steps ought to have been taken to obtain it. He referred particularly to quack advertisers. He was aware that the Medical Council had, in the course of twenty-one years, struck off some. With direct representation the action of the Council would be quickened not so much in that respect as in the great matter of education. He was of opinion that a conjoint scheme was essential to medical education. Direct representation was, in the opinion of some persons, more important than the adoption of a conjoint scheme. He was convinced that a conjoint scheme would never be adopted unless it was made compulsory by Act of Parliament. As to the advantage, from an educational point of view, which would be derived from direct representation on the Council, instead of being opposed on questions of medical policy which came before the public, the Council would work together. By "medical policy" he meant matters relating to the medical profession, and to that profession in regard to its relations to the public. He was of opinion that the medical profession was, in many respects, better educated than it was twenty years ago; but taking the enormous progress of education generally in this country during the last twenty years, the education of the medical profession had not kept equal pace.

Mr. MITCHELL HENRY: Supposing a Bill were passed for compulsory conjoint examinations, without direct representation, do you think that such a Bill ought to pass?

Dr. WATERS: I think that when legislation is entered upon it ought to be made as complete as possible. I am prepared to say personally that I would rather have no compulsory scheme for conjoint examinations unless all the other reforms took place; but still it is undoubted that the profession demands it. I believe that there would be strong opposition throughout the country to the passing of any Bill for a conjoint scheme which did not also include direct representation. Dr. Waters added, with regard to the number of the Medical Council, that he thought it would be injudicious to diminish it to any great extent. There was a good deal of work to be done by the Council, and numbers were a great advantage for the formation of committees. He believed that if a conjoint scheme were passed into operation without delay, it would be a great boon to the profession and the public.

At this point the chair was vacated by Mr. Forster, whose place was taken by Dr. Playfair.

In reply to Mr. Plunket,

Dr. WATERS said that six nominees would, he considered, be adequate to represent the professional interest. He would not desire to increase the number of the Council in order to make room for the six in question. Certain of the corporations, such as the Apothecaries' Society of Ireland, might be altogether disfranchised, while others might be linked or grouped together. He would not debar the Council from the discussion of any matters which it might think it desirable, in the interests of the public, to enter upon; but he would not make it the special business of the Council to discuss general topics. There were no men who so well knew the defects of the system through which they had passed as those who had done so recently and embarked in practice; and these men would bring into the Council knowledge of certain conditions with regard to the education of the profession. Although he would not curtail the time of the Council for discussing matters of public interest, the speeches might be limited by time. There would not be much time given up to the discussion of these topics even if they were mooted. The conjoint scheme was what occupied so much of the time of the Council. If the wish of the Council had been conceded in 1870 a great amount of valuable time would have been saved. As to whether it would be politic to obstruct the Government Bill, supposing direct representation were not conceded, Dr. Waters said that it was his opinion that no majority would be found strong enough to carry any Bill which did not contain the wishes of the profession. The Association was pledged in 1870 to obtain direct representation, and, knowing that the whole profession as a body held that view, they could not accept a Bill that did not include it. He was not aware that he had the means of obstructing the Bill.

By Mr. FERRINGTON: He did not think that the decreasing majorities in favour of a conjoint scheme showed that thoughtful persons saw greater difficulties in the way. The

opposition to the conjoint scheme was more pronounced in the present day from the belief that the medical authorities in Ireland and Scotland would suffer by it. He did not think that the change of opinion which had taken place in Ireland and Scotland would ever extend to England. The licensing corporations ought to be diminished as much as possible, and entrance into the profession made through one portal, even though the licensing bodies were efficient. Corporations rose and fell, and it could not be known what they might be twenty-five years hence. Legislation ought to be carried out on broad general principles.

The Committee was adjourned to Monday, July 7, at twelve o'clock.

The Committee continued its sitting at twelve o'clock on Monday, July 7, the Right Hon. W. E. Forster, M.P., in the chair. The examination of Dr. Waters was resumed.

In answer to Mr. Maitland, on the question of the discussion by the General Medical Council of general topics,

Dr. WATERS said: I believe that the direct representatives would bring to bear a great amount of knowledge upon the deliberations of the Council in respect to such matters; but I believe still further that in that private intercourse which occurs between members of the same body assembled for a particular purpose, there would be a conversation, and interchange of thought in conversation, which would be of great advantage to the public deliberations, in that it would mature in opinions in private, just as committees of a public body may mature facts for consideration. I do not think that discussions of general matters would occur except under pressing necessity; but I believe that the consideration of these subjects in private, and possibly in public, would be more frequent. I believe that once the subject of the examination by conjoint scheme being settled, there would remain very little for the Council to do, except the visitation of examinations, and there would be more time for the consideration of matters of great public interest. I believe that the direct representatives would bring important knowledge as well as energy to bear on the question of medical education. The whole profession is unanimous for the improvement of medical education. Getting the largest number of candidates passed by licensing bodies is not the way to improve medical education. One of the great objects that we have in view in getting direct representatives on the Council is that the conduct of the visitation of examinations should be more to the satisfaction of the profession at large, as we believe it would be; and we believe that it would have been impossible, with such representation, for five years to have passed without a fresh visitation to Queen's University after the disclosures in the reports of visitors of examinations. With regard to the report made by Dr. Parkes as to the glaring ignorance of those who presented themselves before the Army Board, the Medical Council did nothing effectual. I am free to admit that there is a certain improvement in medical education, but I maintain that it has not advanced *pari passu* with the progress made in other branches of education. If there had been direct representatives on the Council they would not have allowed the matter of the Army Board to pass over in the smooth manner which characterised the communication of the Council.

Mr. ARTHUR MILLS: Are the answers which are given in this report on visitation of examinations of Queen's University answers given by candidates who have passed?

Dr. WATERS: They are the answers, as I gather from the report itself, of successful candidates.

Mr. ARTHUR MILLS: Are the members of the Council of your Association elected on the principle of direct representation?

Dr. WATERS: I am glad that you asked me that question, because I have learned that, in consequence of my not apprehending the question of the right hon. Chairman, I have left the impression on the mind of some of the Committee that we preach what we do not practise. As a matter of fact, the Council of the British Medical Association is, with one exception (to which I will presently refer), entirely composed of members who are freely elected year by year by the members of the different branches of the Association, and all these members may, if it seem good to their electors, be changed every year. Each branch elects annually one member of the Council for each twenty of its members—that is, 5 per cent. It also annually elects a secretary, who is, *ex officio*, a member of the Council. Now as to the excep-

tion to which I referred. We have, at our annual meetings, different sections; for example, medicine, surgery, etc. The president of each sub-section, who is chosen solely on the grounds of scientific distinction, becomes for that and the succeeding year a member of Council. We have also, at each annual meeting, addresses or orations on different medical topics—for example, again, medicine and surgery. Each orator, or lecturer, becomes a member of the Council for that and the succeeding year. This is the only exception to the absolutely and directly representative Council of the British Medical Association. It is, therefore, entirely erroneous to say that we preach one thing and practise another in the case of the Council of the Association. I wish that there should be no misapprehension in this important topic, and I therefore ask the Committee to allow me to state the facts with regard to the Committee of Council—which, and not the Council, is the executive body of the British Medical Association. This Committee of Council consists of, first, ex-Presidents of the Association, who have each been chosen as President by the vote of the whole Association in general meeting assembled—that is, by universal suffrage; second, secretaries of the branches elected each year by open vote of the branch which returns them; third, twenty members elected by the Council each year, the Council itself being members elected by open voting. Of these twenty, five are compulsorily retired each year. The Treasurer of the Association, another member of the Committee, is elected triennially by the open vote of the Association in general meeting assembled. Of course, the Association has gone in for direct representation, and they believe that the simple plan would be that the nomination of candidates should be advertised for, that voting-papers should be issued, and that those who had the largest number of votes should be the representatives of the profession. Then, if the Select Committee like to temper the universal suffrage of the profession by instituting an elective Committee, which Committee shall elect from itself members to represent the profession in the General Medical Council, I believe that the profession would be represented. The corporations are, at present, dominant in the Council, and the interests of several corporations are not the interests of the profession or the public. Professional representatives are required to temper this domination of the corporation representatives.

Mr. ARTHUR MILLS: Since the passing of the Act of 1858, which it is the present purpose of the Committee to amend, has the Association generally acted in Parliament, as far as it could, with the Medical Council?

Dr. WATERS: We have been most desirous to co-operate with the General Medical Council, and we made great efforts to induce it to do away with the anomaly of the Council and the profession being antagonistic. In 1867 I was President of the Association. We were not exactly aware of what measures of amendment of the Medical Act the Medical Council contemplated, but at that time we reposed great confidence in the General Medical Council, and we therefore suggested that we should support the Medical Council; and a resolution to that effect was moved by myself, seconded by Dr. Wilbraham Falconer, who was then Treasurer of the Association, and carried unanimously. Opinions have been actually expressed at different times, by members of the Medical Council, in favour of the principle of direct representation, amongst them being Sir Dominic Corrigan, Dr. Paget, Dr. Sharpey, Dr. Parkes, and Dr. Andrew Wood. I do not agree with Mr. Simon that the expression of feeling by the profession in favour of direct representation was excited by sensational articles appearing in a section of the medical press, such as the *Medical Mirror*. I do not know a single member of the profession who is in the habit of reading the *Medical Mirror*. As to the suggestion that there would be something of the trades union element introduced, the Association has never deviated from the principles first set forth—the desire to improve the medical education of the country. The signatures attached to the petitions which have been presented are entirely *bonâ fide*. It is a *bonâ fide* judgment of the most thoughtful men in the profession; and if it is suggested that these memorials or petitions had been got up in order to forward pecuniary interests, or from interested motives, it is entirely wrong. It is very kind of the opponents of the principle to suggest all this; but the advocates of the principle have no doubt that it would materially contribute to that harmony which exists generally in the profession, and which ought to exist in the Medical Council. The existence

of anomalies in the past is no reason why, after opinion is obtained as regards the profession, the same anomalies should be continued. As to whether the Council would be deteriorated by any change of representation, my belief is that there are men of the first distinction in the General Medical Council, but I believe that there are men of equal distinction outside; and as regards a great many of the Medical Council, there can be no question that the profession outside contains men, deservedly or not, of far greater mark in the estimation of the profession.

Mr. ARTHUR MILLS: What view does the medical press generally express with regard to the alteration of the Council?

Dr. WATERS: The *Lancet* and the *British Medical Journal* (which is the journal of our Association) are decidedly in favour of it. I cannot speak absolutely of the *Medical Times and Gazette*. The Irish Medical Association, which issued last year "Observations of the Council of the Irish Medical Association on Intending Medical Legislation," is also unanimously in favour of it.

By Dr. PLAYFAIR: I generally approve of the Conjoint Scheme which was prepared by the universities and corporations. The conjoint examination is not so popular in Ireland as in England. In Scotland feeling is divided, because it is supposed that it will be prejudicial to the interests of the universities.

Sir TREVOR LAWRENCE: Do you consider that there is no danger that these men thus elected by direct representation will still have each a strong regard to the interests of his own *Alma Mater*, and that, so far from the interests of the corporations being less represented, there will be some danger of their being more represented?

Dr. WATERS: I believe that the men who would be representatives of the profession would be amenable to the bar of the profession; and that it would be impossible for them to advocate the interests of corporations as opposed to those of the general profession. The Medical Council has made improvements in medical education, but they have rested on pressure from without. The Council has not yielded sufficiently to that pressure. In connexion with curriculum, I do not think that the strain of a present examination is too great for men of moderate ability and moderate diligence. None of the corporations or universities desire to reject men. Their object is to treat them leniently. I think that botany and chemistry might well form part of that preliminary education of students. General culture requires it. I would not increase the curriculum of the University of Edinburgh, but I would like to have the curriculum of all licensing bodies up to the mark. On the matter of prosecutions, I am not a very good witness; still I think that the General Medical Council, which has the Register under its guardianship, ought to take care that none but the most thoroughly respectable men are placed on the Register.

Sir TREVOR LAWRENCE: Do you not think that while some members of the Council—as, for instance, Sir James Paget, or Dr. Quain—might freely give up their time to subjects of medical education, they would be unwilling to give up their time to the consideration of matters of minor importance?

Dr. WATERS: I think that these gentlemen are the very men who, from their position and from the emoluments that they derive from it, are the best able to give up some of their time to the public good. I think that if their remuneration is such that a few hours in the course of a year cannot be given up to the public good, such men are better out of the Council. Poor-law medical relief has been put on a better footing, and does not, therefore, occupy such a prominent place in our programme to-day. But a discussion of sanitary measures generally would be a great advantage. I do not think that a reconstituted Medical Council would be any more a medical parliament than it is at present. It would embrace a large variety of subjects which it does not embrace now.

Sir TREVOR LAWRENCE: Is there in any other country any body with direct representatives taken from the profession for the purpose of dealing with the interests of the profession?

Dr. WATERS: There is no other country with a representative system as it exists in England. The Englishman desires representation. He believes that he ought to have a voice in everything that goes on in his own locality.

The next witness called was

Dr. GLOVER, of Highbury, who, in answer to the Chairman,

said: I am a doctor of medicine, graduate of Edinburgh, licentiate of the Royal College of Surgeons of Edinburgh, and licentiate of the Society of Apothecaries of England. I have been in practice for fifteen years. I am connected with the *Lancet* newspaper, and have had more opportunities of seeing the working of the General Medical Council, during the last twelve or thirteen years, than most people who are not members of the Council. First, I disapprove of the way in which the present members of the Council are sent there, although I have the highest possible respect for the individuals. I do not object to the corporations being represented, but I object to the predominance of the corporation interest. I regret that the Scotch universities are using all their powers in opposition to the present demand for conjoint boards. My strongest practical objection to the Medical Council is that it has failed to do what it ought to have done in regard to medical education. I admit that it has decidedly done some good. My main objection as to the work of the Council is that it has greatly added to the severity and stringency of examinations, that it has not made corresponding improvements in medical education, nor given corresponding care and time to improving the character of medical examinations. While it has added greatly to the severity of examinations, it has neglected the process by which the students should be prepared for the examinations. At its first sitting in 1859, the Council took the matter up, and a report was presented as to the necessity of preliminary education, and saying that by the next year the Committee hoped that it would be able to formulate its views on medical education; and up to the present time the Council has not given its deliberate opinion on the methods and details of medical education. In 1869, at the instance of Dr. Parkes, who was perhaps the most earnest educationist that ever sat on the Council, a committee was formed. In 1876, by the returns of the examining boards, it was seen that the number of rejections was steadily increasing, and it became evident that medical education was not improving, but actually retrograding. The Council had paid more attention to the stringency of the examinations than to the efficiency of the schools. The committees of the Council, such as that of 1869, had paid great attention to the length of curriculum, to the mode of teaching students, especially designing that they should be taught in more practical points.

The CHAIRMAN: I gather from this that you consider that one of the chief grounds of the present lamentable condition of medical education arises from there being no compulsion upon the schools to have a proper curriculum?

Dr. GLOVER: Yes, and no compulsion on them to accept the recommendations of the General Medical Council. The importance of midwifery in general practice cannot be overrated, and on that subject the Council recommended a six months' course; and yet, ten years afterwards, the same men sanctioned the conjoint scheme for England, which limited it to three months. I have ascertained that in 1867 there were rejected at the first professional examination 24 per cent., and in 1877 the rejections were 36 per cent. The first examination was supposed to take place at the end of the second year, and the second at the end of the fourth. It would appear that the more rejections were made by those examining bodies as to whom it had been thought, rightly or not, that their examinations were most easy, which might arise from the fact that the students thought that they would get off easier, and so went unprepared. The increased stringency of the examination tended to the improvement of education; but the school and its teachers would not be affected by it. Public attention was directed to this large number of rejections, and the medical press took the matter up, with the result that in 1876 a committee was appointed; but in the end only two resolutions bearing on medical education came out of it, and these, having only the nature of recommendations, are disregarded by the licensing bodies.

The CHAIRMAN: You are strongly of opinion that the object which, at any rate, was contemplated—namely, the raising of the standard of medical education—has not been attained. But do you consider that that has been the fault of the Council, or what I may call its misfortune? Has it been because the Council has not done what it could do, or because it could not do what was necessary?

Dr. GLOVER: I think that it was from a want of power in the Council. The Council had not the power to enforce the

improvements in medical education which it found to be necessary. I blame the Council distinctly for this—that it had not sufficient power, and that it did not ask for more. The Bill of 1869 would have given the Council power to regulate the process of study, medical education, and examination rules, but it distinctly requested to be excused. It wished to leave all details in the hands of medical bodies. I see two faults in the Council—first, want of responsibility; and next, a certain timidity, a fear of the representative bodies of which it is composed. The Council being thus faulty, the remedy which I propose would be, in the first place to alter its constitution, and then to make it more responsible by giving it more power. I would distinctly reduce the corporation energy in the Council by striking out some of the corporations.

The CHAIRMAN: That is rather a strong measure to propose. On what grounds would you do it?

Dr. GLOVER: On the ground that some of these bodies are evidently no longer wanted in the economy of things. They came into existence under a different set of conditions to those which now obtain, and the occupation by several of seats in the Council cannot be defended. I would name three. I would say that the Irish Apothecaries can be dispensed with. The English Apothecaries' Society, although it has done good work, is no longer wanted; and, perhaps, amongst the Scotch Corporations, the Faculty of Physicians and Surgeons. Until the Act of 1858 the English Society of Apothecaries gave the only qualification in medicine for English practitioners. It cannot examine in surgery.

The CHAIRMAN: Do you think that there is any truth in the allegation that members of the Council, however eminent, do not understand the wants of the profession?

Dr. GLOVER: I think that the Council is composed of a body of eminent men for the most part, whose duties in life are seriously different from those of general practitioners. For the most part, they have not struggled up. They are possessed of great abilities, and move in a good social position, and they have had greater advantages in education than fall to the lot of most men. Under these circumstances I do not think that they are able to appreciate the difficulties of a man who has to get on with an ordinary education. I would introduce into the Council men more familiar with the general wants of the profession.

The CHAIRMAN: Would that entail direct representation?

Dr. GLOVER: Yes, if it could be carried out; but I should not be particular about the method. I should be satisfied if the Crown would appoint the professional representatives.

By Dr. PLAYFAIR: I think that reform in the constitution of the Council and increase of power must go together. They ought to have some power of seeing that their recommendations are carried into effect. They should have power to visit not only the examinations, but the schools, and also power of complaint to the Privy Council.

Dr. PLAYFAIR: Would you give the Council the power of interfering with the autonomy of bodies whose very principle is self-government?

Dr. GLOVER: I think I would.

Dr. PLAYFAIR: There is another point—the mode in which it has exercised its registration functions.

Dr. GLOVER: The Register, on the whole, has never been considered a model of accuracy; and in some years very numerous cases of inaccuracy have been discovered in regard to the qualifications of those who were registered. I would wish to say here that I think the Council of Registration ought to show a tendency to punish those who, being registered, abuse registration. Under the present system persons have to undergo nearly identical examinations in order to be completely qualified. I think that it is both inconvenient and unjust to the candidate on the part of the corporation, which thereby derives double fees. If corporations are to exist separately as licensing bodies they ought to give complete qualifications in all subjects. Half qualifications ought to cease.

Dr. PLAYFAIR: Do you approve of the system of conjoint examinations given in the Bill?

Dr. GLOVER: I do not fully approve of that; but I think it would be a great improvement on the present state of things. I would leave to the Medical Council the power of electing three examining boards, one in each division of the kingdom; but if that is impracticable, then I would adopt the conjoint scheme. I would have an independent examining board which should act apart from the licensing bodies

After passing the examining board, men would be quite at liberty to enter for the higher qualifications offered by the corporations. I think that the higher the examination is made, the higher will be the demand for medical education.

Dr. PLAYFAIR: Do you think that there is much harm in difference of fees if your Council had got increased powers, and saw that the three conjoint boards were thoroughly efficient for examination?

Dr. GLOVER: That would be a great improvement, but I think that the fees must be equal, or else we should have the old charge of underselling. I approve of the recommendation that the first and second examinations should be conducted in the universities, and the final one by the conjoint board; but I think that the Council ought to be distinctly represented in the university examining board. Under the Bill, before a student could enter the profession, after passing the conjoint board he must become affiliated. Huge work has been thrown on the Council by the Dentists Act of 1868. I think that the Council should not undertake further duties in regard to specialists. I do not think there is anything to justify the Legislature in restoring to the Archbishop of Canterbury the power of giving qualifications which he lost in 1858.

By Mr. ERRINGTON: I should not be in favour of the Council having increased scope of action to any great extent. I would exclude the consideration of questions of medical policy, and questions affecting the profession generally, which might be left to voluntary associations. Such questions would not arise while the duties of the Council, as directed by Act of Parliament, remain such as they are. As to numbers, I think the Council is quite large enough. The examinations of examining boards would be examinations for admission to the Register. I am acquainted with the Bill brought forward by Sir Dominic Corrigan some years ago to the Council. I think that by passing such a Bill you would acknowledge the incompetency of the present examining boards.

By Mr. MAITLAND: The special Army and Navy examining boards might be done away with; but there might be some specialities with regard to the Army and Navy requiring special examination; but a man whose fitness to practise on her Majesty's subjects was recognised by the Crown ought to be allowed to take a Poor-law appointment without further examination. I would not compel a student to attend more than one course of lectures on a given subject. After attending one course he might be left to his own discretion.

By Mr. WHEELHOUSE: It is possible for an unprincipled student to gain his diploma by means of false representations as to his having attended the proper number of lectures. There is nothing to compel a student to attend a class in connexion with the lectures. There are some corporations where the curriculum is very restricted. I should not like to say where it is easier or easiest to find admission to the Register. I am in favour of a *Staats* examination scheme if not the conjoint scheme of three boards. I should rather prefer not to accept any Bill which did not reform the constitution of the Medical Council than have legislation without direct representation.

By Mr. MITCHELL HENRY: I do not think that the expense of election by direct representation would be great, and it would come out of the funds of the Council.

By Mr. MILLS: I think that the omission in any Bill of so important an element as direct representation would mean the indefinite postponement of the principle. The opinion of the medical press is distinctly in favour of the admission of direct representatives to the Medical Council.

By Dr. PLAYFAIR: A man who is simply a licentiate of the Edinburgh corporations has no right to the title of "Doctor." I do not think that the Colleges encourage the practice.

By Mr. MITCHELL HENRY: I do not mean that the licentiates of the Colleges of Edinburgh are in the habit of putting "M.D." after their names, but simply style themselves "Doctor." It was from no pecuniary interest that those who signed the memorials did so, but merely with a view of seeing direct representatives on the Council, and for the promotion of medical education.

Adjourned to Friday, July 11, at twelve o'clock.

MEDICAL PRACTITIONERS OF ST. PETERSBURG.—The entire number of medical practitioners in St. Petersburg amounts to 743, or a practitioner to every 887 inhabitants.—*St. Petersburg Med. Woch.*, June 14.

THE ROYAL AGRICULTURAL EXHIBITION.

ON every hand we hear the same sad burden—the terrible weather—and not the least sufferers are those who have taken part in the Agricultural Society's Show. Failure in almost every respect was evidently impending from the first. Pith and backbone were taken out of everyone, and, though dogged and determined efforts went on to make matters as smooth as possible, it was more with a despairing view to prevent greater disaster than to triumph over ordinary difficulties, and secure a great success. Everyone has cause for regret, and the public not least so. Never had there been such a collection of interesting objects; never, we believe, have there been conditions so determinedly opposed to sight-seeing: and there was much to see not only by those exclusively concerned in agriculture and its allied pursuits, but by such of us as have in mind merely the welfare of the general public.

Of the arrangements as regards sanitary matters we have already spoken. On such occasions these are all-important, especially on occasions when many thousands are expected to visit the Exhibition. It is hard to say which is the more difficult condition to deal with—intense drought and a burning sun, or incessant rain. With the former disinfection is all-important; with the latter it is well-nigh impossible or useless, for what is the good of pouring down disinfectants to be immediately washed away by torrents of rain-water? Had the times and seasons proved favourable a disinfectant called "phenyl" would have been largely employed, but, as matters stood, it would have been almost useless to attempt its use to any great extent. This phenyl belongs to the carbolic acid class, and is readily miscible with, but not soluble in, water. We may have something more to say of it on a future occasion.

But, turning to another feature of the Exhibition—not the food-producing power, but the food itself—there was much to interest. We are hardly wrong in saying that, to ladies at least, the great attraction was the dairy arrangements under the superintendence of Mr. Allender, the managing director of the Aylesbury Dairy Company, of which we have already had to speak. As regards this, there was but one cause of complaint—that it was not possible to see enough of it, and what was to be seen was too concentrated. Had the whole of the various processes employed been exhibited in detail one after the other, and the active operations been seen in due succession with all the modern appliances at work, the delight of many fair visitors would have been vastly increased; as it was, many were disappointed, not by the exhibition, but because they could not see the exhibits even though raised platforms were placed round the temporary dwelling-place of the exhibitors. It would be vain to tell here of the various paraphernalia now accumulated round dairy work, but they are all-important to the producer and the consumer.

Foremost among these we should put the simple process of making butter. Here it was possible to see the various stages, from the milk as taken from the cow, to the production of butter. Moreover, it was possible to purchase samples of this product on the spot. It is a fact that in London at the present day it is not easy to procure butter perfectly fresh, and without salt in it. We have become very much like the First George, who liked his oysters a little tainted. But with the easy access to London nowadays, and the ready sale thus offered, it should no longer be the case that butter should be treated with salt before being eaten. In this way alone it seems to us that such an exhibition should do good.

The Canadians are rapidly taking a lead in dairy matters. Already their cheese has driven the old-fashioned Cheshire out of the field; Gloucester is not much better. Cheddar still holds up its head; but the far-famed Stilton is in danger of death from the Italian Gorgonzola, and the sharper Roquefort. English cream cheese (for which, by the way, the Aylesbury Company took the first prize) still holds its own, but it is a perishable article compared with Neufchâtel—the popular Bondon—with the lordly Camembert, or the more humble Brie. But it must be confessed that the cheese show was exceedingly poor; and

had it not been for that indefatigable gentleman, Mr. Jubal Webb, the show would have lost half of its attractions. Especially he exhibited some of those tremendous Canadian cheeses, mammoth to any made in this country, and, as we are told (for the crowd in the booth prevented all chance of trying), of excellent quality. Moreover, he had some of the peculiar dry cheeses of the Parmesan class to show, which are so much used in Italy as an adjunct to macaroni and its allies. Some of these were very curiously shaped; and he had, moreover, some of the same dry quality from Cyprus, looking much as if the curds had been compressed by cord. We say nothing of the cutting of the cheese by electricity; that was part of the show given into the bargain. But, as far as we could find out, the big cheeses were good, and a formidable rival to some of our English products.

Practically, the only exhibitors in this department were the Aylesbury Dairy Company, and Mr. Ahlborn, of Hildesheim, in North Germany; and in their respective divisions were to be seen two most interesting methods of attaining the same object. The German exhibited, if we mistake not, a Danish invention—that of a Mr. Lemm or Lam. This consisted of a most ingenious, but badly constructed, application of the centrifugal method so cleverly adapted by the Finzels to sugar purification. When a cylindrical vessel is set in rapid circular motion the portion of fluid of the highest specific gravity contained within it will come nearest the circumference; and if a way is made for it to escape, it will. Now, in milk the cream is of course by much the lighter portion; it floats on the top of still milk, but in the rapidly rotating cylinder it occupies the middle space, and by making convenient exits the milk and the cream may be separated—whether perfectly or imperfectly, remains to be seen. The American plan is much simpler. A cylindrical vessel is filled with new milk, a cover carefully placed over it, and the whole sunk in water. The same plan we have seen often and often adopted in former years; but the novelty of the design is that the whole can may be covered by water, and that the milk may be drawn away from beneath, leaving only the cream in the vessel, fit for the churn.

(To be continued.)

A CONJOINT SCHEME FOR DOCTORS AND CHEMISTS.

WE here give a brief report of the action that has been taken in Rochdale with a view to separate the dispensing of medicines from medical practice.

Last February the Rochdale Chemists' Association appointed a committee to take such steps as might be deemed desirable, with a view to an arrangement for the dispensing of medicines to be done by the chemist instead of by the medical man, as at present.

The first thing that was done was to make somewhat extensive inquiries in different parts of the kingdom as to the practice now in use, and as to the effect so far as the interests of medical men and the public are concerned. A brief report of the result of these inquiries appeared in the *Pharmaceutical Journal* for May 3, 1879.

After this the whole of the medical men of the town were invited to meet the Committee on Tuesday evening, May 20, when eleven responded by their presence, being a majority of the medical men of the town. The result was that certain questions were raised by the medical men, and as they involved the chief objections to the plan, it was thought better to give some time for the consideration of these objections, and accordingly the meeting was adjourned to give the Committee an opportunity of obtaining further information, and preparing answers to the questions raised.

As a result of further inquiries, valuable information was obtained from Scotland (Edinburgh and Aberdeen, where the practice of dispensing by chemists is almost universal). And, after this, another meeting with the medical men was arranged, when the following document, containing "Medical Queries" and "Chemists' Replies," was submitted to the meeting:—

"I.—Q. It is said by medical men, that if patients are not supplied by them with medicine, they will have to charge a

reduced fee, the loss of which will not be covered by the saving in drugs and charges connected with dispensing?—A. Taking the figures as given in a typical case put forward by the medical men, in which 7000 visits are supposed to be made annually, if the fee be reduced sixpence per visit, we have 7000 sixpences, £175. But this reduction of the fee would not be made to all the patients; probably 25 per cent. would continue to pay the same fee as before. This estimate would reduce the loss by about £44; added to this the saving in the cost of drugs, estimated at £93—together £137—would leave a probable pecuniary loss where no dispenser is employed of £38. This loss would be more than covered by one extra visit per day in each week of six days, or one visit more per day throughout the year would more than cover the loss and pay for the few drugs that would be kept for emergencies.

"II.—Q. How could medicines be obtained by the public at night, on Sundays, and holidays, when shops are closed?—A. Some chemists would have a provision for all contingencies.

"III.—Q. How would the poor and the very poor pay for their medicine?—A. A standard price being adopted for general use, exceptions would be made as follow:—The prescription might be marked with the letter 'P.' (poor) by the medical man, if he thought any case deserving of such a distinction, when the chemist would charge one-half or one-third the usual sum; and, when the patient was very poor, the mark might be 'V.P.,' when no charge would be made for the medicine then supplied, but this would be followed by the chemist giving a recommendation to the dispensary, or he would refer the case to the Charity Organisation Association (if formed), or an arrangement might be made with the guardians to pay one-half or one-third the standard charge for those in receipt of parochial relief. The chemist would give credit on the recommendation of the prescriber, which might be expressed on the prescription by the letter 'C.,' or the chemist would do so on his own responsibility; but when credit had to be given the fully reduced charge could not be made.

"IV.—Q. What guarantee would the doctor have that the prescription would not be repeated without further instructions from him?—A. The honour of the dispenser, and the return of the prescription to the prescriber within twenty-four hours after being dispensed, except it was ordered to be repeated any given number of times, when it would be returned after being dispensed for the last time.

"V.—Q. What about counter-prescribing?—A. Ever since the incorporation of the Pharmaceutical Society, chemists generally have discouraged prescribing, in the hope that they would ultimately have the duty of dispensing the prescriptions of medical men. Where this practice prevails, there is no prescribing done by the chemists, except for such simple ailments as the medical profession do not care to treat, or the public do not think of asking their advice about. The result may be thus briefly summed up: The more dispensing by chemists, the less prescribing; the less dispensing, the more prescribing.

"VI.—Q. Could prescribers rely on prescriptions being accurately dispensed with good drugs?—A. The medical profession need be under no anxiety on this point. There are plenty of properly qualified chemists whose honour is a sufficient guarantee that the intentions of the prescriber will be strictly carried out both as regards accuracy of compounding and purity of drugs. Physicians at present depend almost entirely on chemists to carry out their instructions, which we believe is done quite to their satisfaction, as well as that of their patients."

After the reading of the above, there appeared to be a dead stand at the first difficulty—viz., that of pecuniary loss to the prescriber. But little difficulty, however, seemed to be felt with regard to the other points. Hereupon the conference terminated, without at present securing the result aimed at. But the feeling that remained was, that one or more of the medical men would cease to dispense for their patients at no distant date. It is hoped that, when once a beginning has been made, others may find it to their advantage to follow the example.

The Committee cannot close their report without expressing their thanks to those gentlemen at a distance who so kindly answered their inquiries, in very many cases with lengthy explanations and valuable suggestions.

FROM ABROAD.

EYE TROUBLES IN GENERAL PRACTICE.

UNDER this title Dr. Noyes read a paper before the New York Academy of Medicine (*New York Med. Record*, April 19), in which he adverted to several points of interest.

In the first place he called attention to the importance of recognising serious errors in refraction at an early period in childhood. Some of these are always congenital,—viz., hypermetropia, or far-sightedness, astigmatism, and cataract; while myopia is not usually congenital, but begins when children give steady attention to books, varying in its commencement between five and twelve years of age. Still, very young children are sometimes the subjects of extreme myopia, and then its congenital character is extremely probable. The want of suitable aid to sight in cases of aggravated myopia not only inflicts upon the children unnecessary discomfort and privation of enjoyment, but has a bearing upon their character and development which is most unhappy.

"I therefore beg to ask that if your attention is called to young children whose traits of character excite surprise, and who are considered to be strange and deficient, you will make inquiry whether they possess good sight. For the very young—viz., those under five years—tests of reading may not be applicable; but happily, in our day, the trained observer can quickly decide by the ophthalmoscope whether any error of sight exists, and also point out the remedy, irrespective of intelligent answers in co-operation on the part of the child. I would not hesitate to give a young child the use of needful glasses for at least such periods of time as should serve to inform his mind of the true character of surrounding objects, provided the ocular defect was great enough to pervert or obscure his perceptions. In respect to *congenital cataract* the same remarks apply; and I mention this condition to bring out the fact that there may be a most serious loss of transparency in the crystalline which will not in the least be visible to ordinary inspection, and the pupil shall have the normal degree of clearness and blackness. The ophthalmoscope will unerringly discover the lesion, and the proper treatment will follow. Moreover, an operation ought to be done early—in healthy children by the end of the first year. To the same category belongs, in a degree, the subject of *strabismus*, the foundation of which is erroneous sight. The order of events is first visual error, and then disturbance of muscular action. It often happens that if the visual error be corrected the muscles will redress themselves, provided they have not undergone organic shortening. If this result be attained, the cure is much more likely to be of that perfect kind which includes the obtaining of proper binocular vision, rather than that incomplete cure which makes the eyes look as if they worked together harmoniously, but consists really in the use of but one eye at a time. I grant that the defect of sight in one eye is often incurable, and that the best result may be impossible; but this result should not be an excuse for omitting to discover the visual error and its quality. I do not mean that an operation can be often avoided, but I insist that the first step is to recognise the visual error before the muscles have undergone permanent perversion. Among the most intelligent persons who bring their children for examination at the very beginning of squint, I have, in not a few instances, been able, by the timely suggestion of glasses, to aid the child's sight so much that the disposition to squint has been kept under control, and the function of co-operation of the eyes been preserved, until the age arrives when an operation may be most appropriate. Such treatment is the ideal method of dealing with squint."

Dr. Noyes cautions against too great delay in the use of weak magnifying glasses when the adjusting power begins to be impaired in middle life, the need of help being not seldom indicated by irritation of the eyelids and a sense of worry about the eye, as well as by the difficulty of seeing in the evening and reading small print. He adverts also to the frequency with which chronic or recent invalids (especially from affections of the uterus) are alarmed at finding their sight defective—suffering as they do from

enfeebled duration of accommodation and feeble power in the ocular muscles, and complaining not so much of indistinct or blurred vision as of pain in attempting to read or sew, etc. The same condition is observed in convalescence after severe illness, from exhaustion from various causes, from sleeplessness, chronic dyspepsia, etc. While the means are adopted tending to restore vigour, the patient's eyes should be gradually exercised by what is termed "Dyer's method," and the ocular muscles should be aided by the use of prisms. To such of these patients as become chronic invalids, slight degrees of far-sightedness or of astigmatism, which in health are of no account, require to be corrected by glasses. Faintly tinted glasses are also of use, and perhaps relief is most commonly found by combining weak magnifying glasses with abductive prisms. These persons almost always have irritable and congested conjunctival membranes; and treatment of their eyelids and regulation of the light is of no small value. Of far more importance from their severity, but of much less frequent occurrence, are cases of intense hysterical photophobia, dependent on a perverted condition of the nervous system, and requiring great firmness, tact, and penetration in their treatment. The weakly people, whose eyes were just now referred to, should be treated with every encouragement in reference to the eventual issue of their cases; and they should take certain precautions in the use and exposure of the eyes. Thus, when menstruation is painful, reading should not be pursued in the recumbent posture; as this is more trying to the eyes, since the ocular muscles do not act in the combinations and proportions to which they are adapted for reading in the erect posture. The modern bonnets leave the eyes unprotected from the sun and wind, and the sensitive have to guard them with umbrellas or coloured glasses. To such persons reading in railways or carriages is injurious, while ill-ventilated or crowded and brightly-lighted rooms are offensive. After several highly interesting observations on conjunctivitis, keratitis, iritis, and sympathetic ophthalmia, for which we have not space, Dr. Noyes thus concludes on the differential diagnosis of cataract and glaucoma:—

"It is not uncommon for cataract in old people to be confounded with glaucoma, and *vice versa*. It is true that cataract is the more frequent disease, but it is not fatal to sight as glaucoma. Now, the latter often seems to the naked eye to be just like cataract. The distinction between them can to some degree be made out by any physician, and is to be found by noting that the eye which has glaucoma is hard and resists the pressure of the finger far more than the normal eye, or than a cataractous eye. Again, the field of vision is invaded and partly cut off, especially on the nasal side, by glaucoma. How shall this be discovered? Examine each eye by itself, having the other shut. Let the patient look at your eye, and, while he fixes his direct gaze upon you, let him note whether he can see the hand held up at his temporal side, and afterwards on his nasal side. On the outer side the hand should be visible to an extent of almost 90°; on the nasal or medial side the limit of the field of view is from 40° to 45°, being bounded by the height of the nose. Now, in glaucoma, while the direct vision suffers more or less, the lateral vision is also very markedly impaired. Especially does this take place on the nasal side, and to this symptom I invite special attention. By very simple experiment it will be found that absolute blindness exists over a space on the nasal side of the field of vision, in which a cataractous patient will be perfectly able to see light and perhaps also objects. The real diagnosis of glaucoma will need the help of the ophthalmoscope, and that is of no use to the untrained and inexperienced observer. Another point is perhaps worthy of note—viz., that while in glaucoma the pupil is very apt to be smoky, this may be thought to be evidence of cataract, whereas a smoky pupil is the natural condition in the eyes of old persons."

OINTMENT IN GONORRHOEAL ORCHITIS.—Dr. Alvarez recommends one to two parts of iodoform to thirty of lard as an ointment which is to be rubbed into the testicle. It relieves the pain in the course of an hour or two, notably abridges the duration of the orchitis, prevents consecutive induration, and does not induce salivation like mercurial ointment. For it may be substituted elastic collodion, containing from two to six parts of iodoform to thirty of collodion.—*Union Méd.*, July 3.

REVIEWS.

An Introduction to Pharmaceutical and Medical Chemistry, Theoretical and Descriptive. Arranged on the principle of the Course of Lectures on Chemistry as delivered at the South London School of Pharmacy. By JOHN MUTER, M.A., F.C.S., President of the Society of Public Analysts. London: Baillière. Pp. 398.

An Introduction to Analytical Chemistry. Being the Practical Portion of the Author's work on Pharmaceutical and Medical Chemistry. By the same. Second Edition. London: William Baxter, and Simpkin and Marshall. Pp. 216.

It is not very easy to criticise the two works now before us. They are not, it is true, constructed on the same lines as some others, but they have this peculiar quality, that they have been written by a man who is essentially one not to waste space and time by the introduction of the useless. Dr. Muter has been successful in getting together a large and important school of pharmacy by his own unaided endeavours. His classes he conducts on the strictest principles of what is best for the pupils, and these volumes are the reflex of his teaching. Were it for this reason alone, the volumes would be well worthy of consideration, but in reality they are crammed full of valuable matter put in the plainest form attainable.

The National Dispensatory: containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines; including those recognised in the Pharmacopœias of the United States and Great Britain. By ALFRED STILLÉ, M.D., LL.D., Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania; and JOHN M. MAISCH, Ph.D., Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. London: J. and A. Churchill. Pp. 1628.

THERE are, we fondly believe, certain of our number who have not as yet cast off every rag of belief in the value of drugs in the treatment of disease, and to such we would most heartily commend this volume. The days of medical intolerance are not yet gone, though they seem to be fast disappearing. It is not long since we heard an eminent physician recount the difficulties he had to encounter in prescribing aconite, because, forsooth, it was a—homœopathic remedy! More recently, we have heard a still more eminent physician declare that he had been hindered from declaring his belief in the use of mercury in certain cases, "lest it might injure him." Probably both of these gentlemen were mistaken. At all events, we are sure of this, that the great bulk of the profession hold strongly to the view that anything which will help them to treat disease is to them matter of rejoicing. To the profession at large, then, we will appeal when we say that the Messrs. Churchill have done a public service in introducing this book to English readers. There are many among us who still look back with affectionate gratitude to a book called "Christison's Dispensatory." Many will also recall the immense funds of information contained in Pereira; Trousseau; and Pidoux is not unknown to us; neither Husemann nor Nothnagel have been overlooked; nay, the old U.S. Dispensatory by Wood and Bache is now before us; but, if we err not greatly, the present work surpasses them all. As far as we can see on that perusal which can alone be given to books which are only intended to be books of reference, we should say that this is probably the most perfect book of its kind now available. Undoubtedly it has its basis on the American Pharmacopœia, but the English is also included, so too are the most important preparations of the French Codex and the German Pharmacopœia. In this way, therefore, the work may be looked upon as a kind of international codex available to the English-speaking community of all nations. The work is framed on the dictionary plan, and each word has its synonym in the French and German recorded along with the English title. Remedies of all kinds, recognised and unrecognised, are dealt with, though the former are distinguished by the initials of the Pharmacopœia which includes them. Neither Latin, technical, nor popular names are omitted. It would not be easy to tell what is *not* discussed in connexion with each drug or chemical substance: botany briefly and succinctly—pharmaceutics at greater length; this

including preparation and treatment of drugs, their physical and chemical characteristics, their chemistry as far as possible, their adulteration and impurities. Processes are described in the same language, or nearly so, in which they are described in the various codices whence they are derived. As regards the value of drugs, the authors have ventured on the somewhat dangerous ground of physiological action as well as the ordinary views as to therapeutical effect. One special feature of the work is what the authors call a Therapeutical Index, giving a list of the remedies commonly employed in the treatment of different diseases under the heading of these latter. Such a sketch, however brief, will give some idea of the contents of the work. It is, emphatically we would repeat, a book for the practitioner, one well calculated to give him hints as to treatment, and most suggestive as to remedies. It would be difficult for us to say more.

GENERAL CORRESPONDENCE.

THE APOTHECARIES' SOCIETY v. SHEPPERLEY.

WE have received from Mr. G. Eaton Stanger, the President of the Nottingham Medical Defence Association, a letter on the subject of the above case, but it is so lengthy that we cannot possibly find room for it. We hope, however, that a few extracts from it may serve to recommend to the profession Mr. Stanger's appeal for aid. After noting the failure of the plaintiffs to obtain a new trial, Mr. Stanger remarks—"If our funds had justified it, we should certainly have liked to carry the case as far as possible, and I am sorry we have been unable to obtain a decision from the Court of Appeal on the question of law involved in the case, especially as to the effect of the defendant's admissions, to which, at the trial, neither judge nor jury, in my humble opinion, attached sufficient weight"; and then goes on to speak of the employment of Death, the private detective, as a witness, and of the general weakness of the case—"circumstances," he writes, "which brought upon us from some quarters not a little censure. The fact is, it was never intended in the original proceedings in the County Court to rely on the evidence of this witness at all; he was not even to be put into the box. We had other witnesses who, judging from the statements they had made to our solicitors, were prepared to prove a strong case against the defendant. These witnesses entirely failed us. One was unavoidably absent, and the others from some cause or other departed very materially from their previous statements; we had therefore no alternative but to call Death, the detective. This being so, we were quite prepared to lose the case, but, unfortunately for the funds of our Association, the learned judge decided in our favour, partly on the evidence of Death, but chiefly, as he said, on the admissions made by the defendant." The defendant appealed, and a new trial was ordered in the High Court. The plaintiffs expected that the High Court would give a decision on the question of the legality of counter-practice, and, therefore, encouraged also by some assistance from the profession, and by the advice "of an eminent Queen's Counsel," they went to trial, with the result, as is well known, that they lost the case, and have to pay the defendant's costs as well as their own from first to last. Mr. Stanger further says:—"But though we lost the verdict, the trial has not been without advantage to the cause we sought to serve. It was the means of eliciting from the learned judge who tried the case an interpretation of the law entirely favourable to that cause. I will not weary your readers by any lengthy extracts from the summing up in support of this proposition. It will be sufficient to take the admission of our adversaries themselves. The *Chemist and Druggist* of November 15, 1878, in a somewhat triumphant article on the victory won by the defendant, fully recognises that this, the latest exposition of the law on the subject, is dead against counter-prescribing. The following quotation from that article will show the writer's view of the question: 'What no one who studies Baron Pollock's summing up can doubt is, that he substantially agrees with the judgment of Baron Bramwell, and interprets the law almost in exact accordance with the views put forward by the Medical Defence Association. The latter body could hardly have desired

a more favourable exposition of the Apothecaries Act, though it is some satisfaction to us that they will have to pay pretty smartly for it.' If we have to pay pretty smartly for an authoritative exposition of the law so damaging to the cause of our opponents, we may fairly ask the profession, whose battle we have been fighting with such a result, to share with us the costs we have been put to in obtaining it. The total costs that have fallen upon us amounted to nearly £500, and of this sum about £150 remain to be paid, and it is for the purpose of assisting us to raise this sum that the present appeal is made, and we shall be much obliged for any contributions that our medical brethren may favour us with. Cheques or Post-office orders forwarded either to myself or to H. R. Hatherley, Esq., Honorary Secretary, Nottingham, will be gratefully acknowledged."

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

W. S. PLAYFAIR, M.D., F.R.C.P., President, in the Chair.

ADJOURNED DISCUSSION ON THE USE OF THE FORCEPS, AND ITS ALTERNATIVES IN LINGERING LABOUR.

The adjourned discussion on the 2nd inst. was opened by

Dr. ROPER: In considering the question of the frequent use of the forceps, as now before the Society, it is important to confine our observations to natural labour, to the exclusion of every kind of complex labour. But as we hardly ever use forceps in a perfectly natural labour—that is, a labour free from all factors of difficulty, we must have some indications of slight difficulty for which it is justifiable or desirable, if not absolutely necessary, that forceps should be used. In what I have to say, I will speak—first, from observation, from clinical experience; and, secondly, I will make some statistical remarks. The labours to which I have been called to use forceps have been of two kinds; but my observations for the present have reference to the second stage of labour only. The first kind of labour to which I wish to call attention is a lingering, feeble labour, mostly occurring in women who have had many children, in whom the uterine force is very feeble from the beginning to the end of labour. The pains are very slight, and occur only at long intervals, and the labour is protracted simply through uterine atony. The soft parts are very lax, and offer but little or no resistance; the child's head lies loosely in the pelvic cavity, and can easily be moved about in any direction; there is no pressure on the maternal soft parts, and no constant contraction of the uterus to arrest the foetal circulation. Such a labour, however long it may last, will almost always terminate naturally by expectancy. It may seem to the patient, her friends and attendants, that delivery is desirable; yet certainly it can but rarely be absolutely necessary. If in such a case we decide to deliver with forceps, I have never regarded it as good practice to do so without using ergotine by subcutaneous injection. Frequently, however, the manipulation which is necessary in applying forceps will stimulate both the uterus and the reflex and voluntary expulsive efforts of the patient. I do not trust to ergot alone as an alternative to forceps; but I use it as an adjuvant. Although ergot generally stimulates the uterus to increased action, it does not always succeed in expelling the child. The uterus under the influence of ergot seems at times to contract on the child, and thus by its continuous tonic action will speedily destroy the life of the child if it be not quickly liberated from this vice-like pressure. When its influence is expulsive I would give it a chance of effecting delivery; but I would not wait longer than ten minutes after the uterus had become ergotised before applying forceps. If there be any efficacy in pressure on the fundus uteri to expel the child, this is the kind of case in which it ought to be useful; but I place no reliance on it as an operation *per se*. I believe we cannot thus squeeze out a child as we express the placenta. I was glad to hear that at the last meeting of the Society it received the condemnation of Dr. Lombe Atthill. I have heard this manœuvre spoken of as "shoving" children out. We must bear in mind that while the process of "shoving" children out is a mere mechanical proceeding, yet the manipulation

of the fundus uteri to effect this will frequently act as a stimulant to the atonic uterus, and cause it to act. In many patients with lax uterine tissue and a flabby state of the soft part of the outlet, the child is ready to drop out without giving the patient much warning. The second kind of labour is of an opposite character to that just described. This labour for the most part occurs in primiparous women who are young and robust, in whom we get a powerfully acting uterus, pains of a forcibly expulsive kind occurring frequently, and the expulsion of the foetus being resisted by rigidity or tonic contraction of the soft parts of the outlet. In such a case we see the head forcibly thrust down with each pain on the soft parts of the floor of the pelvis, distending the perineum to the thinness of parchment, and yet it does not come through. On cessation of the pain the head retreats quite back into the pelvic cavity, all tension is relieved, the maternal soft parts are freed from pressure, and the placental circulation is restored during the interval between the pains. Very many pains may occur, and a long time elapse before the head is protruded, but so long as the uterus continues to act thus forcibly and rhythmically the use of the forceps is contra-indicated. Nature seems to be admirably using a force little by little; the progress of the head is very slow, but is nevertheless certainly going on. During all this time two conditions are being brought about which facilitate delivery—namely, relaxation of the rigid soft parts, and moulding of the foetal head. If a greater force were applied at one time, as in delivery by forceps, severe stretching, bruising, and tearing might reasonably be expected. It may, however, happen that the powerfully-acting uterus in the end is unable to overcome the rigidity of the soft parts of the outlet. We are warned of this approaching failure by the pains becoming less forcible and occurring at longer intervals; there is less movement or progress of the head with each pain; the uterus, as felt through the abdominal wall, is becoming persistently hard from tonic contraction; on making a vaginal examination the head will be found immovably arrested or impacted; the labour finally has come to a standstill. This is a state of things which experience ought to teach us to anticipate. We ought not to allow protracted laborious labour to run on to a state of dead-lock; sound judgment directs us to supplement the failing powers of nature by the timely use of the forceps before the breakdown takes place. The highest degree of refinement of judgment will here manifest itself in directing us when we should use forceps, and the same refined judgment will admonish us when we ought not to use them. I not unfrequently hear of perineums being ruptured through into the rectum by the premature use of the forceps—misfortunes which, I believe, would not have occurred if the cases had been left to expectancy. The two casts exhibited represent in the one case a large round head born in a feeble lingering labour, the mother having had fifteen children at full term. Ergot was given in the second stage of labour, which severely ergotised the uterus, and the child was not expelled till after it had been squeezed to death. The second one represents the head of a child extremely moulded, having been left for a long time in a laborious first labour, so long as to be fatal to the child, delivered by forceps. Doubtless, the timely use of the forceps would have saved the lives of both these children. One child lost its life by ergot, the other by expectancy too long continued. I will now speak of the application of forceps in the first stage of labour—that is, in a labour where the factor of difficulty is a tedious, lingering dilatation of the os uteri, accompanied by pressure on it of the bag of membranes, or of the presenting head itself when the liquor amnii is discharged. It is alleged that pressure of the head on the os uteri, especially after the escape of the liquor amnii, is a source of danger to the life of the child, and productive of serious consequences to the maternal structures, if not to the life of the mother; and therefore, to avoid these dangers, it is desirable, if not absolutely necessary, to effect delivery with forceps even where the os uteri is only two-fifths, three-fifths, and four-fifths dilated. The existence of such dangers during the first stage of labour has not been observed in my own experience. I have never seen a single case of death of either child or mother, nor damage to the maternal structures, from a protracted first stage of labour. I am, of course, speaking of labours which are otherwise natural excepting a rigid state of the os uteri. I would here observe that by rigidity of the os uteri is meant that

condition of structure which consists in mere physiological rigidity, such as we get in the tonicities of the soft parts of young, robust primiparæ. All structural diseases of the os being excluded, we must also omit that very rare form of difficulty, trismus of the uterus. We must also take great care to omit all other causes which really belong to the domain of complex labour. Let us, then, take a simple case of rigid or slowly dilating os uteri, such as we most commonly see in first labours—say two-fifths dilated. Let the membranes be ruptured, and then we have the head itself pressing on the os with each pain, and receding from it when the pain ceases. The discharge of the liquor amnii will necessarily cause the first stage of labour to be protracted and somewhat more painful than when the membranes are entire; every practitioner of experience will be prepared for this as a natural consequence. But in such a case there is no continuous pressure. The uterus does not, in the first stage of labour, take on a persistent contraction, as it does when exhausted after a prolonged laborious labour in the second stage. No impaction of the head can happen in connexion with the first stage of labour. I am now speaking of a case where the head is above the brim at the commencement of the first stage of labour. When the head is pressed down on the os this is gradually expanded, the long axis of the uterus is shortened, and as the os is drawn up over the head, the head is forced through the brim down into the cavity of the pelvis. If the whole pelvis be normally formed, the head will always be driven down on the os; if, however, the head does not descend on the os, but lodges on the brim during a pain, then we must seek for some disproportion or other cause of complex labour. I think it of the highest importance to keep up a wide distinction between a head above the brim which does not come down because it is obstructed, in the one case by the brim itself—a bony obstruction—and in the other by the rigid os and lower segment of the uterus. By the time the first stage of labour is completed in a perfectly natural labour, we may take it as a certain rule that the head will be down in the cavity of the pelvis. If, when the os is nearly fully dilated, the head remains above the brim, we may reasonably expect some complex form of labour, probably a conjugate contracted in a small degree. If we elect to apply forceps because the head which is pressing on the os does not speedily or readily dilate it, it seems to me that we are not simply assisting labour, but that we are really anticipating it, converting a physiological process into a mere mechanical proceeding. It is actually a forced kind of delivery, such as we are at times obliged to have recourse to in certain complex labours attended with imminent danger to the life of the mother. In such cases I have frequently seen the os uteri and head dragged down together, so that the rim at the os has been seen at the vulva. Dr. Lombe Atthill mentioned at the last meeting of the Society three highly instructive cases: the first showing what may be done in the hands of a skilful and experienced operator; the second the damage done, even to the destruction of the mother's life; and the third in which he desisted in his efforts to deliver through a fear of lacerating the os, and the child was born naturally eight hours after—a triumph of expectancy. Dr. Collins, in his "Practical Midwifery" (page 16), has made an observation which is in accordance with my own experience—namely, that the death of the child as a rule precedes injury to the maternal structures, so that whenever a child by stethoscopic examination is found to be alive, we may take this fact as presumptive evidence of the safety of the maternal structures. In twelve thousand cases in the Royal Maternity Charity, though I have seen several cases of children still-born from protracted labour, not one case of sloughing or even severe inflammation of the maternal structures has occurred. It is said by some of those who advocate the frequent use of the forceps in the first stage of labour that the instrument should only be used when the os is dilatable; it seems, therefore, that the forceps are employed in cases where no necessity exists for their use, for the head pressing on a dilatable os will soon expand it. There is a class of cases belonging to neither feeble, lingering labour nor to the exhausted condition of laborious labour, such as we see in very nervous women, whom it is desirable to deliver by forceps. Such women bear their pains badly; they are unskilful in their efforts to assist the uterine force by their voluntary efforts; on the contrary, they do all they can to retard delivery by screwing themselves into attitudes un-

favourable for delivery. It is good practice to place such women under the influence of chloroform, and deliver them with forceps, provided there be no contra-indications. In the prolonged first stage of labour, caused by rigidity of the os, when the patient is wearied and fatigued (not exhausted, for the term "exhaustion" is here continually misused), my practice has been to give opium or repeated small doses of chloral, or to use the inhalation of chloroform to a mild extent, with a view of procuring rest, giving, at the same time, easily digestible nourishment. It is also important to assure the surrounding friends of the safety of such a labour, though it will, of necessity, be protracted, and thus save the patient from their incessant worry and importunities that something should be done to deliver the patient forthwith. I will now refer to the frequent use of the forceps in ordinary practice, such as we know to be a custom of the present time. Many practitioners are in the habit of taking forceps with them to every case of midwifery to which they are called, and whenever any delay takes place, the forceps are forthwith applied without the existence of any factors of difficulty. The instrument cannot be said to be used in such cases in the interest of either mother or child; the best that can be said in favour of such practice is that it diminishes the duration of maternal suffering; and this it may do, but against this diminution of prolonged suffering of a slight kind we must place the intense pain of rapid delivery by forceps, the risks of injury, post-partum hæmorrhage, trouble with the placenta, and the after-effects of sub-involution caused by not allowing the uterus to do its own work. I cannot help thinking that much of the gynæcological work of the present day results from this frequent interference with the natural functions of the uterus in childbirth. We must all have observed the good gettings-up of women who have gone through severely laborious labours, probably a consequence of vigorous uterine action tending to produce good involution. The remarks of Dr. McClintock on the question of the frequent use of the forceps in ordinary midwifery practice, in one of his annotations in editing Smellie's works (vol. i., p. 271) are so excellent that I cannot forbear quoting them. He says:—"I can well understand that, provided this powerful agent be employed by skilful hands under the direction of experienced heads, it may be employed at the rate of *one in ten* with perfect safety to mother and child, and with great saving of pain to the former and of time to the operator. But I maintain that more than two-thirds of the patients so delivered would have fared just as well had no instrumental assistance whatever been given. In simply tedious labours, the exact time at which the forceps may be advantageously interposed must depend a good deal on the operator; the risk from the instrument being so much less with a good than with a bad operator. The former need not wait so long for a natural termination as the unskilful should do. Moreover, we should never forget that the *practicability* of using or applying the instrument is totally different and distinct from the *advisability* of doing so." Also, in speaking of the use of forceps in the first stage of labour, he says: "But its employment under these circumstances is quite exceptional, and can only be regarded as a resource of which a skilful operator may avail himself in cases of extreme urgency." I have here a record of 9389 cases of my own in the Eastern Division of the Royal Maternity Charity. I used the forceps 80 times in those 9389 cases. The total number of foetal deaths with forceps was 17; total number of maternal deaths with forceps, 2; total number of cases of craniotomy or cephalotripsy, 13; total number of deaths after craniotomy or cephalotripsy, 2; total number of still-births in total deliveries, 300; total number of maternal deaths from all causes, 32. Then I have given the factors of difficulty in forceps cases, and gone through the whole of them in this way: maternal deaths with forceps; craniotomy deaths with forceps; and so on. Then I have given maternal deaths from all causes in chronological order. Then I have taken these 9389 cases and compared them with the practice of Dr. Johnston and Dr. Collins. I have done this because Dr. Johnston's practice represents a high rate of mortality, Dr. Collins's a low rate of mortality, and my own practice a middle rate of mortality. There is one explanation that ought to be given of the table with regard to the number of children still-born after the use of the forceps—54. Sixty children delivered by forceps died very soon after delivery. That is an important clinical fact. If we deliver a child

before the head has had time to mould or the maternal structures time to relax, we put such a pressure upon the head that, if the child is not still-born, it dies soon after birth. In Dr. Johnston's 7862 cases there were 58 cases of maternal death. That is an important number that I shall have to refer to again. I must make one observation as to the total number of still-births. The number was never added up during his mastership, except in the first three years; and then it was found that the death-rate was about 6.10 per cent.; and I have calculated the entire number of seven years at that rate, which would bring the total number of still-births to 468. Having given the numbers in each case, I will compare the rates. In the total deliveries at the Rotunda Hospital under Dr. Johnston, the forceps were used in 1 case in 10; in my own practice in 1 case in 117; in Dr. Collins's practice, at the Rotunda, 1 in 608. The rate of foetal deaths in forceps cases is—Dr. Johnston, Rotunda, 1 in 14; Dr. Roper, 1 in 4 $\frac{1}{2}$; Dr. Collins, 1 in 3. There is a seeming advantage in favour of Dr. Johnston; but then we must remember that he used the forceps in a large number of easy cases, and therefore the children ought to be born alive. My own cases were very difficult ones, and so were Dr. Collins's; therefore this series of cases may stand for nothing. In my own 300 cases there was hardly a still-birth, one being that of a syphilitic child. Then these children were all living children, and of vertex presentations. That is a process that must go on *ad infinitum* under such circumstances; but when we have a residuum of difficult cases the things are not comparable. As to the rate of maternal deaths, Dr. Johnston's is about 1 in 13, Dr. Roper's 1 in 40, Dr. Collins's 1 in 6. Dr. Collins's rate was, of course, large, because he allowed the women to drift on to difficult labour. The rate of craniotomy or cephalotripsy cases is—Dr. Johnston about 1 in 281, Dr. Collins 1 in 208, Dr. Roper 1 in 722. The rate of deaths in craniotomy or cephalotripsy was not large. The next two series of cases are the most important of all. First, the rate of total still-births in total deliveries. In estimating these cases we must take the entire number, and not choose classes of cases. Dr. Johnston loses 1 child in 17, Dr. Roper 1 in 31, Dr. Collins 1 in 15. Now, if we take the 60 cases that were born dead under the use of the forceps in Dr. Johnston's practice, we shall find that will reduce his infantile mortality to pretty nearly the same rate as Dr. Collins's. The next series is a very important one indeed, and I call it something dreadful—the rate of maternal deaths from all causes to total deliveries. Dr. Johnston loses 1 woman in 47, Dr. Roper 1 in 293, Dr. Collins 1 in 100. Now, it may be said that there is an excuse for this amount of mortality in the practice of Dr. Johnston, who loses six mothers to my one, because mine is an external charity, and his is an internal charity. But that does not apply to Dr. Johnston's cases more than to Dr. Collins's, because they occurred in the same charity—the Rotunda Hospital. There is, however, this difference, that under the mastership of Dr. Collins 16,000 women were delivered; while in Dr. Johnston's time only 8000 were delivered; so that, taking it for granted that the building is the same, it must have been very much overcrowded in Dr. Collins's time, and not in Dr. Johnston's. Moreover, Dr. Collins had an epidemic or endemic attack of puerperal fever, in which he lost 58 patients, whereas Dr. Johnston had no such epidemic. Dr. Johnston endeavours to account for his high mortality by the fact of the women going into the hospital from districts that were affected by zymotic diseases. But it does not appear that the women died of zymotic diseases. They died of the ordinary puerperal diseases to which women are subject. On the other hand, the patients of the Eastern Division of the Royal Maternity Charity live in the courts, alleys, and narrow streets of Spitalfields, Shoreditch, Whitechapel, Bethnal-green, etc., where there are always some of these zymotic diseases prevailing. I hardly ever go into a house there without finding some zymotic disease; and that is where these women are confined. I do not see, then, how we can say that the rate of mortality is diminished by the use of the forceps; on the contrary, I think it is much increased. The first thing that would strike one is, that the mortality was increased by the frequent use of the forceps in the first stage. But, singularly enough, that is not so; for in the 752 cases recorded, the death-rate was 1 in 13; and in the 169 cases where the os uteri was two-fifths, three-fifths, or four-fifths dilated, there were only 9 deaths, or

1 in 19; so that the deaths where the forceps were applied in the first stage of labour are not so numerous as where the forceps were applied in the second stage. Dr. Johnston states that he never uses the forceps unless there is imminent danger to the mother or child, and that he always used them to prevent sloughing. He says, at page 13 of his own report, that there were eight cases of sloughing of the perineum, and that he did not allow labour to be prolonged so far as to produce any of the symptoms indicative of vaginal inflammation, considering it to be safer to interfere before such should appear. I can only say that I have attended twelve thousand cases, and I have not seen a case of sloughing; and Dr. Collins, who has attended sixteen thousand cases, has only seen one case of sloughing. I feel that it is unnecessary for me to compliment Dr. Barnes on the able manner in which he has brought this important subject before the Society; nor can I conclude my remarks without expressing my thanks to Dr. George Johnston for the publication of his practice and its results, and in this I believe every fellow of the Society will join me. I can, however, only regard his practice as a great experiment, carried out with a view to demonstrate that the frequent use of the forceps tends to save both foetal and maternal life in child-birth; but in its results the experiment has failed to prove that it has this fortunate tendency.

Dr. BRAXTON HICKS: I should not have risen to speak on this subject had not our *Alma Mater* called upon us individually to express our opinion upon it; the more so as I have already written some remarks which will be found in the *Transactions of the Obstetrical Society* in 1867, on the condition of the uterus in obstructed labour, and an inquiry into what is intended by the terms "cessation of labour pains," "powerless labour," and "exhaustion"; and there is also a lecture of mine published in the *Medical Times and Gazette* five or six years ago, putting the matter more simply for the benefit of my students. We may look upon these matters from two points of view. There is first the general practitioner's view, the view of those who attend upon ordinary labour cases; and then there is the view of those who are not called in until after a labour has progressed for a long time. If we look at these cases in our own particular way, we who are called in consultation are apt perhaps to overrate the numerical frequency of the severe cases, while others are perhaps a little inclined to underrate them. It is by bringing us together and hearing our different opinions that something like a reasonable conclusion can be arrived at. I think it will be the better plan to take the line which is indicated in the *précis* for our argument or discussion. I will first refer to other two alternatives, chloroform and turning. It sometimes happens, when a woman must be delivered, and we have no instrument at hand, that turning is efficacious and successful. With regard to chloroform, it will appear, from what I am going to say, how far it will assist and be a real alternative. There are two questions asked. One of these is, Does lingering labour occur so as to entail danger to the mother and child during the first stage of labour? I would simply answer, Yes, unquestionably. I have seen a considerable number of women—more than I should like to see again—who have been sacrificed because the foetus has been held *in utero*; there has been trismus in the uterus, and the foetus has been held in, when the woman might have been delivered with facility. Then is the application of the forceps necessary or useful before dilatation of the cervix? Certainly. *How often* is a matter of further consideration, but that there is a necessity sometimes cannot be doubted. Cases rise before my mind which are examples of this, but I will only answer the question in the affirmative. If I could not have answered it in the affirmative, I could not have gone into the discussion of the other propositions, the second and the third. I take those first because they embrace simpler conditions, and the others will almost be answered by the time I have finished the second and third. We have two propositions put into one. "In lingering labour when the head is above, or engaged in the pelvic brim, and when it is known that the pelvis is well formed, the forceps is better than its alternatives." It is impossible to discuss a question like this without going more specifically into the causations of lingering labour. I have been forestalled by what has been said by Dr. Roper; or rather I have forestalled him, because in the publication to which I have referred you will see the whole thing stated. There are two typical, opposite

conditions of labour. Before we discuss them it will be better to inquire what are the difficulties in the first stage of labour, and where they lie. They are very few indeed. There is inertia of the uterus, and there is the over-action or trismus of the uterus, and there are intermediate conditions between these. Then there is spasm of the lower segment of the uterus almost akin to the other, and of the os uteri. Then we have slight obliquities of the uterus which interfere with the progress of the child. Then sometimes the child gets a little doubled up, and cannot descend; the uterus does not act upon it sufficiently. Sometimes we have a toughness of the membranes as a cause of detention. When we know what is likely to occur in the first stage, limited as we are to the uterus in this discussion, we can pretty clearly argue on the whole matter. First, we have the condition of the uterus as a motor power. There is a deficient action, a slow opening of the os uteri, long intervals (perhaps many hours) between the actions of the uterus; the liquor amnii may or may not be discharged; it had better not be discharged in more prolonged cases. Now, as long as cases go on like that, we shall, I think, all agree that there is no reason for any interference. If you do interfere, you may have an atonic uterus after delivery, non-expulsion of the placenta, and perhaps post-partum hæmorrhage. In these cases length of time is not of the smallest consequence. As I have pointed out in my paper, it is important to understand that death is not likely to occur in a woman from simple detention in the first stage, so long as the pulse is not rising. The only condition in which we might make an exception is where the fœtus has been already dead before labour has set in, and the liquor amnii has escaped; the fœtus then decomposes, and the patient gets into a septicæmic condition, which may go on, without expulsive pains, to death. But that is a very rare condition. Of course there is the case of lesion of the uterus, but we are not permitted to discuss that now. In the cases to which I have referred we need not go about in fear and dread that the patient will die of exhaustion. I have never seen it, and do not think anybody else has. As to the opposite condition of trismus, I have related the symptoms of it in my paper. The uterus is tightly round the child; there is no flaccidity about it; there is no dulness outside the foetal shape; the fœtus is fixed, you cannot move it about. It is a thing to be easily made out if you are careful in examination, and not too much in a hurry to take your hand off the uterus. It is very important to recognise the first stage of this, because it is upon the arrival of the first stage that we are stimulated to act. When the uterus takes this particular form of action, it is very seldom that you get the fœtus expelled by natural efforts. These cases are not so uncommon as you may suppose. They show themselves not so much in the first as in the second stage. It is in the second stage, I believe, that the difficulties of the first stage accumulate, and which might be avoided. The uterus begins to be continuously contracted between the pains; the pains do not go off, and the contraction passes into the interval. When that begins, the time for action has arrived. It is possible that by the use of a little chloroform (not too much, or there will be no action from behind) you may ease the contraction, or you may by small doses of opium frequently repeated get that state of irritability to subside. Or you might try the milder alternative of expression. Certainly, as a general rule, you would not use the alternative of ergot. If you begin to use ergot in the early stages when the os uteri happens to be a little tight, and the uterus not prepared for the expulsion of the child's head, you will have this irritable condition brought on by the action of the ergot; and there is nothing more dangerous. I have been called in to numerous cases in which ergot has been given because the practitioner has not distinguished between the total inertia and this continuous contraction which is going on, accompanied by mild and feeble pains. As soon as the pains begin to run into the interval (that is the important point), then it is that you find the pulse begins to rise. I have watched these cases very carefully for a long period, and I can emphasise what I said in my original paper, that I have seen no exception to that rule. As soon as this contraction begins to occur the pulse begins to go up, and you have nerve-irritation and exhaustion from the long continuance of the trismus condition; you have what is called powerless labour or exhaustion. It is not powerless labour; it is the contrary, it is an over-active condition.

The uterus gradually gets into a continuous contraction until it becomes so hard and rigid that you cannot make the smallest impression upon it. I have seen cases where the uterus has been as tight as if it had been made of papier-maché, so solid and so unyielding in its contraction. That is an extreme form that will come on sooner or later if the woman is not delivered after the symptoms of powerless labour commence. It is a state of nervous exhaustion—Dr. Roper, I think bears me out in that,—it is not the crushing or bruising of the parts by the pressure of the child's head that produces that condition; it is nervous irritation and exhaustion. I cannot explain it, but I can say that as soon as a woman in this condition is delivered, if she has not gone beyond a certain point, the condition begins to cease, and in a couple of hours it is all gone. If there had been any bruising or sloughing, of course that would not occur. I have watched these cases carefully, and am perfectly assured that the condition ceases very quickly after the source of irritation is removed. If the patient goes into the highest degree of trismus she will generally die; our object is to prevent that condition. It is important that the symptoms should be recognised early. Sometimes you find that the water has drained off slowly. The uterus gradually gets irritated, and the pains hardly begin at all. That, no doubt, is a very treacherous sort of case. As soon as the condition I have referred to comes on, traction must be adopted, unless, by giving chloroform or small doses of laudanum, you can produce relaxation, and so get rid of the trouble. You may get the condition sometimes when the os uteri is open, and sometimes when it is contracted. If it is an open os uteri the condition is very simple: the forceps will go in readily, and draw the fœtus out of the grip of the uterus. We can easily see that if the uterus is gripping the child it must be exposed to great danger, and the sooner we get it out the better for the child. Statistics or no statistics, that is as plain as possible. But when we get the os uteri and the lower part of the cervix rigidly contracted, then the difficult question arises how far we should interfere. Now, supposing this is not a case in which we have mistaken this condition for the ordinary prolonged first stage of labour—which it sometimes is; suppose that it is a case in which we must begin to act. Where there is a cicatrix sometimes the hydrostatic bags of Dr. Barnes may be used with very great effect. I have sometimes seen a case which, in one labour, has been three days without any dilatation, and it has only taken two or three hours in the next to get over it with the greatest ease and safety. But where there is no cicatrix, and there is only spasmodic rigidity of the uterus, so that it will not relax physiologically, then what are we to do? Some may say, Why not craniotomy? Is craniotomy, after all, such an easy operation under such circumstances? Is it less dangerous than the forceps? I maintain that it is more dangerous than the forceps. The only danger of the forceps is that you cannot get them in, or that, having got them in, in locking you may stretch the os uteri like a skein of thread on the top of the finger. There is great anxiety and danger; yet if it is done carefully it is permissible. You see, we must do something. It is no use talking of the dreadful things that may arise from the use of the forceps; we must face the danger. Then we have to draw it out very slowly. Dr. Lever has invented a pair of forceps in which the shanks come so closely together that they almost touch one another, rather inconveniently sometimes; but when it was on the child's head it scarcely stretched the os uteri at all. When you bring down the rotundity of the child's head into the os uteri you have a very good dilator. What do you ask the forceps to do? No more than you ask the uterus to do. The uterus must push it out. The forceps does no more than the uterus was asked to do by expectancy. If, instead of dragging the uterus down with violence, you pull it down gently, supplementing each pain, you can dilate as gently as possible; and when the rotundity of the child's head comes in you find there is no great difficulty. I never met with any great difficulty except where the os uteri was stretched like a skein of thread round the widespread shanks of the instrument. I had a case of a lady in a condition requiring help. The os uteri was about the size of a five-shilling piece, slightly dilatable, and the head was coming down and occupying it pretty well, distending the cervix. When I was asked to see her, before passing the forceps I fortunately examined her, and I found the os uteri perfect for an inch upwards, but there was a large slight extending upwards on the side in the neighbourhood

of the broad ligament, going as far as I could reach, the head occupying the rest. I reckoned that the head at the equator had passed the major part of the rent. The question was whether I should perforate or drag the whole down to the margin. With the forceps I carefully drew down the child's head; it did not rupture the parts. The child was born alive, and is still living. The mother had not a single symptom indicating that there was any mischief. If I had not examined the patient beforehand, and if it had been found that she had laceration, it would have been put down to the forceps. In Dr. Roper's cases it will be found that there are some cases of spontaneous laceration of the cervix uteri narrated. You must not put down to the forceps everything occurring in that way. We are to face the difficulty, and face it in the best way we can. The numerical proportion in Dr. Johnston's cases certainly does not accord with my practice. Perhaps I have not had such difficult cases to contend with, nor such irritable patients as the Irish. The Celtic nervous system is much more irritable than the Saxon, and we ought to take that into account in considering these cases. In the Celtic tribes the uterus quickly falls into a state of irritation, far more so than is the case with English women; so that Dr. Johnston may have had difficulties that we have not had to contend with. I have answered the major part of the *first* question in the remarks I have already made. The lower the head comes down, the more quickly will the uterus get into a state of irritation whenever arrest takes place. In the second stage, when the head is in the cavity of the pelvis, and the uterus is a little inactive, I have used ergot without fear, because, with the forceps by my side, if I find that the uterus is not equal to deliver, I can supplement its efforts by the forceps. This is the problem: Suppose that a woman can deliver herself in twelve hours. The uterus is well aroused, so that no consequences of inertia will occur afterwards; is it better to relieve her at once, or within two or three hours, or to let her go on for the whole twelve hours? Is it any advantage to let her go on in that condition? There is one advantage in primiparae, that the parts are more slowly dilated, and the head is more slowly moulded; but in a general way, supposing the uterus to be at work, and the pains at the maximum, and an obstacle takes place, if we know that by a little traction we can bring the child out quickly, I must say I think it is beneficial both to the child and the mother, certainly to the child, to abstract it gently and quietly. It is doing no more than you ask the uterus to do, and than the uterus will have to do sooner or later, when it is well roused. But to empty the uterus, or draw out the child—to haul it forth, as Dr. Blundell used to say—when the uterus is not responsive, is one of the most critical things a man can do. Gentlemen often fall into error in this matter. One gentleman told me that he always drew out the child directly he saw any little difficulty in the way. I said, "Do not you have any flooding?" "No," he said, "I do not." It puzzled me to know how he had escaped it. Afterwards he told me that he had had a case of flooding, and it was a lesson to him not to do as he had done before. That was a case of inertia, not a condition where the uterus was in full action. I think, then, we may assent to the fourth proposition of Dr. Barnes. It is almost self-evident that "in proportion as the head is arrested high in the pelvis, in the brim or above the brim, the necessity, the utility, and the safety of the forceps become less frequent," and, "as a corollary from the preceding propositions, increasing caution in determining on the use of the forceps, and greater skill in carrying out the operation, are called for."

(To be continued.)

EFFECTS OF THE ELECTRIC LIGHT ON VISION.—A series of researches, recently pursued by Prof. Cohn, of the Breslau University, has led to some important conclusions. The recognition of letters, points, and, above all, colours, takes place at much greater distances in electric light than in either gas or daylight. The perception of yellow is multiplied sixty-fold, that of red six-fold, and green and blue are each doubled in perceptibility. The letters of Snellen's types are increased from 1 to 1.2 and 1.5, and Burchardt's points from 1 to 2; while eyes that have the colour sense weak and acuteness of vision but slight in gas and daylight, undergo varying improvement in the electric light.—*St. Petersburg Med. Woch.*, June 21.

OBITUARY.

CHARLES FREDERICK MAUNDER, F.R.C.S. Eng.

WE have again, to our great regret, to record the sudden and early death of a distinguished and well-known metropolitan member of the profession. Mr. C. F. Maunder, one of the Surgeons of the London Hospital, died suddenly on July 4, at the age of forty-seven.

After receiving his general education at Totteridge School (then under the management of Mr. J. C. Thorowgood), Charles Maunder was articled to the late Mr. J. G. Lansdowne, Surgeon to the Bristol Infirmary; and during his pupillage he successfully competed for the prize awarded by the Medical Society of the Bristol Infirmary, in 1851, for an essay on "Primary Venereal Sores, the Possible Sources of Error in Diagnosis, and the Evil Consequences of such Error." He afterwards became a student at Guy's Hospital, and was author of the prize essay on "Injuries of the Head," awarded by the Guy's Hospital Physical Society, in 1854; and in the same year became a member of the English College of Surgeons. He was for a time Demonstrator of Anatomy of Guy's Hospital; and his love for the department of the profession which he had chosen led him to study surgery in Edinburgh, to study and aid in teaching anatomy and surgery in Paris, and to serve as Civil Assistant-Surgeon at Renkioi Hospital and in the field during the Crimean War. In 1857 he became Fellow of the College of Surgeons; and, after holding some other surgical appointments, he was elected in 1860 one of the Assistant-Surgeons, and in 1869 one of the Surgeons, to the London Hospital. Mr. Maunder wrote a valuable text-book of "Operative Surgery" for students; translated and edited Ricord's "Lectures on Chancre"; was Lettsomian Lecturer of the Medical Society of London in 1875; and published his Lectures on "The Surgery of the Arteries"; wrote on "Abscission of the Lower Jaw without External Wound," and on "Strangulated Hernia"; was author of the article on "Intestinal Obstructions" in the new edition of "Cooper's Surgical Dictionary"; and was a frequent contributor to the medical journals. Our own columns contained, in 1874, a paper by him describing a "New Operation for Exostosis"; and he introduced to British surgery the use of the chisel in subcutaneous osteotomy.

For about a year before his death Mr. Maunder had suffered from irritability and vague nervous symptoms, and all these were aggravated by the news of the failure of the West of England Bank, in which he held shares, left to him by his father. Warned by Sir William Gull, Dr. Sutton, Mr. Richard Davy, and other professional friends, of the necessity of rest and change, he obtained in May leave of absence from his hospital duties; and, having already benefited to some extent, was contemplating making a tour in the South-West of England, when he died suddenly at Crouch End on the 4th inst. Mr. Maunder was an enthusiastic and able surgeon, and a brilliant operator; was singularly genial and frank in character and expression; and many will mourn for the loss in him of a hearty, true, and trusty friend.

TREATMENT OF ULCERS OF THE LEG.—At the New York Hospital the most successful treatment of ulcers has proved to be a combination of Lister's method and Martin's elastic bandage. The ulcer is first washed with a 20 per cent. solution of carbolic acid, and then covered with a piece of the "protective" oiled silk, over which are placed one or two longer layers of lint or felted paper, which have been previously dipped in a saturated solution of boracic acid. The whole is then covered with an elastic bandage, which is only changed when it becomes soiled by the discharge. Occasionally it is found better to take off the elastic bandage at night, but not the other dressing, which is then covered with a piece of impermeable tissue (such as thin gutta-percha or waxed paper), secured *in situ* by an ordinary bandage. In sloughy ulcers a layer of iodoform is put over the surface before applying the "protective." The rapidity of cure by this combination has been found to be much greater than when either the Lister dressing or the rubber bandage is used alone.—*New York Med. Jour.*, May.

NEW INVENTIONS AND IMPROVEMENTS.

PURE THYMOL SOAP.

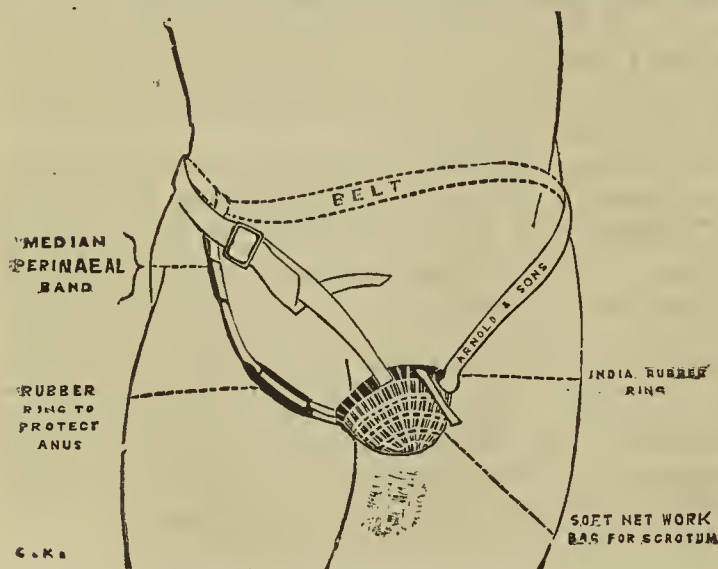
WE have received from Messrs. Richardson and Co., of Leicester, a sample of a new antiseptic soap, prepared with thymol instead of carbolic or salicylic acid. So soon as thymol was discovered to be a powerful, very manageable, and pleasant-smelling antiseptic, it was inevitable that it would be employed in the manufacture of medicated, and toilet soaps; and we have wondered that so many months passed before we were called upon to judge a thymol soap. That now sent to us well merits a trial. It is an agreeable, good soap, and has the refreshing, fragrant perfume of the wild thyme. According to all that has been said of the properties of thymol, thymol soap ought to be as effective as carbolic acid soap, and it is certainly very much more pleasant.

PACKER'S TAR SOAP.

THE value of pure tar, in various forms, as an application in the local treatment of certain diseases of the skin, has long been established; and Packer's tar soap may be safely recommended. It is perhaps a little too soft, so that it wastes easily; but it is smoothly and uniformly compounded, well made; and has the pleasant fragrance of fresh pure tar.

KEETLEY'S SUSPENSORY BANDAGE.

THE common suspensory bandage has been accused of having these disadvantages—(1) If it is not fitted with a perineal band, the genital organs are pulled so far forwards as to cause an unsightly prominence beneath the trousers; (2) if it has the ordinary perineal band the anus gets chafed; (3) the tape in the hem round the margin of the bag chafes and cuts; (4) the perforations in the material of the bag are too fine for ventilation, consequently the bag becomes soaked with perspiration; (5) the hole for the penis is unnecessary, and only serves to let one testicle occasionally herniate through it. Mr. Charles B. Keetley, F.R.C.S., Assistant-Surgeon to the West London Hospital, has therefore contrived a form of suspensory bandage to obviate the above



objections. A median perineal band holds the genitalia well back. An indiarubber ring in this band prevents it from chafing the anus, and the anus from soiling it. Another indiarubber ring takes the place of the piece of tape above referred to. The bag is hand-made, knitted, and very open in its network; and the penis is simply allowed to hang over the front of the bag. The contrivance has been freely tried in cases of gonorrhœa, orchitis, varicocele, relaxed condition of the genitalia attended by hypochondriasis, and in other affections of those parts, and found to answer perfectly.

Messrs. Arnold and Sons, of West Smithfield, make the appliance in three sizes, at the price of the old bandage.

CONVULSIONS OF CHILDREN.—Dr. Jules Simon recommends the following enema when the infant cannot be got to swallow, preceding it by an ordinary enema:—Musk, 20 centigrammes; camphor, 1 gramme; hydrate of chloral, half a gramme; the yolk of one egg; and 150 grammes of water. The child should also inhale ether, and be placed in a mustard warm bath until the skin begins to redden.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 3:—

Cheesman, George Edward Alexander, Southampton.
Pryce, Evan William, The Farm, Montgomery.
Raine, Arthur Robert, Billericay, Essex.
Walford, Robert, Harrington-street, N.W.

The following gentleman also on the same day passed his Primary Professional Examination:—

Hart, Robert Alfred Hellings, Guy's Hospital.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

PRICKETT, MARMADUKE, M.A., M.D., M.R.C.S.—Physician to the Out-patient Department of the Samaritan Free Hospital for Women, Lower Seymour-street, *vice* W. H. Day, M.D., resigned.

BIRTHS.

EUSTACE.—On May 28, at Fortress Gwalior, Bengal, the wife of Edward Eustace, L.R.C.P. Edin., Surgeon-Major, prematurely, of a son.

KIDD.—On July 4, at Brooklands, Blackheath-park, the wife of Joseph Kidd, M.D., of a son.

MACTIER.—On June 29, at Kinnessburn, St. Andrews, Fife, the wife of W. F. Mactier, M.D., late Bengal Service, of a daughter.

ROBERTS.—On June 30, at Ruabon, the wife of Richard Lawton Roberts, M.D., of a son.

MARRIAGES.

BIRKETT-WHIPPLE.—On April 26, at Newcastle, Natal, S.A., Francis J. Birkett, of Craig, Estcourt, eldest son of John Birkett, F.R.C.S., of 59, Green-street, W., to Sarah A., eldest daughter of John Whipple, Esq., of Newcastle.

COLLIER-HUXLEY.—On June 30, at St. Mark's Church, Hamilton-terrace, N.W., John, second son of the Right Hon. Sir Robert Collier, to Marian, second daughter of Professor Huxley, F.R.S.

DALE-MCCLEARY.—On June 8, at Camden New Town, Henry Ridley Dale, M.R.C.S.E., L.R.C.P. Ed., of Cousin Street, Sunderland, to Rose, daughter of the late late James McCleary, C.E., of Rochester-square, Camden-road, London.

HUMPHRY-SIMPSON.—On July 3, at Kensington, Reginald Humphry, L.R.C.P. Edin., M.R.C.S. Eng., of Wilborough-green, Sussex, to Emma, eldest daughter of the late Henry Simpson, Esq.

LAMMIMAN-WEARE.—On July 2, at Tunbridge Wells, Cleland Lammiman, M.R.C.S. Eng., L.R.C.P. Lond., only son of R. W. Lammiman, M.R.C.S. Eng., of London, to Katherine, third daughter of John Smith Weare, Esq., of Ferndale Park, Tunbridge Wells.

SUTTON-MOXHAY.—On July 9, at Reading, John Sutton, of Southcote Farm, to Mary Ellen, second daughter of W. W. Moxhay, M.R.C.S. Eng., of Reading.

SWORDER-KEESHAW.—On July 3, at Luton, Horace Sworder, L.R.C.P. Lond., M.R.C.S., L.S.A., to Caroline, eldest daughter of J. J. Kershaw, Esq., of Bedford Villa, Luton.

WRIGHT-TIMSON.—On July 2, at Cheltenham, Edward Arthur Wright, M.B., of Huddersfield, to Eleanor Jane Guion, youngest daughter of the late George Timson, Esq., The Cleavelands, Cheltenham.

DEATHS.

BLOMFIELD, JOSIAH, eldest son of Josiah Blomfield, M.D., of Rye-lane, Peckham, on July 2, in his 20th year.

CUFARDE, ANNIE, wife of W. H. Cufarde, M.R.C.S. Eng., of Acle, at Great Yarmouth, on June 30, aged 28.

HEELIS, ELLEN ISABELLA, eldest daughter of Robert Heelis, M.R.C.S. Eng., of West Brighton, on June 25.

HURD, JAMES, M.D., at West Lodge, Froome, Selwood, on July 1, aged 72.
LEACROFT, CHARLOTTE ELIZABETH, wife of J. W. Leacroft, M.B., at Feckenham, Redditch, Worcestershire, on June 27.

MAUNDER, CHARLES FREDERICK, F.R.C.S., Surgeon to the London Hospital, and late of 16, Queen Anne-street, Cavandish-square, W., on July 4, aged 47.

SMALL, JOHN, L.R.C.S. Ed., Deputy Surgeon-General, at 7, Yorke-Crescent, The Common, Woolwich, on July 2, aged 55.

WOOD, ANDREW, M.R.C.S., sometime Bengal Artillery, late Superintendent Surgeon of the Punjab, at Albany-street, Edinburgh, on July 7, aged 83.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

GATESHEAD DISPENSARY.—Assistant-Surgeon. Candidates must possess a double qualification. Applications, with testimonials, to Mr. Joseph Jordon, not later than July 17.

WILTS COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be unmarried, duly qualified, and registered. Applications, stating age, and accompanied by not more than six recent testimonials, to Dr. Cooke, Wilts County Lunatic Asylum, Devizes, on or before July 23.

NORTHUMBERLAND COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be unmarried, duly qualified, and registered. Applications, with testimonials, stating age, to Dr. T. W. M'Dowall, at the Asylum, Morpeth, on or before July 17.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Crediton Union.—Mr. Wm. Deans has resigned the Sandford District; area 11,040; population 2003; salary £35 per annum. Dr. Ryley has resigned the Cheriton Fitzpaine District; area 10,930; population 1759; salary £45 per annum.

Maidstone Union.—Dr. J. W. Bury has resigned the Sixth District; area 7607; population 2333; salary £67 per annum.

Woodstock Union.—Mr. F. Stockwell has resigned the First District; area 4683; population 2483; salary £40 per annum.

APPOINTMENTS.

Boston Union.—Edward B. Reckitt, L.R.C.P. Edin., L.R.C.S. Edin., to the Boston District and the Workhouse.

Edmonton Union.—Wm. W. Day, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., to the First District and the Workhouse.

Nuneaton Union.—Henry T. Tomlinson, L.R.C.P. Edin., L.R.C.S. Edin., to the Chilvers Coton District.

Tenby.—Wm. Morgan, F.C.S., as Analyst for the Borough.

REDUCTION OF OLD DISLOCATION OF THE ASTRAGALUS.

—Mr. Fitzgerald related to the Medical Society of Victoria, the case of a man, aged twenty-nine, who, five months prior to his admission to the hospital, had twisted his foot and dislocated the astragalus. The patient having been brought under the influence of chloroform, the tendo Achillis was first divided, and the tendon of the tibialis anticus being found in a tense state, and helping to wedge in the head of the astragalus, it was also divided. A long tenotome was then slid obliquely from about an inch in front and below the internal malleolus into the ankle-joint; and all the attachments between the tibia and astragalus were freely divided, including some unbroken fibres of the anterior annular ligament. The knife was now carefully withdrawn, and re-inserted just over the front of the internal cuneiform bone, pushed obliquely backwards, and made to divide freely all the attachments between the scaphoid and bulging head of the astragalus; the blade being then carefully withdrawn, so as not to allow the entrance of air into the large cavity thus formed. Extension was now made with the foot, in the extremely extended position, and firm pressure backwards made on the astragalus. Suddenly the foot forcibly flexed on the leg, and the astragalus slipped into its normal position. The limb was bandaged to the knee, and the foot placed at right angles with the leg. The patient went on very well, so that in three months the movements of his ankle-joint were pretty free, and he could walk moderately well. Mr. Fitzgerald stated that no case was on record in which reduction had been effected after the third month.—*Australian Med. Gaz.*, April.

A NEW PREPARATION OF QUININE SOLUBLE IN WATER.

—In the *Centralblatt f. d. Med. Wiss.*, June 14, Dr. Jaffe, of the Hamburg General Hospital, reports the results of the trials which he has made of a new preparation of quinine termed *quinia bimuriatica carbamidata*, formed by Drygin from a combination of twenty parts of muriate of quinia, twelve of muriatic acid, and three parts of urea. The resulting salt is soluble in equal parts of water, and is therefore eminently suitable for the administration of large doses of quinine by the hypodermic method. The trials that have been made of it at Hamburg have proved so successful that it is highly desirable it should be more widely known. A 50 per cent. solution has always been employed, so that a Pravaz syringe full (holding one gramme) will contain a third of a gramme of the salt. The quantity injected varied from a half to three syringes full. The local irritation consequent on the injection was in most cases very slight, and at most consisted in a circumscribed burning pain (which was soon relieved by cold Goulard water), without redness or swelling. Doses of a gramme produced in men scarcely any subjective sensations, and the noises in the ear complained of by women and children soon disappeared. The antifebrile effects were evident and certain, intermittents disappearing after the second or third injection. This form of administration seems especially indicated (1) in those sensitive persons who have an invincible objection to taking quinine by the mouth; (2) when gastric affections co-exist; (3) in children; and (4) in hospital and pauper practice, as a much smaller quantity of quinine is required than when it is administered internally.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.—Sir Trevor Lawrence, in expressing to the Secretary of this Association his sense of the honour done him in electing him their President, says:—"I do not think I need enlarge upon my attachment to the medical profession; nor need I assure the Association that, at all times, my anxious desire will be to promote the interests of the profession in any way in my power."

COLLEGIATE EXAMINATIONS.—The following were the questions in anatomy and physiology submitted to the candidates at the primary examination for the diploma of membership of the Royal College of Surgeons at the written examination on the 7th inst., when they were required to answer at least four, including one of the first two, out of the six questions, viz.:—1. Describe the mechanism of one act of tranquil respiration. What muscles and nerves are concerned in it? What would be the effect of division of the nerves concerned, and of stimulation of their cut ends? 2. What is the nature of the fluids termed, respectively, lymph, chyme, and chyle? Describe the course of the fluid absorbed by the villi of the small intestines, and the changes it undergoes during its passage to the blood. Give an account of the structure of a lymphatic gland. 3. Describe the first cervical vertebra, including the joints it helps to form and the ligaments which connect them. What muscles are attached to it? 4. Give the course, relations, and branches of the lingual artery. 5. What dissection is required to expose the external surface of the obturator membrane? 6. Describe the cardiac and pyloric orifices of the stomach, the ileo-cæcal valve, and the anus. Explain the muscular and nervous mechanisms by which they are respectively regulated.

IODINE IN INTERMITTENT FEVERS.—Dr. Wadsworth states that his experience, first in Texas, and then at Saltillo, Mexico, enables him fully to confirm the statement made some years ago by Dr. Willibrand, in Virchow's *Archiv* (Band xlvii.), that in iodine we possess a specific remedy for malarial disease, equal to cinchona, and in one respect superior, since fewer relapses occur under its employment. In the present paper, Dr. Wadsworth especially refers to an epidemic that occurred at Saltillo last autumn, and which comprised every type of intermittent fever. Quinine rose so much in price that it was retailed at 6d. a grain, and was therefore quite out of the reach of the poor, who are very numerous. During the four months from October to January, he treated more than 300 cases, keeping records of 260 of these. In severe cases from ten to fifteen grains of quinine, in two doses, were generally given during the apyrexia, and were immediately followed by the compound tincture of iodine, in doses of ten to fifteen minims twice daily. In the severest cases the following formula was used:—℞. Liq. pot. arsenit. ʒ j., tinct. iod. co. ʒ ij., tinct. serpentar., syrup simp. aa ʒ iss., aqua ad ʒ vi.; a tablespoonful thrice daily, after meals. In every case the paroxysm was arrested within twenty-four hours, and the twelve doses, lasting four days, were sufficient to guarantee the cure, with the exception of eight relapses. In not a single instance, though under the most miserable hygienic surroundings, did there occur a single failure to effect an immediate cure when the medicine was taken as directed. "Quinine and arsenic have often failed the writer, but iodine never. Nevertheless, owing to the malignancy of the fever, the poverty of the patients, and the necessity of prompt cure, it was thought prudent to make assurance doubly sure by reinforcing the iodine with a drachm of Fowler's solution in the severest cases."—*New York Med. Jour.*, May.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

* * The name of Mr. G. Hill Smith, of Stevenage, was unfortunately not sent to us in time to be inserted in our short note of the provincial Fellows who voted at the annual election of members of the Council of the College of Surgeons. But we never have pretended to give, nor can we possibly find space for, anything like a list of those who attend.

A Metropolitan Teacher.—The following members of the Council of the Royal College of Surgeons are members of the Court of Examiners, viz.:—Messrs. Holden, President; Erichsen, Vice-President; Curling, Le Gros Clark, Birkett, Humphry, Marshall, Savory, and Holmes. The following gentlemen, now on the Council, are members of the Board of Examiners, viz.:—Messrs. Holden (*vice* Holmes, resigned), Wood, and Power.

A Fellow.—Every Fellow of the College who is elected a member of the Council of the Royal College of Surgeons has to pay a fee of twenty guineas on his admission as such. The honorarium he receives is one guinea at each meeting.

THE CASE OF THOMAS MILLERCHIP.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The undermentioned subscribers to this fund have requested an acknowledgment in the *Medical Times and Gazette*:—

	£	s.	d.
Mr. Packman, Sheffield ..	...	0	10 6
Mr. Lorking, Hull ..	...	1	1 0
N. D., Philadelphia ..	...	0	5 0
Mr. Gibson, Hull ..	...	0	10 0
Dr. Webster, St. George's ..	...	0	10 6
R. Cremer, Norwich ..	...	0	10 0
G. E. Jeafferson, Framlingham ..	...	1	1 0
S. Harding, W. Haddington ..	...	0	5 0
Dr. Walmworth, Newport ..	...	0	10 0
J. H. Hughes, Droitwich ..	...	0	10 0
R. P. Weston, Wellington, Salop ..	...	0	5 0
Dr. W. Aspinall, Lancaster ..	...	0	10 0
C. W. Chubb, Torpoint, Cornwall ..	...	0	10 0
33, Dean-street, July 9.	I am, &c.,	JOSEPH ROGERS.	

COMMUNICATIONS have been received from—
Dr. SPARKS, Crewkerne; Mr. J. T. BURGESS, Spilsby; Mr. ERNEST BIRT, Wakefield; Mr. H. S. SNELL, London; Dr. WARD COUSINS, Portsmouth; Mr. FURNIAUX JORDAN, Birmingham; Mr. GEORGE JAMES FORRESTER, Durham; Dr. J. W. GILLESPIE, London; Dr. RICHARD CATON, Liverpool; THE REGISTRAR OF APOTHECARIES' HALL, London; Mr. G. HILL SMITH, Stevenage; Dr. JOHN WYMAN, London; Dr. ROBERT DRUITT, London; Dr. SEMPLE, London; Dr. G. E. HERMAN, London; Dr. J. W. MOORE, Dublin; Dr. A. E. SANSON, London; Mr. J. J. RIDGE, Enfield; Dr. JOHN WILLIAMS, London; Mr. J. W. BAMFORD, Rochdale; Surgeon-Major W. T. BLACK, Edinburgh; Mr. HENRY DOBBIN, Brompton; Mr. RICHARD DAVY, London; THE REGISTRAR-GENERAL, Edinburgh; Dr. ROBERTSON, Brixton; THE SECRETARY OF THE ROYAL INSTITUTION; Mr. A. W. MAYO ROBSON, Leeds; Dr. J. WICKHAM BARNES, London; Dr. T. P. SMITH, Reigate; Dr. COLLINS, London; Dr. ROGERS, London; Messrs. GEO. STREET AND CO., London; Mr. T. D. AGLAND, London; Dr. LUSH, Fyfield; Mr. T. M. STONE, London; Mr. CHATTO, London; THE SECRETARY OF THE NAVAL MEDICAL SUPPLEMENTAL FUND; Mr. D. COLQUHOUN, London; Mr. R. W. PARKER, London.

BOOKS AND PAMPHLETS RECEIVED—

W. Braithwaite, M.D., and James Braithwaite, M.D. Lond., *The Retrospect of Medicine*—Rev. J. A. Wylie, LL.D., *The History of Protestantism*, part 1.—Timothy Richards Lewis, M.B., *The Microscopic Organisms found in the Blood of Man and Animals: their Relations to Disease*—D. D. Cunningham, M.B., on Certain Effects of Starvation on Vegetable and Animal Tissues—Dr. C. A. Ewald, *Die Lehre von der Verdauung*.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Revue Médicale Française et Etrangère—Birmingham Medical Review—Journal des Sciences Médicales de Lille—Obstetrical Journal—Indian Medical Gazette—Night and Day—Centralblatt für Gynäkologie—Canada Lancet—Students' Journal and Hospital Gazette—Journal of Anatomy and Physiology—House and Home—Il Movimento—Canadian Journal of Medical Sciences—Gazette Hebdomadaire des Sciences Médicales de Montpellier.

APPOINTMENTS FOR THE WEEK.

July 12. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

14. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

15. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

16. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

17. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

18. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 5, 1879.

BIRTHS.

Births of Boys, 1172; Girls, 1147; Total, 2319.
Average of 10 corresponding years 1869-78, 2185'1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	624	584	1208
Average of the ten years 1869-78 ...	690'0	631'5	1321'5
Average corrected to increased population ...	...	...	1414
Deaths of people aged 80 and upwards ...	...	...	31

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West ...	561359	4	10	8	4	1	...	...	...	2
North ...	751729	4	23	11	1	4	...	3	...	2
Central ...	334369	...	10	2	1	6	...	2	...	2
East ...	639111	...	26	10	2	8	...	2	...	4
South ...	967692	3	10	7	3	16	...	4	...	3
Total ...	3254260	11	79	38	11	35	...	11	...	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	29'561 in.
Mean temperature ...	...	...	...	...	53'3°
Highest point of thermometer ...	...	...	...	...	71'2°
Lowest point of thermometer ...	...	...	...	...	48'4°
Mean dew-point temperature ...	...	...	...	...	50'5°
General direction of wind ...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	1'73 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 5, in the following large Towns:—

	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending July 5.	Deaths Registered during the week ending July 5.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		In Inches.	In centimetres.
Boroughs, etc. (Municipal boundaries for all except London.)										
London ...	3620868	48'0	2319	1208	71'2	48'4	56'5	13'61	1'73	4'39
Brighton ...	105608	44'9	49	31	70'1	48'4	57'0	13'89	0'98	2'49
Portsmouth ...	131821	29'4	76	24	...	...	...	...	...	...
Norwich ...	85222	11'4	42	36	69'0	50'0	56'1	13'39	1'05	2'67
Plymouth ...	74293	53'3	43	28	66'0	50'5	58'1	13'39	2'24	5'69
Bristol ...	209947	47'2	186	64	67'8	48'2	55'3	12'95	1'47	3'73
Wolverhampton ...	75100	22'1	50	22	66'5	46'5	54'2	12'33	1'08	2'74
Birmingham ...	388834	46'3	269	133	...	...	...	...	...	...
Leicester ...	125622	39'3	85	33	65'2	47'8	54'2	12'33	1'11	2'82
Nottingham ...	169396	17'0	101	45	71'0	47'4	56'4	13'55	0'78	1'98
Liverpool ...	538338	103'3	373	219	64'8	49'0	53'5	11'95	0'55	1'40
Manchester ...	361819	84'3	268	153	...	...	...	...	...	...
Salford ...	177849	34'4	133	60	...	...	...	...	...	...
Oldham ...	111318	23'9	81	40	...	...	...	...	...	...
Bradford ...	191046	26'5	111	73	67'6	48'2	54'6	12'56	1'58	4'01
Leeds ...	311860	14'5	241	103	69'0	48'0	56'3	13'50	0'86	2'18
Sheffield ...	297138	15'1	205	99	66'0	49'0	54'5	12'50	0'99	2'51
Hull ...	146347	40'3	137	39	...	...	...	...	...	...
Sunderland ...	114575	41'4	98	41	74'0	50'0	58'1	14'50	0'57	1'45
Newcastle-on-Tyne ...	146948	27'4	110	76	...	...	...	...	...	...
Edinburgh ...	226075	53'9	145	79	65'4	47'2	54'3	12'39	0'77	1'96
Glasgow ...	578156	95'8	395	212	65'0	48'5	54'8	12'67	1'11	2'82
Dublin ...	314666	31'3	206	159	67'4	44'6	55'5	13'06	1'74	4'42
Total of 23 Towns in United Kingdom	8502896	38'6	5678	2981	74'0	44'6	55'5	13'06	1'16	2'95

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29'56 in. The highest reading was 29'91 in. on Monday morning, and the lowest 29'20 in. on Tuesday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

TWENTY-NINTH SESSION OF THE GENERAL MEDICAL COUNCIL.

HELD AT THEIR HOUSE, OXFORD-STREET, W.

FIRST DAY—THURSDAY, JULY 17.

OPENING ADDRESS BY DR. ACLAND, F.R.S., PRESIDENT.

"THE Council has been necessarily summoned at this time, since to-morrow the President's term of office will expire.

Several other matters require your attention. Returns from some of the licensing bodies will be laid before you in answer to your inquiries made in March last concerning the study of ophthalmology, and of gynecology, including obstetrics.

These returns, together with some other papers, notably a communication from the Branch Council of Ireland, and a resolution to be proposed to you concerning preliminary education, will tend to raise again the whole subject of the duration and manner of medical teaching in all departments. Many who took part in the former discussions on this subject are not with us. Brodie, Stokes, Green, Syme, Lawrence, Parkes, Rumsey, all gone—Quain (the surgeon), Allen Thomson, Lister, Cæsar Hawkins, George Paget, Sharpey, Embleton, yet with us, and several others who were prominent in the older elaborate discussions on education cannot now state their views in Council. It will not, then, be surprising if the present members of Council should desire, at this or an early opportunity, to consider what has been the result of the recommendations, which occupied the attention of the Council for so many years up to the present time.

Various correspondence regarding colonial and foreign practitioners will remind you how urgent it is that the Government should come to a conclusion with reference to this subject, already delayed ten years. The letters and reports from the Governor-General and the Privy Council of Canada, and one from the University of Adelaide, demand especial attention.

A person convicted ten years ago of a grave misdemeanour and removed from the Register, seeks to have his offence condoned and to be replaced. The case of one now on the Register, but expelled from the licensing bodies to which he is attached for circumstances of the gravest character, will come before you for judgment. This induces me to say here that, though some exceptions are still made to the general in its relation to the local register, we are assured by the Registrar that the various errors which had crept in some years ago are wholly corrected and removed. The Dentists' Register comes into operation in August. A list of various minor registers, showing that part of the present work of the office, will be submitted to you.

After various modifications, the Government Medical Act Amendment Bill passed the House of Lords, and has been read a second time in the House of Commons. In compliance with a strongly expressed wish, the Government had agreed that a Select Committee of the House of Commons should be appointed to inquire into the constitution of the Council. But as it appeared that the Bill would be opposed at every stage unless that Committee had a more extended function, the Committee was appointed to consider, not only that single point, but the whole of the Bills now before the House, viz., the Government Bill, Mr. Childers' and Mr. Mills' Bill, Dr. Lush's Bill, and Mr. Errington's Bill.

The Committee has taken evidence already from many persons. The questions put to the witnesses have had reference to almost every department with which the Council has to deal—to its functions, its powers, its work, its income, its expenditure, and also to its constitution.

It was my duty, when I was summoned, to lay before the Committee the sixteen volumes of Minutes with their index, the various reports on education, and on the visitations of examinations, with such other papers as seemed likely to give information as to the work and the manner of working of the Council.

The history of the construction of the Medical Act of 1858 and the amending Bills which have followed, and have not become law, was fully entered into by Mr. Simon,

and the income and expenditure were explained by the senior treasurer.

A question has been much discussed whether the Council should exercise direct and absolute control over the details of the general, scientific, and practical education, as far as regards medicine, in all the universities and all the medical corporations and schools in the country. This question is often too lightly put and too hastily answered. We may take a single instance. Thinking men are not even now decided whether the average general practitioners—that is, by far the largest number of the profession—will best begin their difficult studies with a private practitioner or in a complete medical school. May not both ways be good? Is not contact with the daily life of a skilful, upright man a discipline of itself, in some respects the best a student can have? Yet is there not a risk of his falling into the hands of one neither skilful nor upright, and of acquiring low views of his profession for life? And with regard to so-called medical schools, is the standard and tone of all (metropolitan or provincial) on at all the same level of culture, of science, and of practice? Are we, under these circumstances, to seek to force the several methods of preparation and of study into one precise groove? or shall we allow and even encourage that diversity which is promoted by freedom, by opportunity, by national taste, and even personal interest, so long as it stands the supreme test of a good final examination of fitness in respect "of the knowledge and skill requisite for the practice of the profession"?

I am well aware that these plain, often-reiterated questions may appear to some persons outside the responsibility of the Council, too commonplace for calm inquiry and careful decision. Some would settle them at once by a majority of votes, and would impose the verdict of that majority on the leaders of thought, whether in our universities, in our great colleges of surgery and of medicine, or in the great private schools attached to hospitals, royal or self-supported. But those who have paid attention to the modern changes and the great progress of the science and art of medicine and surgery know full well that general education and medical knowledge are in a state so transitional, that they will long require constant watchfulness and care, and much interchange of thought and experience between the teachers and examiners of various schools of this and of other countries. The reports of the Council on professional education in the year 1869, and the report of the Teachers' Association in the year 1870, and the increasing demand that more time shall be devoted to great and special subjects, such as experimental physiology or ophthalmology, are quite sufficient to prove this.

Looking, indeed, at the subject-matter of medical education, at the difficulty, extent, and yearly growth of biological research, at the largeness of the interests of the national health, the extent of preventive and legal medicine, at the problems connected with the natural history of disease, at the vast array of fact in the domain of modern pathology, at the improvement in the means of diagnosis and of the apparatus of therapeutics, the knowledge we are obtaining of the need and results of good nursing and the training required for it, one cannot but feel that a future of the deepest interest lies before this Council, as a great educational institution, if only it can be saved for some years to come from the distractions forced upon it from without—such, I mean, as is caused by discussions on the machinery for performing its duties and on the merits of its own constitution, with which clearly it has, as long as it exists, nothing to do, and by which it has been disturbed and hampered in its deliberations for a period as long as the siege of Troy.

It would ill become me to trespass on your time with further observations in this direction. In the circumstances under which I address you they will be, perhaps, thus far pardoned. It has seemed well that we should all be reminded how vital it is for the cause of medical education that the Legislature should pronounce, without further delay, whether there is or is not to be a system of combined examination approved by this Council; or whether each one of the existing licensing bodies is to feel that its present examining board is to be permanently maintained, with the corresponding responsibility of securing by some means a complete pass examination. Every other educational question pales in importance before this, for, in the present state of public opinion, examinations necessarily

guide the average, and to a great extent the higher, education.

When we look back on the first few years of the existence of the Council and compare them with the latter years, we cannot fail to be struck with the great advance made towards a complete and comprehensive view of the needs of society in relation to medicine, and of the extent to which special interests are subordinated to national wants. The progress of natural science, the addition to the resources of healing, and the abolition of unnecessary restrictions, engage the common thoughts of the medical profession, and a new and constant diversity of suggestion and endeavours maintain among us a vigorous life. The whole profession of the present day, its teachers and examiners, and, indeed, its actual students, are keenly alive to the misfortune which attaches to the instances, happily more and more rare, of men who are able to evade by ingenious contrivances the regulations of the licensing bodies and the recommendations of the Medical Council. Though in a country like ours diversity of opinion is sometimes too loudly expressed, yet that very diversity has here at least tended to create a harmony of aim and a unity of spirit before unknown, and a genuine desire for the advancement of sound knowledge and beneficent practice in medicine equally throughout the British dominions.

ORIGINAL COMMUNICATIONS.

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA, ESPECIALLY THOSE PREVALENT IN BENGAL.

By Dr. CHEVERS.

(Continued from page 590 of last volume.)

MORBILLI.

MEASLES runs nearly the same course in India that it does in England, save that, among the children of well-to-do Europeans, it is probably less dangerous there than it is at home. (a) Still, this disease is very common and very destructive among the children of the native poor in cities. In 1868 it was reported by Dr. Charles, Superintendent of Vaccination, that Calcutta had been visited by an epidemic of measles, which was widely spread throughout the city, and in many places seems to have affected almost every house. Dr. Leith's statistics show that, in the five years 1852-56, the deaths from measles in Bombay were 106, 131, 130, none, and 164. Many years ago, when the women and children of European regiments were too often lodged in hot, ill-ventilated, overcrowded barracks, and badly clothed and fed, measles, when it appeared among them, which was not very frequently, did great mischief. Dr. Murphy (b) reported such an outbreak among the children of H.M.'s 80th at Dinapore, who appear to have been placed under very unfavourable hygienic circumstances. There were no less than 120 cases and six deaths out of a strength of 165.

Dr. Duncan Stewart and Dr. John Macpherson have shown that measles is usually epidemic in Calcutta in January, February, and March. In the Upper Provinces, the researches of Mackinnon show that it generally occurs later, at the hottest season. In this respect it follows the course of cholera, appearing in the North-West after it has almost ceased in Bengal. When the disease occurs in the cold season in anæmiated children, and the eruption is scarcely visible until the patient is placed in a warm bath, severe laryngeal, pulmonary, intestinal, renal, and, I have reason to believe, endocardial complications, may occur. In the hot season, brain mischief is always threatened. In the epidemic in the 80th Regiment, alluded to above, the heat being very great, head complications, often attended by convulsions, were prevalent, the six deaths were so caused. There appear to have been no cases of serious chest complication. (c)

(a) Dr. Mackinnon observed that "It is a very principal difference in the diseases of Indian children how little mortality they suffer from the exanthemata, small-pox excepted, and even this has reference to native children."

(b) Cited by Mackinnon.

(c) Dr. F. P. Staples published in the *Indian Medical Gazette*, February 1, 1872, page 30, what appears to have been a typical example of the Morbillous Blut Dissolution described by Dr. Franz Mayer. It occurred in a European soldier, and was characterised by symptoms of extreme poisoning of the nervous system, with a bluish colour and early fading of the eruption, and an enormous deposit of albumen in the urine.

Dr. Macgregor, (d) the field of whose experience was principally the North-Western Provinces, dwells upon the fact that the sudden transitions of temperature from heat to cold, so frequent in all parts of India, should be carefully guarded against in measles. He argues with justice that, when measles is prevalent in the cold months, the infection should be avoided as much as possible, since the cold will tend to aggravate the disorder, and to cause dangerous chest [and bowel] complications. On the other hand he urges that, when measles prevails in February, there is little or no use in avoiding it, for the disease is one people must undergo once in their lives, and it is better that the trial should be got over when young. He might have added that one should prefer the mild disease of a hot climate to the comparatively severe European type. He especially insists that children should not be removed to the Hills in the state of debility which follows measles, at least until a considerable interval has elapsed, and until the hot weather has set in at the Hill-stations. Measles has not unfrequently broken out among the children in troop and passenger ships, on the voyage round the Cape, so long after leaving land as somewhat to countenance Dr. Salisbury's view that the fungi of wheat-straw are the source of measles.

FEBRIS RUBRA.

I never saw any form of Scarlatina in Bengal Proper, or any disease which could be fairly mistaken for it; neither has any medical man with whom I have discussed the subject met with a genuine and unmistakable case in that great Province. (e) Writing in 1864, (f) Dr. Peet, who had large experience in the Bombay Presidency, wrote, "Scarlet Fever is altogether unknown in Western India." According to Dr. William Anderson, of Yedo, Japan is entirely free from this disease. (g) It having been reported that a case of scarlatina had occurred at Simla in May, 1870, the editors of the *Indian Medical Gazette*, with a view to place the question of the occurrence of true Scarlet Fever in Calcutta in a definite position, addressed a circular to all medical men practising there, calling for an expression of their opinions and statement of their experience on the subject. A summary of the replies was published in October, 1871. There was in these a remarkable unanimity on the negative side. Not one of our body had seen a typical case of Scarlatina in India. There were perhaps some isolated cases which appeared to have been imported from Europe. Dr. F. N. Macnamara had seen four by no means indisputable cases in an Armenian family. Most of us had considerable personal experience of Dengue, a disease perfectly distinct from pure Scarlet Fever.

Still there cannot be a doubt that the celerity with which passengers and letters (h) are now conveyed to and from Europe and India has become a means by which an interchange of dire maladies—foremost among which is Scarlatina, formerly kept apart rather by time and distance than by any essential difference in climate—is becoming gradually but certainly effected.

That Scarlatina is, from time to time, conveyed from Europe to India, especially in troop-ships, is now an established fact.

Writing in 1864, Dr. Peet mentioned that Scarlatina had occurred in some of the military stations of the Madras Presidency, soon after the arrival of ships with the families of soldiers, the disease having prevailed on board. But he was not aware that the disease had spread to the native population, or had continued to prevail amongst those by whom it was imported.

The next appearance of Scarlatina in India was announced to the profession at home in the *Lancet*, February 11, 1871, and also by Dr. Louis Thomas, who states (i) that it has been proved that Scarlatina first appeared in Iceland in 1827, and in Greenland in 1847 and 1848, and gradually extended over

(d) "Practical Observations on the Principal Diseases affecting the Health of the European and Native Soldiers in the North-Western Provinces of India," 1843.

(e) The opinion of my friend, the late Dr. Chuckerbutty, that the so-called Dengue which prevailed in Calcutta in 1871-72 was scarlatina, will be considered under the head of Dengue.

(f) "Principles and Practice of Medicine," page 539.

(g) Dr. Dobell's "Reports on Diseases of the Chest," vol. 3, page 14.

(h) Dr. Cornelius Fox writes in the *Sanitary Record* that there can be no question that the poison of Scarlet Fever is disseminated by letters, for proofs of this accident have been repeatedly afforded. The outbreak of this disease in village post-offices has presented itself to his notice on two occasions, and in both cases the disease spread.

(i) "Ziemssen's Cyclopædia," art. "Scarlatina," vol. ii., page 160.

large tracts of land in Asia, and lastly, "according to Maunsell and Cunningham, also attacked India, which had enjoyed immunity from it for a long time."

The occurrence here alluded to was reported by Assistant-Surgeon Maunsell, of the R. H. Artillery, in the *Indian Medical Gazette* for December, 1870. In the previous May this officer encountered at Simla what he was fully satisfied was a case of scarlatina. For my own part, I am not at all persuaded by Mr. Maunsell's brief narrative that the case of Captain E. was one of scarlatina. It is mentioned that the urine was not examined for albumen.

Two months subsequent to this occurrence, Dr. A. Garden had, in August, 1869, at Saharunpore, a case of what he termed "Erythema Scarlatiniforme." (k)

Dr. Garden was judiciously cautious in accepting this case as one of scarlatina. He asked, "In an epidemic of scarlatina, would not this case be accepted as a fairly typical case of the mild form?" But he added that it wanted one of the chief factors of that disease—viz., contagiousness. Though it occurred in a house occupied by two large families of children, no others were affected. Although considerable pressure of argument was laid upon him, Dr. Garden steadily declined to admit, in face of the fact that he had never seen nor heard of an undoubted case in India, that this isolated case (unattended as it was with the slightest evidence of a tendency to spread in a family of eighteen or nineteen persons, most of whom were children) was an unquestionable instance of pure Scarlatina. (l)

More definite information of the appearance of true scarlatina in India was, however, to follow.

In August, 1871, Dr. G. J. Gibson, of the 1-2 Queen's, reported in the *Indian Medical Gazette* that in Poonah, during the months of May, June, and July, 1870, thirteen cases of genuine Scarlet Fever occurred among the children of his regiment. Dr. Gibson gives selections from his case-book which strongly support his conclusion that all the symptoms and sequelæ of scarlatina were present. The rash always existed, appearing on the second day. The tongue, after a few days, presented the strawberry condition. There was the inflammation of the tonsils, pharynx, parotid and sub-maxillary glands. There were discharges from the nose and ears, and one child recovered perfectly deaf. Desquamation occurred in all the cases (in two the nails on the hands and feet were renewed). During this period, dropsy and albuminuria occurred in six cases, the outbreak having occurred during the monsoon (stormy) season, and it being difficult to keep the children in bed: Dr. Gibson several times found those recovering standing in the verandah with nothing on excepting a small nightdress.

Where the first child caught the disease was unknown, but it was reported that there were two cases of scarlatina in the ordinance lines. It is to be regretted that we have no note of the date on which the last draft arrived at Poonah. This point is, however, of minor importance, seeing how very short and easy the transit from Bombay to Poonah is.

In the *Indian Medical Gazette* of September, 1871, the following very important observation was made by Dr. Lundy, of H.M. 58th Regiment:—On February 1 of that year a draft, 122 strong, arrived at Bombay from England. It was afterwards discovered that the disease had appeared on the voyage out, and that two men and four children of the draft were left behind at Aden, as they were too unwell to proceed, and might besides propagate the disease on board. On March 3 the draft arrived at Sealkote. With them were three married families, the children of which mixed freely with the others. On March 30 three children were admitted, and it very soon became apparent that they were suffering from scarlatina. Eleven cases were admitted. The first four were of a mild type; the remainder being more or less severe. Two cases were fatal; and, from the symptoms, Dr. Lundy considered them to be scarlatina maligna. The remaining cases had the characters of scarlatina anginosa, the febrile symptoms being attended with pain; enlargement and suppuration of the sub-maxillary glands; bright redness of uvula and tonsils; back of throat coated with thick mucus; great pain and difficulty in swallowing; tongue swollen and red, papillæ raised; inflammation of the mucous membrane of the nose; and the usual eruption. In the nine cases that recovered, there was desquamation of the cuticle, unaccompanied, except in two, by any severe irritation.

Oedema of the extremities formed a prominent symptom, as did also albuminous urine. The pulse ranged from 103 to 127; the heat of skin from 102° to 109°.

Soon after the draft arrival, two or three men of it were admitted with what was then put down as a feverish attack. Subsequently, Dr. Lundy was inclined to think that they, in reality, suffered from that very mild form of scarlatina which often escapes detection. Indeed, one of the men was, shortly after discharge, re-admitted suffering from anasarca.

Another draft of men who went out to India in the same infected troop-ship, proceeded in March to join the 92nd Regiment at Jullundur. About a month afterwards Scarlatina broke out among the children, and some of them died. (m) Towards the end of December, 1871, it was reported that the *Jumna* had arrived at Bombay, and had been placed in temporary quarantine in consequence of the prevalence of scarlatina and measles on board.

The facts and arguments adduced by Staff-Surgeon Bradshaw and others, fail to convince me that scarlatina has ever been known to originate *de novo* in India. But since he, Dr. Garden, (n) and Dr. R. D. Murray (o) consider that they have seen it so originate there, all practitioners are doubtless on the watch for its appearance. Its tendency to spread and to establish itself in that country does not appear to be by any means strong. It is self-evidently most to be feared where it occurs in the cold and rainy seasons and at the hill stations. To prevent its admission to the country, and to stamp it out at any station where it may present itself, ought never to be a matter of difficulty wherever vigilance and care are observed.

There is no evidence of its existence among the native races of India.

(To be continued.)

REMARKS ON

THE TREATMENT OF SPINAL DISEASE BY SUSPENSION (SAYRE'S METHOD).

By ROBERT WM. PARKER,

Assistant-Surgeon to the East London Hospital for Children.

I HAVE utilised to the full the advantages which the out-patient department of our Children's Hospital so largely affords, for testing Sayre's method of treating disease of the spine, and I purpose very briefly to give the results of eighteen months' experience.

It will be conceded, I think, even by those who differ from Sayre, that since the introduction of his suspension method a new era has dawned in spinal surgery, and that the indifference (due, no doubt, to the difficulties and hopelessness of many of these cases) which was but too often manifested towards the subjects of spine disease who thronged the out-patient departments of our hospitals, has now given place to an enthusiasm scarcely ever before known.

Very much good has already been achieved, and this is testified by the fact that fewer cases of spinal disease now present themselves at the various children's hospitals than formerly. For whereas spinal cases wandered from one hospital to another, and were being constantly sent from the country also, seeking relief and finding none, now they are eagerly sought after by every surgeon with a view to try either Sayre's treatment or some minor modification of it. Professor Sayre has, then, good reason to be proud of the all but general acceptance of his plan of treating these cases, and not less so of the wide adoption of his mechanical treatment of other diseases especially affecting children. I shall confine my remarks to spine disease in children and young persons up to about fifteen years of age; for it is chiefly among such that my experience has been gained. It will not be necessary to enter into the pathology of the disease, nor to discuss in any way the probable mode in which cure takes place. This much I may say, that even when left to itself, spinal disease in young persons, for the most part, tends to spontaneous cure. I believe there are more spontaneous cures than one generally supposes: for I have in my recollection many cases of spinal caries, which have been characterised by an absence of all symptoms, and which have only attracted notice after well-marked angular projection

(k) *Indian Medical Gazette* for July, 1870. (l) *Ibid.*, October 2, 1871.

(m) Staff-Surgeon A. F. Bradshaw (*Indian Medical Gazette*, August 1, 1871). (n) *Ibid.*, May 1, 1872. (o) *Ibid.*, May 1, 1876.

has become manifest. Of course a considerable amount of disease must have occurred before such curvature could take place. Of such cases I have treated several, which have remained stationary while under observation. The history is generally that while the child was being washed—no doubt a rare event in some children's lives—the mother noticed that the back was "growing out." Even allowing that some mothers are unobservant, it will be conceded that the symptoms cannot have been very urgent, or the children could not have gone about as usual; and if they had not done so, this itself would have drawn attention, though the cause had not been clearly appreciated. Such cures, however, are far from satisfactory from a surgical point of view.

In common, no doubt, with others, I have had the opportunity on many occasions of seeing children with spine disease in the very earliest stage, while there was little, if any, prominence of the diseased vertebrae. I regret to add that I have had to watch the gradual development of an angular curvature, which, in spite of all the means then at my disposal, has continued to enlarge until the patient has become a hopeless cripple. Since Sayre so graphically demonstrated his suspension method in London and in Manchester in 1877, however, all this has changed, and cases which then seemed hopeless are now often within the reach and range of surgical help. Far be it from me to disparage the instruments and supports which have from time to time been advocated. I have not had much experience in their use. They are far too expensive for the class of patients who ought to frequent hospitals; indeed, they only come within the reach of the rich few.

The advantages of Sayre's method are manifold, and far more than neutralise the one or two disadvantages to which, nevertheless, one must not be blind. I will speak of the latter first. The most obvious of the disadvantages are the inability to wash the body and to change the flannel under-vest. Of course, in private practice the jacket can be renewed just as often as the patient likes—it is a mere question of fees; then these objections dwindle down to a minimum. In hospital practice, however, it is different. In a few of my cases—among the very poor and least cared for of hospital cases—these objections have been positive barriers to the carrying out of the treatment. The collection of dirt and vermin together after a week or ten days has become such a source of irritation that the jacket has had to be removed. Nor could I devise any means to obviate this difficulty. In a few other cases, and quite apart from any of these extraneous causes, the children could not bear the jacket. One child got covered with an eruption of urticaria; two or three others have come out in an eczematous eruption: and that this manifestation depended on wearing the jacket was demonstrated by the fact that the eruption disappeared immediately the jackets were discontinued. In a few cases something even more severe than eczema has resulted. Nor is this to be wondered at. Every surgeon is acquainted with the varying degrees of susceptibility of different children, and with the facility with which the skin of some of them chafes under irritation. So while this must be mentioned as among the disadvantages, it is not to be attributed solely to the plaster-of-paris jacket. On the other hand, I have known the jacket to be worn for seventeen weeks without renewal, and without producing any excoriation, and can testify that when removed there was not the least unpleasant odour or the least visible signs of unhealthiness of any kind. I must also add that in two cases I could not put on the jacket on account of the dread with which the children seemed to regard the proceeding.

Coming now to the advantages of the method, I would first speak of its special suitability for children. For when a jacket has once been well applied, from its very nature it becomes a protection against injury, blows, and falls, as well as a support for the diseased vertebrae. This is an important gain for children in a class of life where neglect is of necessity the rule, and careful nursing the exception. There are no screws to adjust, neither is there any danger of the apparatus getting out of order. I consider the practice of suspending the patients, before the application of the jacket, to be scientific and in accordance also with the teachings and traditions of experience. Personally I have tested the plaster-of-paris jacket both with and without previous suspension, and have come to regard it (suspension) as the most important part of the plan. Indeed, the testimony of the patients, in my experience has, without exception, been

in favour of previous suspension. Many of my cases were much too young to express an opinion, but from children over ten years of age very reliable testimony can be obtained. It seems to me a matter beyond all dispute, that suspension as recommended by Sayre will tend to separate the diseased surfaces of the vertebrae one from another, while a rigid jacket applied during extension will materially aid in keeping them apart as well as at rest. I do not attempt to reduce an angular curvature when it has become very marked, or when it has lasted for any length of time. But I have many times seen the earliest commencements of a curvature completely disappear under treatment carefully carried out and persevered in. The amount of suspension will vary in each case; but I think it ought to be applied gradually and slowly, and in order to get the greatest advantage from suspension I think it should be continued for some minutes before an application of the plaster is commenced; then I believe that permanent deformity will be prevented in many cases in which without suspension it would certainly occur.

Perhaps the greatest advantage of Sayre's method, next to its general adaptability to all cases and all ages, is its comparative inexpensiveness. For this allows its use even among the very poorest, and from the very first moment when the spine disease begins to manifest itself. There is no waiting for the Surgical Aid Societies' relief, or for an unpunctual instrument-maker, or until the patient can save or collect a sufficiency to buy the "spinal instrument" for himself. A surgeon can always extemporise a suspending apparatus, even if he have not the pulleys usually used; then a few gauze bandages and a little plaster of paris completes the list of real requisites. Of course it is better to have the tripod and the chin supports, for they add to the comfort of the patient, and hence to that of the surgeon. A country practitioner can apply the jacket as well as a London surgeon; thus saving to the patient the expense as well as the labour of repeated journeys to London. The patient, furthermore, never need leave home, but can remain there with all its attendant advantages and comforts, and be under the care and supervision of his own medical man.

I have notes of fifty cases, under fifteen years of age, treated by this method. They may be tabulated as follows:

a. Greatly benefited	28
β. Not benefited	9
γ. The jacket, for some reason or other, could not be worn	5
δ. Lost sight of	8

a. *Greatly benefited.* I have hesitated to call any of the cases *cured* at so early a period (comparatively speaking) of this mode of treatment, for it is not yet two years since Sayre first demonstrated it to us. Nevertheless, I believe that among the twenty-eight cases included under "Greatly benefited" there are many who are practically cured. Time alone will show how far this surmise is correct. When, however, the patients are able to leave off treatment, and to go about like others without any pain or fatigue, and when the curvature is found to remain perfectly stationary, I think it is justifiable to speak of such cases as "greatly benefited."

β. *Not benefited.* Under this heading I include nine cases.

1. A. J., boy, aged three years. When first seen there was slight angular projection in the low dorsal spine. Child had not been able to walk or stand for the previous two months. After wearing the jacket for two months he had so much improved that he could walk into the room. Some months later he was brought again with caries in the lower part of the cervical spine. He has now gravitation abscesses in both groins, and the disease seems to be progressing.

2. H. K., aged six, girl. Disease of the high dorsal spine, of two years' duration. She had worn a "spinal support," but had continued to get worse rapidly nevertheless. A jury-mast was applied in the usual way. The child improved very much; she gained flesh and strength. After awhile her legs began to get weaker; then she lost the use of them, and partially control over sphincters. The jacket was worn continuously; the angular projection did not increase. At the present time she is less well than when she first came under observation.

3. Joseph P., aged seven years and a half. Disease of four months' duration in the mid-dorsal region. There was temporary improvement at first, then a relapse; the boy then ceased to attend.

4. Emma F., aged two years and a half. Disease of dorsal spine, of two months' duration. There was no improvement after having worn the jacket for some weeks.

5. Samuel W., aged four years. Disease of dorsal spine, of six months' duration. The boy could scarcely stand. His urine dribbled away, and he had no control over the fæces. He steadily got worse. Several jackets were applied at short intervals.

6. Sarah O., aged eleven years. Disease in the lowest dorsal and high lumbar regions, of uncertain duration. The girl did not improve while under observation.

7. Arthur L., aged thirteen months. Disease of dorsal spine, of nine months' duration; the subject also of tubercular disease of the urinary mucous membrane. The child did not improve while under observation.

8. Joseph H., aged two years and a half. Disease in the high dorsal region of nine months' duration. No improvement.

9. Barnet C., aged six. Extensive disease involving the whole dorsal spine. No improvement.

It ought to be said that all the above cases are hospital out-patients, and that beyond the weekly visit to the hospital no medical supervision was possible. Two of the cases, however, were admitted into the wards for short intervals, but no benefit resulted from it.

γ. *The jacket, for some reason or other, could not be worn.* Under this heading I have five cases. They are all hospital out-patients, and the main cause of difficulty was dirt. Three of the children were inveterate vermin-breeders, so that I decided to discontinue treatment. One little girl became covered with an eruption like urticaria, which quickly subsided when the jacket was removed, and as quickly reappeared when a new jacket was put on. Another little girl had to discontinue her jacket on account of sores. I was unable to prevent the occurrence of sores, though I tried several plans. She appeared to have a very sensitive skin, and I was finally obliged to give up this plan of treatment.

δ. Eight cases of the fifty have been *lost sight of*. It would be just as fair to include these eight cases among the "benefited," as in any one of the other sub-divisions, on the ground that, had they not been benefited, they would certainly not have ceased to attend.

In addition to the above cases, I have many others under observation, but am at present unable to draw from them any conclusions either in favour of, or prejudicial to, this mode of treatment. I have been so well satisfied with this plan of treating spine disease that I have not tried any other method sufficiently extensively to be able to compare it with this. But I must once again give in my firm adhesion to the principle of extension. It is this principle of extension which constitutes the main difference, I take it, between the poroplastic jacket and Sayre's jacket proper. Now, as regards this, in some of my earliest cases I used to apply a plaster-of-paris jacket, and after a week or fortnight cut it down the centre, and take it off. I then bored lace-holes on each side of the longitudinal incision, and reapplied the jacket with a lace to keep it in position. I left off the plan because I found that the jacket never afforded the same relief and comfort after it had once been cut, however tightly it were laced; and such of my patients as were old enough to express an opinion, all preferred the original jacket as put on while they were extended. It seems to me, further, that extension is as beneficial in these cases, and just as much called for, as in hip-joint disease, for it separates the diseased surfaces which the plaster jacket is intended to set at rest. As in hip disease, so in spine disease, the extension must be moderate as well as gradual. I have often thought that in our desire to straighten the spine as much as possible we may be led to extend more than is really either necessary or desirable; and I have now come to the conclusion—and this applies especially to young adults—that it is better never to take a patient off his feet by the pulleys, nor to allow him to do so himself—that is, never on any conditions to allow the patient to swing. It is well, I think, to keep a patient suspended ten minutes or a quarter of an hour before putting on the jacket: this in part overcomes muscular action, which is quite as much a cause of angularity as the weight of the head and upper parts of the body.

Speaking of the causes of the angular projection, I would say a few words on the value of the "jury-mast"—so called.

It acts by distributing the weight of the head over the whole trunk. It seems to me to be a very important feature in Sayre's plan of treatment. Children invariably take to it very kindly. In a few cases, where little seemed to result from the use of the jacket alone, the application of a jury-mast was followed by rapid and permanent improvement. I would paraphrase a well-known surgical maxim by saying, "When in doubt, put one on." In my own opinion, in all cases of disease of and above the middle of the dorsal region, a jury-mast is required.

The "dinnerpad" must be comparatively large. It is a good plan to apply the jacket after, rather than immediately before, a meal. The quality of the plaster of paris is one of first importance. It should always be kept in air-proof canisters, and it is a good plan to put it into a hot oven for a few minutes before the bandages are rolled.

A jacket which is too loose is apt to cause sores from rubbing (as will a boot which is too large); while a jacket which is too tight will produce sores from pressure.

There is one other point in using Sayre's jacket that I have not yet alluded to. It is this—the *danger of allowing our patients to do or attempt too much*.

This is no imaginary danger. Patients for the most part are so comfortable after a plaster jacket has been well applied, and feel from it such a support, that they are apt to treat themselves as though the spinal disease no longer existed. They run up and down stairs, play and romp about, take long walks such as they would never think of under any other plan of treatment. Now, although I quite agree with Professor Sayre, that fresh air and exercise are requisite, and that the deprivation of them tends to still further deteriorate health, I cannot think that indiscriminate exercise is favourable to recovery; and it is for this reason that I speak of this as one of the *dangers* of Sayre's treatment of spinal disease.

I will just refer once again to the comparatively short period which has elapsed since the suspension method was introduced; and remind those who take exception to it, that from the very nature of the disease a *long time* must necessarily be required before a case can be considered cured. The hint may be useful also to those who practise this plan of treatment; and I think it just to one's patients that we should let them distinctly understand this from the very first moment that we advise them to adopt it.

I have great confidence that, when we know how to recognise the very earliest manifestations of spine disease, and apply the remedy which is now within the reach of every surgeon, spinal deformities, as at present too often seen, will almost cease to come before us.

CLASSES FOR PRACTITIONERS AT LEIPZIG.—A number of professors, docenten, and physicians in practice, have joined together for the purpose of giving lectures to medical practitioners from September 20 to October 20. The following courses have been announced:—Clinical Demonstrations, by Geh.-Med. Rath Prof. Dr. Wagner; Ophthalmological Demonstrations, by Geh.-Med. Rath Prof. Dr. Coccius; Anatomical Demonstrations and Normal Histology, by Prof. Dr. His and Dr. Hesse; Topographical-Anatomical Demonstrations, by Prof. Dr. Braune; Pathological-Anatomical Demonstrations, by Prof. Dr. Cohnheim and Prof. Dr. Weigert; Demonstrations in Select Subjects in Hygiene, by Prof. Dr. Hofmann; Demonstrations of Anatomy on the Living in relation to Surgical Diagnosis and Therapeutics, by Med.-Rath Prof. Dr. Schmidt; the Hygiene of Large and Small Towns and Country Districts, with Demonstrations and Excursions, by Prof. Dr. Reclam; Select Subjects in Diseases of the Uterus and Pædiatrics, by Prof. Dr. Hennig; Electro-Therapeutics, especially in relation to Chronic Diseases of the Nerves and Muscles, by Prof. Dr. Brenner; Physical Diagnosis, by Dr. Friedländer; Animal Inoculation, by Dr. Fürst; Ophthalmoscopy, by Dr. Schröter; Gynæcological-Surgical Technology, with operations on the dead body, by Dr. Leopold; Surgical Operations and the Antiseptic Treatment of Wounds, by Dr. von Lesser; Ophthalmoscopy and Operations on the Eye, by Dr. Schön; Select Subjects and Demonstrations in Orthopædics, by Dr. Schildbach; Laryngoscopy, by Dr. Heinze; Select Subjects in Dentistry, by Dr. Klare. Besides the above, there are to be visits to the clinics of Geh.-Med. Rath Prof. Dr. Thiersch and Prof. Dr. Heubner; and Dr. Hanke is to give a practical course on Gynæcology.—*Deutsche Med. Woch.*, June 28.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CHARING-CROSS HOSPITAL.

FRACTURE OF BASE OF SKULL, FRACTURE OF JAW, WITH COMPOUND FRACTURE OF RIGHT HUMERUS—DELIRIUM—IMBECILITY—AMPUTATION AT SHOULDER-JOINT, FOLLOWED BY RECOVERY.

(Under the care of Mr. BARWELL.)

[For the notes of this case we are indebted to Mr. Albert Leahy, M.R.C.S., Surgical Registrar to the Hospital.]

J. J., aged sixteen, was admitted into the Albert Edward Ward on September 6, 1878, with a history of having fallen a distance of over seventy feet down the shaft of a lift.

State on Admission.—He was quite insensible; there was profuse venous hæmorrhage from both ears, and he was also bleeding from the nose and mouth; the pupils were unequal (the right being dilated and the left contracted), and both were insensible to light. There was also some slight subconjunctival extravasation on the right side. The right humerus was fractured just below its anatomical neck, and there was a lacerated wound of the skin on the inner surface of the arm, about one inch in length, leading down to the seat of fracture. His lower jaw was also broken about one inch to the right of the symphysis.

The wound in the arm was syringed out with a solution of carbolic acid in water (one in twenty), and afterwards dressed antiseptically and placed upon a Stromeyer's pillow. Ice was applied to the head.

September 7.—The hæmorrhage from the ears has ceased, and there is no serous oozing. He has not recovered consciousness. Has been ordered—*R. Olei crotonis, guttæ ij.; sacchari albæ, gr. v.—M. ft. pulv.; statim sumendus.* Temperature, morning 101°, evening 102°.

9th.—He has recovered consciousness, but wanders a great deal in his talk. There is no facial or other paralysis, and the pupils have recovered their equality. He answers when spoken to sharply, giving his name and address correctly. The wound in the arm has completely closed. Temperature, morning 101°, evening 102·4°. His tongue is foul; face flushed; and croton oil has acted freely.

12th.—He is delirious, and cannot be kept quiet; has pulled the bandages off his arm, and the wound has been re-opened by this restlessness.

13th.—He had a distinct rigor to-day. Temperature 104°. The margins of the wound look red and angry. He complains of great pain along inner side of arm, and there is a marked erysipelatous blush on the skin between the wound and apex of axilla. Poultices have been ordered to arm. He is still delirious, and his manner and mode of answering are extremely imbecile.

15th.—A quantity of pus was discharged from wound to-day. A small swelling has formed over the seat of fracture of the jaw, and fluctuation can be detected in it. The wound of the arm is being syringed out with carbolic acid lotion, and a drainage-tube has been introduced. He is very imbecile in manner and speech, and laughs in an idiotic style.

17th.—He had another rigor to-day. Temperature 105°. Upon examining the wound the lips were found to be partly closed, and the drainage-tube was found to have slipped out into the poultices. The parts of the arm in the immediate vicinity of the wound are red, tense, and exceedingly tender. A probe was passed into the wound for a distance of about three inches, for the purpose of freely re-opening it. Upon removing the probe a large quantity of pus (two ounces and a half) escaped. The rigor and rise in temperature were probably due to the retention of this pus within the wound. The abscess over the site of fracture of the jaw was opened to-day, and a considerable quantity of pus evacuated. The delirium has ceased, but he is quite imbecile.

October 15.—The imbecility still continues, but he has occasional lucid intervals. Complains of feeling cold, and says his arm is exceedingly painful. He had several facial twitches to-day, which were confined to the left side.

26th.—To-day hæmorrhage from the wound came on suddenly, and he lost six ounces of blood. A graduated com-

press was applied over the wound and the arm bandaged. The blood lost was dark in colour and had pus mixed with it. Patient looks very exsanguined, and is still imbecile. The application of compress has stopped the hæmorrhage, but as it had to be placed over the wound, thus occluding it and allowing no exit for the pus, it has been discontinued.

29th.—He had a second attack of hæmorrhage to-day of a more severe character than the first, the quantity of blood lost amounting to eight ounces. Mr. Barwell held a consultation with Mr. Hird and Mr. Bellamy, and it was decided to remove the arm at the shoulder-joint. Mr. Barwell had the boy given bichloride of methylene, as he thought a minimum amount of vascular excitement was desirable, and that this anæsthetic was less likely to be followed by vomiting; the patient's cerebral condition in all probability being one in which any disturbance of the circulation was to be as much as possible avoided. The arm was removed by Spence's method, and the detached head of humerus carefully dissected out of glenoid cavity. The operation was performed with all antiseptic precautions, and very little blood was lost. The humerus was found to be fractured in an oblique manner, the line of fracture running from the great tuberosity above downwards and inwards to the upper border of the insertion of the teres major muscle. The ends of bone were comminuted, and several pieces were lodged in the surrounding soft tissues. There was a large abscess cavity around the fracture. Temperature after the operation 97°.

30th.—Quite sensible and free from pain. Temperature morning and evening 98°. Had not been sick. Pulse 100. Slept fairly well.

November 3.—The stump was dressed to-day; a large portion of the flaps had united by first intention. There was no suppuration. Patient takes his food well. Temperature, morning 99°, evening 99·3°. He seems much more sensible.

7th.—The wound is suppurating freely; the antiseptic dressings were discontinued, and plain carbolic acid lotion dressings substituted. His mental condition is undoubtedly much better, and at no time since the operation has the temperature exceeded 100°.

December 1.—Patient got up to-day for the first time. All traces of imbecility are gradually disappearing. The wound looks healthy, and the flaps are uniting slowly by granulation. It is syringed daily with a solution of carbolic acid in water (one in twenty). From this date patient improved gradually, and on January 23, 1879, finally left the hospital with the stump quite healed, and his mental condition perfectly restored to normal.

Remarks by Mr. Barwell.—In this case the one indisputable proof of fracture of the base of the skull—viz., autopsy—is fortunately wanting, yet every symptom shows this injury to have been sustained. After the lapse of a week the effects of head mischief became more and more mixed with the symptoms produced by the injury to the shoulder, with wound and suppurative fever. It is impossible, however, to distinguish how much of the delirium and violence might be assigned to the one cause, how much to the other. After a time a third disturbance—viz., acute anæmia—is superadded, and with it a well-marked form of imbecility makes its appearance. The lad's manner, expression, mode of answering questions, and entire lack of memory, were characteristic of the idiot. After the second attack of hæmorrhage I amputated at the shoulder-joint, and almost from that moment the cerebral symptoms disappeared. Thus a problem, or a series of problems, present themselves, and are most difficult of solution. A compound fracture of the humerus with suppuration may produce delirium, but not imbecility. Anæmia of the most advanced type is not accompanied by idiocy; hence it would seem that the head injury must have had a large share in determining these cerebral conditions, yet they disappear very rapidly immediately after amputation. I cannot but think another condition must be taken into account. The axillary plexus running over the sharp edge of the upper fragment was somewhat displaced and probably much irritated, and some of the nerves were surrounded by pus. The nerve-excitation, acting upon a system already disturbed by such an injury as fracture of the basis cranii, has probably more to do with the whole set of brain symptoms than either wound, fever, or anæmia. The mental amelioration after amputation was too rapid to be attributable to recovered strength or abated fever.

LOCK HOSPITAL.

CASE OF SYPHILITIC PARALYSIS OF THE OCULAR MUSCLES.

(Under the care of Mr. ALFRED COOPER.)
[Communicated by Mr. C. B. LOCKWOOD.]

H. T., aged thirty-four, a gardener, strong and healthy, attended at out-patient room on July 15, 1878, under the care of Mr. Berkeley Hill. He had then an indurated sore at perineum, a suppurating bubo in groin, and a pustulo-crustaceous rash thinly scattered over body and limbs. His rash and sore soon got well under the influence of mercury—one grain three times daily. The mercury had a very marked effect upon his gums. On December 30 he had no symptoms, but continued treatment. February 3, 1879: He complained that he saw things double, and also of severe frontal headache. The right external rectus was found to be paralysed. The optic disc was quite normal, and the same as the opposite one. February 17: He was admitted as an in-patient under Mr. Alfred Cooper. His headache was more severe, and there was an eczematous condition of right half of forehead, with slight anæsthesia. Gums vascular and retracted. Mercury stopped, and five-grain doses of iodide given with iron. March 6: Ptosis of right eyelid commenced, and during the next two days the superior, inferior, and internal recti became paralysed. The pupil slightly dilated; disc showed no alteration. The anæsthesia was now well marked over the distribution of all the branches of the orbital division of the fifth. On the right side, points were distinguished as separate only when one inch and a quarter apart; on sound side when a quarter of an inch apart. There was almost total insensibility of cornea and conjunctiva, with slight lachrymation. The infra-orbital division of the fifth was not involved. Until March 13 the iodide was increased to twenty grains three times a day. The paralysis increasing, half-grain doses of green iodide were ordered twice daily. March 16: Slight improvement had taken place. Points distinguished double when one inch apart; eye motionless; headache better. Until April 7 the improvement continued, and all the muscles supplied by the third nerve regained their functions. Sensibility became quite restored; but, in spite of blistering, the external rectus did not resume its functions. He became an out-patient again April 17, and increasing doses of iodide were tried until June 9, when there was complete recovery of all the nerves except the sixth. There was a slight internal squint.

It may be observed that the paralysis began about eight months after the chancre, and that in a month all the orbital nerves became affected. Since the infra-orbital division of the fifth was unaffected, the lesion was anterior to the Gasserian ganglion. The retinal veins were not involved; it was therefore posterior to the exit of the ophthalmic vein through the sphenoidal fissure. It involved the nerves in the following order: the sixth first, then the fifth, fourth, and third. These nerves, however, are arranged in this order upon the wall of the cavernous sinus, and are close together. It is needless to point out that this would be between the preceding points—i.e., the sphenoidal fissure and the Gasserian ganglion. It will also be observed that the nerves were involved in their order from below upwards. A lesion therefore existed on the wall of the cavernous sinus, probably an inflammation running from below upwards. The sixth nerve has not recovered in spite of blistering, etc., and, since an internal squint has begun, the hope of its ultimate recovery becomes less.

POWDERED ALOES AS A DRESSING OF WOUNDS.—

Seeing the advantage which is derived in veterinary practice from the dressing of wounds by powdered aloes, Dr. Millet, an army surgeon, has employed it in a case of lacerated phalanges, and reports very favourably as to the benefits derived from it. He considers that it fulfils a double indication, acting as a cicatrisant and as a means of dressing by occlusion. For the powder becomes agglutinated under the influence even of the heat of the hand, and lines the wound with an impermeable layer which prevents the contact of air, assuaging the severe pain of the wound almost immediately. The dressing has also the advantage of being very simple and only requiring renewal at long intervals.—*Gaz. Hebdomadaire*, July 11.

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Medical Times and Gazette.

SATURDAY, JULY 19, 1879.

THE GENERAL MEDICAL COUNCIL.

THE brief address delivered by the President of the General Medical Council at the opening of the session which began on Thursday afternoon is studiously colourless. Dr. Acland, impressed probably by the uncertainties as to medical legislation, and by the fact that his own term of office as President of the Council would come to an end a few hours after he spoke, said nothing that could guide the Council as to their conduct or work at this critical time. Nor did he venture on the expression of any positive opinion on any subject except one—the urgent necessity that Government should come to a conclusion with reference to the subject of the registration, and liberty to practise, of colonial and foreign practitioners, a subject “already delayed ten years.” The delay shown by the Council in dealing with education, preliminary and professional, is spoken of, or rather hinted at, but very tenderly. The members of the Council are told that returns from some of the licensing bodies, in answer to inquiries made by the Council, will be laid before them, and other papers tending to raise the whole subject of medical teaching. But the President does not speak of this as a matter of any urgency. He simply remarks that it will not be surprising if the present members of the Council should desire, “at this or an early opportunity, to consider what has been the result of the recommendations which occupied the attention of the Council for so many years up to the present time.” Dr. Acland does indeed speak of the many and important questions, regarding the general, scientific, and practical education of medical men, that are waiting to be settled. But he appears still, after all the years the Council of Medical Education has been in existence, to deprecate any decisive or positive action. General education and medical knowledge, he says, are in such a transitional state that they will long require constant watchfulness and care, and much interchange of thought and experience between

the teachers and examiners of various schools of this and of other countries, and he tells us why the Council has not done more already. A great deal is, Dr. Acland admits, needed, and he says that "a future of the deepest interest lies before the Council as a great educational institution, if only it can be saved for some years to come from the distractions forced upon it from without." The great distraction having been hitherto "caused by discussions on the machinery for performing its duties, and on the merits of its own constitution, with which clearly it has, as long as it exists, nothing to do, and by which it has been disturbed and hampered in its deliberations for a period as long as the siege of Troy."

We can hardly believe that many members of the Council will adopt the excuses thus offered by their President for their delays in dealing with the most important of all the subjects that they have to decide upon, or will be willing to accept the rôle of men prevented by such distractions as the President speaks of from fulfilling the duties they were appointed to discharge as members of the General Council of Medical Education. The Council is on its trial; and it is now certain that judgment will not be passed upon it this year at any rate. It is said that the Select Committee of the House of Commons on the Medical Bills and the constitution of the Council have decided already to present to the House this year only the evidence taken, and to defer their report; and no one would be rash enough to expect, whatever may be hoped, that any Medical Act will be passed next year. The Medical Council have, therefore, many months before them which they may wisely use in steadily and decisively dealing with the whole subject of the education of the medical student, and thus in more fully and clearly justifying their existence, and the principle upon which the Council was, as a body, constituted.

THE SELECT COMMITTEE ON MEDICAL REFORM: THE EVIDENCE OF DR. GLOVER AND OF SIR JAMES PAGET.

THE Select Committee of the Commons on the Medical Act Amendment Bill has held two meetings since our last week's report. The first of these sittings took place on Friday, July 11, and was wholly devoted to the examination of Sir James Paget. The second meeting, held last Tuesday, was occupied with the hearing of evidence from Sir Dominic Corrigan. A detailed report of these meetings our readers will find, as usual, in another column. The Committee holds another meeting to-day (Friday).

The evidence of Dr. Waters and of Dr. Glover, reported in our issue of last week, we found to be markedly different, especially in reference to the constitution of the General Medical Council, and the character of the work done by that body, from what had been furnished by the preceding witnesses. But, after these two discordant blasts, the monotonous chorus of complacent satisfaction with everything pertaining to the Council and its work was resumed by the next witness examined—Sir James Paget,—who added really little of importance, beyond the weight of his own much-respected opinion, to the statements of Dr. Acland, Mr. Simon, and Dr. Quain, who have all three had much longer experience of the doings of the Council than the present able representative of the English College of Surgeons.

We were unable to comment on the evidence of Dr. Glover last week. Before proceeding to do so now, we would recur for a moment to our remarks on Dr. Waters' (i.e., the British Medical Association's) scheme for the direct representation of the profession in the Medical Council (pages 34-35). We intimated our firm belief

that the practical difficulties attendant on a scheme of universal suffrage affecting a profession whose members are so numerous and so widely scattered had never been realised by the promoters of the measure. Dr. Waters mentioned that the proposal was that an election of six such representatives should take place once every five years, and we ventured to point out that vacancies might occur frequently during the quinquennial periods. Now, we understand—although this point was not brought out in the ordinary reports of Dr. Waters' evidence—that in the case of such vacancies the proposal is that they be filled up by the nomination of the Medical Council itself. This very fact, we think, is a tacit admission that election by general suffrage of the profession is felt by its own promoters as likely to prove so very troublesome a procedure, that even they see the advisability of having recourse to it as seldom as possible. We have frequently and persistently expressed our belief that no great harm, and possibly some good, might accrue to the Council by the admission into it of a few representatives of the mass of the profession, but that the general suffrage of the profession would be about the very worst method of election. There are two other, and better, methods. The first is by enlarging, where necessary, the electoral board of each licensing body, so that for the election of the representative to the Medical Council it shall include *all* who hold qualifications from that body. In this way direct representation would be secured by a simple process, ready to hand. In some of the universities the electoral constituency of the Medical Council representative is already even wider than we have indicated, including not merely medical, but also other graduates. Dr. Waters objected to this method, that however wide the constituency might be made for each corporation, the representative would still be the representative of that corporation as distinct from the profession. But this objection falls to the ground at once when it is considered that if the general practitioners really have any interest separate from those of the licensing bodies, their numbers will enable them to elect what representatives they please in the case of all the corporations at least, if not in the universities. The second method of sending up representatives of the mass of the profession is by a judicious selection of the Crown nominees, whose number might, we think, be advantageously increased, either absolutely or relatively to the other members, so that all important interests and branches of the profession might have a mouth-piece. These two methods, working together, would not only provide a better Council than any other plan is likely to do, but would do so, at the same time, without any of the turmoil and tumble which are admitted to be inseparable from the proposed election by general suffrage.

Dr. Glover's criticism of the doings of the Medical Council was even more severe than that of Dr. Waters. The former's strictures were the more telling because he was able to cite specific instances of weakness, vacillation, and failure in justification of his estimate of the Council's proceedings. Dr. Glover justly considered the supervision of medical education as the most important function of the Council, and though he was ready to admit that some good had been effected in this respect, he thought the result was entirely out of proportion to the time and money spent upon it. His main charge on this score was, that while it had greatly increased the stringency of the examinations, the Council had done very little in the way of effecting a corresponding improvement in the education and professional training of the candidates. In this way he thought the increasing number of rejections, especially in the case of licensing boards whose pass standard was not generally regarded as very high, might be explained. The Council had issued certain recommendations from time to time to the teaching bodies, but as the Council had no power to

enforce their suggestions, the schools had gone on much as they pleased. The Council, moreover, had stultified itself in certain cases by sanctioning very different measures of teaching at different periods in its short history. Thus, in regard to the subject of midwifery, so important to the general practitioner, the Council had given its approval to the details of the proposed Conjoint Board for England, which required only a three months' course of instruction in midwifery, whereas ten years ago the Council had strongly urged the advisability of the adoption of a six months' course in that subject. And, in regard to the whole subject of medical education, though the Council had, at its first sitting in 1859, held out hopes of formulating at once a complete scheme of medical education, such a scheme had never yet been presented, although twenty years had elapsed, during which time, too, the attention of the Council had been again drawn very specially to the subject at least twice, on the one occasion by Dr. Parkes, who gave his experience of the ignorance then manifested by some of the candidates for the Army and Navy Medical services; and again in 1876, when the reports of the visitors to the examining boards demonstrated the fact that preliminary and professional education was, in so many instances, below the desirable standard of proficiency. The Council had, indeed, appointed committees on educational matters from time to time, but either the reports of such committees had been practically disregarded, or the recommendations based upon them had, as usual, proved a dead-letter in the hands of the teaching bodies.

Now, we think there can be little doubt of the justness of much of the above criticism of the Council, though many will be inclined to excuse the Council on the ground that it had no actual power to enforce its recommendations on the teaching and examining bodies. But Dr. Glover further blames the Council for refraining from asking to be invested with such power when they saw their behests were treated with such disrespect; and he also accuses them of distinctly declining to be invested with the necessary authority when it was proposed in the Government Bill to make them all-powerful in regulating the curricula and examination of students. We cannot agree entirely with Dr. Glover in this last criticism. Whilst it would be quite proper, in the interests of the public, that the Medical Council should have paramount power in regulating the minimum curriculum and the minimum standard of examination, we think it would be far more satisfactory if the different teaching and examining bodies arranged for themselves the details of the curricula and examinations necessary to secure their different diplomas, many of which would, it is hoped, be of a higher rank than the minimum qualification, and would necessarily vary somewhat in accordance with the traditions and teaching capabilities of the different bodies.

The two great suggestions which Dr. Glover had to make were, first, to alter the constitution of the Council, and secondly, to make it at the same time an authoritative, and therefore a responsible body. We have already seen his reasons for the latter proposal. In regard to the constitution of the Council, Dr. Glover was confident that the eminence of the present members was in itself, in some respects, a hindrance to their appreciation of the interests of the mass of the profession. But his strongest objection as to constitution was to the predominance in the Council of the representatives of the corporations. He thought the history of the Council showed clearly that the corporation influence, as distinct from the university influence, had retarded the work of medical education, and he boldly proposed that certain of the licensing boards should be entirely disfranchised. He instanced the Apothecaries' Hall of Ireland, the English Apothecaries' Society, and the Faculty of Physicians and

Surgeons of Glasgow. We entirely agree with Dr. Glover that the occupation of seats in the Council by these bodies is indefensible, especially in view of the fact that the great teaching universities of Scotland have each only half a representative.

Dr. Glover was clearly of opinion that the Council should contain men familiar with the experiences of the general practitioner. He thought there would not be so many difficulties in the machinery of direct representation of the profession as had been alleged, but he would be satisfied if the Crown took care to appoint such representatives. We have explained above our views on the subject. Dr. Glover was so satisfied of the necessity for a change in the constitution and powers of the Council to prevent a perpetuation of the aimless and helpless procedure that has characterised its history thus far, that he thought legislation should be postponed if it did not provide for such a reform.

With regard to the proposed Conjoint Scheme, Dr. Glover thought the proposal would be a decided improvement on the present system, though he should prefer to see established by the Medical Council a licensing board in each division of the kingdom, quite independent of the existing corporations. He pointed out several important objections to the conjoint board system, such as the difficulties about fees, etc. He also considered it an objection of the conjoint scheme that it contemplated the maintenance of all the different licensing bodies, though the very essence of the case is that they are too numerous, and not at all adapted to the requirements of the present day. Still, failing the establishment of independent licensing boards, he would accept the proposed conjoint boards if they could be satisfactorily arranged, and if the Council were invested with power to make them thoroughly efficient. We shall, however, have somewhat to say elsewhere on this subject of proposed conjoint boards, for the longer the matter is considered, the more insurmountable do the practical difficulties appear against their adoption. Surely a less objectionable and less cumbrous method could be devised of ascertaining the minimum grade of proficiency of everyone who wishes to be admitted on the Register.

With regard to the Register, Dr. Glover was fairly well satisfied, though it was not free from inaccuracies. We agree with him in thinking that too much fuss has been made about the satisfactory manner in which the Council has discharged its registration duties. As Dr. Glover remarked, it surely did not require a Council of twenty-four eminent men to make a Register. Dr. Glover thought the Council ought to be more jealous of the honour of the Register by showing a disposition to punish those who wrongly pretended to be registered, and those who abused the privilege of registration.

We have left ourselves little space for commenting on the evidence of Sir James Paget at present. Comment, however, is the less necessary in his case, because, as we have already hinted, he added nothing of importance to the evidence of Dr. Acland, Mr. Simon, and Dr. Quain, with whose statements he, in general, fully concurred. He has only had three years' experience of the work of the Medical Council, but he felt satisfied with its constitution and work, and deprecated the proposals for direct representation. He also advocated the adoption of a conjoint examination board for each division of the kingdom. He admitted that it was a defect, that anyone could be allowed to practise medicine with a single qualification such as that of the College of Surgeons of England, which did not test the candidate's knowledge in so important a subject as midwifery. He thought, however, that practically the harm was not great, because very few persons now practise with a single qualification. On this question of fact we would respectfully beg to join issue with Sir James, as we know personally of many practitioners in England

who hold only the membership of the College of Surgeons or the licence of the Apothecaries' Society. But over and beyond this, it is one of the most unfortunate traditions of medical education in England that two different qualifications should be necessary at all to secure the competence of a man for general practice. But this is a broad view of the subject which those who have never been accustomed to any but London ideals of medical qualifications are apparently unable to appreciate.

Sir Dominic Corrigan gave evidence before the Committee on Tuesday last. His answers (reported in another column) were given with characteristic point and happiness of illustration. But we must defer comment upon them until next week.

THE RICHMOND MURDER.

WE have been again favoured this week with one of those statements which the prisoner Kate Webster seems determined to indulge in to the last—with what end in view, it is hard to say, and it is almost as difficult to conceive any good reason for the publication of a document which, on the very face of it, is as untrustworthy as any which preceded it. Not only so, but it does great injustice to one whose name does not appear, but which those who are acquainted with the convict's antecedents will not be slack to supply. The prisoner appears as if possessed with a mania for making statements, and it will be a curious subject for inquiry to determine how the case would have stood had she persistently held her tongue.

Let us try to follow out this line of inquiry. On the morning of Wednesday, March 5, a box tied round with a cord was found resting on the banks of the Thames, near Barnes, and on being opened was found to contain human remains, which were conveyed to Barnes Mortuary. These were then superficially examined by a local practitioner, who, moved perhaps by a report that a young person was missing, said he thought they were portions of the body of a female under middle age. Subsequent and more careful examination, however, sufficed to show that the body was that of a person considerably over middle age, though not a little difficulty was experienced in this respect from some of the most important parts, especially the head, being amissing. The fact of the discovery and its strange nature were speedily noised abroad, and before long reached the ears of a workman named Porter, residing at Hammersmith, and his family. The story he had to tell was a strange one. It was to this effect: On Tuesday, March 4, about four or five in the afternoon, a woman, who had been known to them some years before as a neighbour, called at Porter's house nicely dressed and wearing a watch and chain. She gave the name of Mrs. Thomas. She stated that, though she had been a domestic servant when known to them, she had since been married, and that she had a nice home at Richmond; that property had been left to her by an aunt, and that she thought of selling most of it off, and going to her father, whom she described as well-to-do. She appeared to be taken with a sudden friendship for the Porters, calling them "father" and "mother," and remained at their house for some time. She had with her a black bag, which was rather heavy, and with which in her hand she left Porter and his boy at a public-house near Hammersmith-bridge, saying she had to meet a friend at Barnes. She was gone about twenty minutes, and returned without the bag—in point of fact, it has never since been seen. The prosecution suggested that this contained the head and perhaps other portions of the same body as was discovered on the 5th; but of this there was no clear evidence. That evening Porter's boy returned with Webster to Richmond, where she entered the house of which she said she was

mistress, and, with the help of the boy, removed a corded box (similar in all respects to that discovered next morning at Barnes) to Richmond-bridge. On to the bridge she went alone, sending the boy away, who as he went, however, heard a splash as of something flung into the water, and was speedily joined by the *soi-disant* Mrs. Thomas. They went to the station, but the last train had gone, and they remained at Richmond all night. Next morning both went to Hammersmith. Next followed some rather curious transactions. The woman declared that she wanted to sell her furniture, and was introduced by Porter to, of all others, a publican, who does not seem to have been in the way of conducting such kind of business on any previous occasion. This man (Church) visited Richmond, viewed the furniture, and agreed to buy it for £68, of which, apparently on the security of certain silver and plated goods deposited with him, he advanced £18. Church and Porter proceeded to remove the goods thus purchased, and whilst so doing, the landlady, who lived next door, inquired what was going on, and where the goods were going to, and the woman Webster went to speak to her. For some reason, not altogether intelligible, Church seems to have become suddenly alarmed—why so, does not appear—ordered the goods already moved to be returned, and started off home. Webster had been there before him, had borrowed a sovereign from his wife, and had already left. Some dresses Webster had left in the van were hung up in Church's house, but not examined until some time after, when, on searching the pockets, several articles were found, among others a letter addressed to a gentleman named Menhennick. Suspicion had by this time been more fully aroused, and Porter and Church called upon this gentleman, when they found that the description of the true Mrs. Thomas did not in the slightest correspond to that of the person whom they knew by that name. The police were communicated with, and in the result it turned out that the true Mrs. Thomas was not to be found. The police discovered all the goods in the house disturbed, the marks of washing upon the kitchen floor, and on closer examination some half-consumed bones. These were subsequently examined by Mr. Bond and identified as human. They were in no instance duplicates of the parts found in the box, nor did they even, though a foot supposed to belong to the same body was found at Twickenham, make up the whole of a human subject; parts were and still are missing. The real Mrs. Thomas was and is missing, and the conclusion come to was that she had been murdered. The last time she was seen alive was on Sunday evening, March 2, at the chapel which she frequented; she appeared somewhat excited, and left before the conclusion of the service. The people next door to her house, who all gave their evidence in a somewhat hysterical manner, said that that night they heard a heavy fall, though of what value this is does not appear. Of more consequence is the fact that next morning there were signs of washing going on in Mrs. Thomas's house, and also that a most unusual smell proceeded from the chimney. The theory of the prosecution was that Mrs. Thomas was murdered on Sunday evening, March 2, or early on the morning of the 3rd, that this was done by Kate Webster, who subsequently cut up the body and attempted to get rid of it in various ways, partly by fire, and partly by boiling, which failing, the whole was dispersed in various fashions, but mostly in the box above referred to.

Now the police were face to face with the following difficulties. Mrs. Thomas was missing—true, but they had to prove that she was murdered. A box of human remains had been found; they had to prove they were those of Mrs. Thomas. This never has been done. The only thing proved clearly was that the box was exactly similar, if not identical, with one which Mrs. Thomas was well known to possess,

and that the cord was similar to some found in her house. Moreover, such a box had been carried away the night before from Mrs. Thomas's house, and seemingly thrown into the river. Thus there was a high likelihood that if Mrs. Thomas was murdered, the remains were a portion of her body. But still there was no sign to show this clearly; no mark or malformation of the body which could be relied upon. True, the finding of human bones in a half-consumed state in Mrs. Thomas's house, which corresponded to missing portions of the body found, was a most material fact. So also was it that the apparent age of the person whose body had been cut up would correspond with that of Mrs. Thomas. But there we end. Of the foot found at Twickenham it could only be said to belong to the corresponding side of the body to that which was missing. Thus, as we have said, there was no real, logical proof that the body was the body of Mrs. Thomas, or even that Mrs. Thomas was dead at all. But there was enough for men of sound common sense; and if we waited on every occasion in daily life for strictly logical proof of everything, we should do little all our lives.

So, too, of the murder. There was no logical proof of that, for some spots of blood could not go for much. But we have a woman missing; another going by her name, and acting in her capacity, wearing her clothes, watch and chain, even selling her false teeth as well as her furniture; the remains found as above described, especially the half-burned human bones in her own kitchen. All these constituted a chain of evidence not by any means unbroken, or, taken piece by piece, individually strong, yet to common-sense men strong enough for the purposes of conviction.

What next of the facts connecting Webster with this murder? First of all there were the three great points—time, place, opportunity. She, as servant, was in the house on the Sunday night, and alone with her mistress. She subsequently assumed the name and status of her mistress, and she stated that her mistress had gone away—which she knew was not true. There was her mistress' property dealt with by her, even to the sale of the furniture; above all, there was the fatal box. Practically, therefore, the only question to be decided was, whether she was alone in the committal of the crime, or if she was associated with others? On her capture, she promptly accused Church of having committed the murder, and Porter as being an accessory. Fortunately for Church, for once an *alibi* was found a good defence, and he was set at liberty. For his imprisonment he had himself to blame; his conduct was, to say the least, suspicious; and even on the trial of this wretched woman his evidence was very far from satisfactory. Now she says that neither Church nor Porter had anything to do with it. This is so far well; but even were it not so, there can be no doubt of the guilt of Catherine Webster. On February 25, nearly a week before Mrs. Thomas disappeared, in conversation with a friend at Kingston she said that an aunt in Birmingham was about to leave her some property. Surely this shows what she had in her mind. After being taken into custody she never attempted to conceal that she was accessory, if not to, certainly after the fact of, Mrs. Thomas's death. Her accusations of Church and Porter are by her own admission a tissue of lies, but the work of the public prosecutor was considerably hampered by having to deal with the question whether others than Webster were concerned in the murder, especially as regards Church; whilst the main endeavour of the prisoner's counsel seemed to be not to procure the discharge of the prisoner, but to secure a verdict of something less than actual murder. In face of what she herself had said, anything else would have been impossible.

The case exhibits well the value of a system of law which

exalts common sense above logic. Logically, as we have seen, the case would have broken through; but common sense repudiated this view of it, and insisted on conviction. There was, however, one feature in the case which struck us forcibly at the time; it occurred during the examination of the prisoner, but was not referred to at the trial. It was a small point—one which could not have had very much influence,—still, it was of some value. It was a question of the identity of the half-burned bones found in Mrs. Thomas's house. They were not delivered personally to Mr. Bond; they were placed in his consulting-room, accessible to all comers. They remained there in an unprotected state for a considerable time before examination. How could their identity be proved? Should medico-legal matters be managed in this slipshod way?

THE WEEK.

TOPICS OF THE DAY.

A NUMBER of the managers of the Metropolitan Asylums Board, including Dr. Brewer, the chairman, Mr. Albert Pell, M.P., Sir E. H. Currie, Surgeon-Major Bostock, C.B., Dr. Case, Dr. Adams, and many others, recently paid their first annual visit to the Darenth Asylum for Imbecile Children. This Asylum, which it will be remembered is built on a hill overlooking the valleys of the Thames and Darenth, was completed for occupation only last year, and thus far has been found to answer all requirements. It utilises its own sewage, makes its own gas, pumps its own water, and grows part of its own food; and the farm-buildings attached are calculated to be able to meet not only the wants of the present institution, but those also of the new asylum for imbecile adults which is being erected in close proximity. The visitors were conducted over the building by Dr. Fletcher Beach, the medical officer; and the only exception taken to the generally admirable arrangements was the construction of open corridors. These corridors, it was stated, were insisted upon by the Local Government Board, in consequence of one of their inspectors having noticed them in a similar building in Berlin, but they were universally admitted to be altogether unsuitable in a building erected on a Kentish hill. About 420 of the children were seen by the members of the Board, and the result of the year's experiment recorded was fairly satisfactory; some small percentage of the inmates have been cured, and many others have been trained into usefulness in various directions. The process is necessarily slow and expensive, but enough has been achieved to justify the continuance of an experiment which the present visit has proved to be fairly successful.

A Bill has been introduced into Parliament by Dr. Cameron, which seeks to obviate the objections raised in many quarters to vaccination, on the ground that, if the lymph has been obtained from an unhealthy child, some maladies may unintentionally be communicated along with the cow-pock. The Bill imposes on public vaccinators the duty of vaccinating a child with animal lymph whenever its parent, or the person having charge of it, requires them to do so. The Local Government Board is directed to take such measures as may from time to time be necessary to secure for the public use a supply of animal lymph, and to provide for its distribution to public vaccinators and medical practitioners, the cost of such measures being defrayed out of moneys provided by Parliament. A maximum penalty of three months' imprisonment or of a £50 fine is imposed on those who knowingly supply or use as animal lymph for vaccination anything that is not so. Animal lymph is defined as being vaccine lymph, either fresh or preserved, obtained directly from cow-pock vesicles upon a calf or

heifer, and derived by propagation through a series of calves or heifers from virus obtained from a case of natural cow-pock.

The sanitary condition of the East-end of London is considerably prejudiced by the wholesale devastation of homes for the working-classes, which, up to the present time, have not been replaced by the Metropolitan Board of Works. At a recent meeting of the Whitechapel Board of Works, their sanitary inspector called attention to the condition of the poor in some parts of Spitalfields. Nearly all the cases of fever reported were amongst foreigners, whose rooms were used for living, working, and sleeping in, whole families being crowded into one apartment. In a room in Curtain-street, at a house let out to many families, three cases of fever were discovered in the family of a man who worked as a tailor for a large firm in the City, and carried on his employment in the room. In a small room in a house in Gun-street the inspector found the body of a woman who had been dead several days, the husband living and sleeping in the same apartment. The man stated that he was waiting for his friends to assist him to bury his wife, as he had a dread of going to the parish authorities. In Bath-place no fewer than seventeen houses were found to be actually unfit for human habitation. The Board issued the usual orders for the suppression of the nuisance and overcrowding; but until more accommodation be provided, it is only driving the poor out of one place to find them presently unduly packed together in another.

A singular case of poisoning was the subject of a coroners' inquiry at Huddersfield last week. The husband of the deceased woman called upon a chemist at Huddersfield and asked for some chalk "in powder," his wife being in the habit of taking it for heartburn. Through some misunderstanding he was supplied with French chalk, which is largely used by shoemakers. The woman took a portion of the powder, and the next morning she was seized with pains, accompanied by excessive vomiting. The doctor who attended her regarded the sickness as nothing unusual, she being pregnant, and after a child was born merely administered a sedative. The woman appeared better, but two days later she died, and a post-mortem examination revealed appearances of arsenical poisoning. In the meantime, it had been found by analysis that the chalk supplied contained as much as 40 per cent. of arsenic. The chemist showed by the production of an invoice that he had bought the chalk from a firm in Manchester, and he asserted that, if it had been genuine, it could not have produced such lamentable results. The jury returned a verdict of "Death by misadventure," and at the request of the coroner the Chief Constable undertook to communicate with the Manchester police on the subject.

The latest phase of opposition to the settlement of the Thames Valley Drainage Scheme is reported from Kingston, where a large public meeting was held last week to discuss the action adopted by the Sewerage Board in re-introducing Colonel Haywood's scheme for establishing a sewage farm at East Molesey. Mr. F. Gould spoke for nearly two hours, and alluded to the fact that the Queen had given her assent to Claremont being occupied by Prince Leopold, as an additional reason why such a plan should not be carried out. He concluded by moving that a memorial to the Local Government Board be prepared, setting forth the reasons why the Joint Board should not be allowed to exercise borrowing powers, nor raise money for the purchase of land and the erection of works for sewage disposal, or to do any other act for carrying out the Molesey scheme, unless a public local inquiry was first held. This resolution was duly seconded and carried. "In the multitude of councillors there is wisdom," we are told—but, all the same, will the Thames Valley ever have a drainage system?

The recent unfortunate death from glanders in St. Mary's Hospital has roused the inspectors of the Metropolitan Board of Works to a common-sense view of their duties, and last week, at the Wandsworth and Hammersmith Police-courts, several persons were summoned for having glandered horses in their possession without giving the necessary information. Mr. Paget, the magistrate at Wandsworth, told one of the defendants "that a glandered horse was more dangerous than a mad dog"; and it is perfectly monstrous that this loathsome disease should have been allowed to exist in the number of cases only now brought to notice, with all the risks which each one entailed upon the community at large; and it is to be hoped that the appointed inspectors will exercise a greater degree of vigilance for the future. In some of the cases the magistrates inflicted the full penalty of £20 with costs, and in others the fine was reduced to £10 also with costs.

In the face of the pressure put upon the Metropolitan Board of Works to carry out to their completion the works undertaken under the Artisans' Dwellings Act, the sub-committee of the Board recently recommended that the offer of the trustees of the Peabody Donation Fund to purchase certain of the sites be accepted. The offer is to purchase the Whitechapel and Limehouse site for the sum of £10,000, and the freehold of the following sites—namely, Bedfordbury, Great Wild-street, Peartree-court, Whitecross-street, and Old Pye-street, at twenty years' purchase upon a rental of 3d. per superficial foot. Although the Act in question gives the Board power to pull down unhealthy dwellings, it leaves them powerless to build; they can only offer the land for sale on condition that buildings be erected for the accommodation of the working-classes. The offer of the Peabody trustees, though anything but a paying one, is the best that the Board can get, and, under the circumstances, it would perhaps be as well for the interests of the labouring classes of the metropolis that it should be at once accepted.

At the annual general meeting of the Swansea General Hospital, recently held, a subscriber, Mr. W. C. Amery, called attention to the increased expenditure for stimulants, which he considered excessive, and in replying to him Dr. Paddon, one of the physicians to the Hospital, said, as one who had been for a very long time connected with the institution, that he had always ordered, and would continue to order, what he believed in his conscience to be the best for the patients he attended. Mr. Amery, like many others, appears to have been much impressed with the recent report of Dr. Webster on the expenditure for stimulants in the St. George's Infirmary; but it should be remembered that the system adopted at this Infirmary is only, at present, an experiment, and that, moreover, there is a vast difference in the class of patients treated in general hospitals and work-house infirmaries. Altogether this is a question which it will be found much safer to leave in the hands of medical officers themselves, who can have no object in promoting an undue expenditure for stimulants in the treatment of the sick.

One of those distressing cases which do so much harm to our profession has again cropped up. A person calling himself Francis James Hammond, according to some of the papers an F.R.C.S., at all events residing in a house, albeit in Drury-lane, having this escutcheon—"Surgeon and Accoucheur"—over the door, has been arrested on a charge of attempting to procure abortion. The details are, as usual in such cases, unsavoury. It is at least a comfort to find that the man's name is neither in the "Medical Directory" nor on the Medical Register.

THE PROPOSED VICTORIA UNIVERSITY.

The following memorial against conferring the power to grant degrees or licences in medicine or surgery to the

proposed new Northern University is being circulated among the teachers in the medical schools of the metropolis and the provinces, and has already, we understand, received 100 signatures:—"To her Majesty's Most Honourable Privy Council.—We, the undersigned teachers in the London and provincial medical schools, consider it undesirable that the power of conferring degrees or licences to practise medicine or surgery should be granted to the proposed Victoria University on the following grounds:—First, that there already exist nineteen such corporations; second, that the competition, arising out of this number of licensing bodies, is detrimental to the public and the medical profession as tending to lower the standard of medical qualification; third, that the Manchester School of Medicine has no superior claims over other schools in London or the provinces which can entitle it to such a special distinction as that of conferring degrees to practise medicine or surgery."

COLLEGIATE EXAMINATIONS.

THE following are the statistics of the Primary and Final Examinations at the Royal College of Surgeons of England during the collegiate year 1878-79:—

Membership—	Candidates.	Referred.	Passed.
Primary	785	255	530
Final	509	164	345
Fellowship—			
Primary	95	47	48
Final	28	10	18
Dental Surgery	40	12	28

Since the last report the rolls of the College have had added to them the names of 361 new members, of 18 new Fellows, and of 28 new Licentiates in Dental Surgery. Moreover, two Fellows have been admitted by election under authority of Sections 1 to 5 of the Charter of 1852, and in conformity with Section 23 of the By-laws; and during the year death has removed 41 names from the roll of Fellows, and 227 from the roll of Members.

NEW TERRORS.

WE have had occasion to notice the death of some little boys. Nothing was found to account for their sad end except that the earth-closets were in a bad state. Whereupon Mr. Bond suggested that they had died of sewage-gas poisoning. Perhaps so; but who can tell? If every case of sudden death can be thus easily and satisfactorily accounted for, there is good luck in store for those who can "manage" deaths quietly. But this is not all. Certain of the officers of the *Tamar* troopship were recently taken ill after eating cold pigeon-pie. One of them died. The stomach was examined, but nothing deleterious was found. We are not even certain there were even the remains of the pigeon-pie. At all events, the matter was fully investigated at Netley, and we are now favoured with the full exposition of a theory which teaches that pigeon-pie may be very wholesome hot, but murderous cold. We now shudder to contemplate the position of unfortunates invited to a cold luncheon, or a picnic—were such a thing possible in such a season. What! debarred from cold pigeon pie—the least harmful, as has been supposed, of cold dishes! That succulent, dainty pork pie is suspicious of trichina; so is the ham, which comes from America; the cold beef is hard or tainted; the lamb is dried up and uneatable. No, if there is no pigeon-pie to be had without the risk of poisoning, we at least shall stop at home and starve comfortably with our fellows.

DEATH FROM HYDROPHOBIA IN LIVERPOOL.

WE have received the following piece of information from Liverpool:—An inquest was held yesterday by the borough coroner touching the death of Josiah Howard, aged eleven years, son of a joiner living at 144, Miranda-buildings,

Braemar-street. On May 26 the deceased was bitten by a dog, which has since been destroyed, belonging to Jacob Miller, who lives at 79, Braemar-street. The boy was taken to the Stanley Hospital, and in a few days the wound healed up. On Saturday night, however, he complained of pains in his back, and became very restless. He grew worse on Monday, refused to take anything to drink, and screamed loudly at the sight of liquids. A doctor was called in, and the boy was again taken to the Stanley Hospital, where he died shortly after five o'clock on Tuesday morning. Mr. Twinem, House-Surgeon at the Stanley Hospital, said the cause of death was undoubtedly hydrophobia, and the jury returned a verdict to that effect. Curare was injected with the effect of paralysing the reflex irritability of the cord, but the child sank exhausted.

MEDICAL REPORT ON THE SEAMEN'S HOSPITAL, GREENWICH.

IN publishing his report of the cases which came under treatment at the Seamen's Hospital, Greenwich, during the year 1878, Mr. W. Johnson Smith, the Senior Resident Medical Officer, explains that the reduced number of admissions—viz., 1549, as against 1882 in the year 1873—is accounted for by the fact that the Committee of Management have decided that, in future, applicants suffering from such forms of venereal disease as are not disabling or very severe shall be treated as out-patients, and not as hospital inmates. As a natural consequence the number of out-patients has increased from 2786 in 1876 to 3004 during the year under notice. The admissions for scurvy during the year were greater than in 1877, and just double the number received in 1875; but the result still proves that the legislation of 1867 has had most satisfactory results, since thirteen only of the thirty patients admitted were brought from British vessels. During the past four years there has been a decided and progressive decrease in the number of cases of pyæmia. In 1875 the number of deaths from this cause has fallen from ten to seven; in 1876 there were six deaths; in 1877, four; and in the past year only two. In one of these latter the fatal result followed resection of the knee of a seaman much exhausted by suppurative disease of the joint; in the second case the pyæmic symptoms were manifested soon after external division of an old stricture in a patient aged forty-seven years. This falling off in the mortality from these formidable hospital affections may, Mr. Smith thinks, be fairly attributed in great part to the antiseptic treatment of surgical cases, which was first adopted in the Hospital in 1874, and has since been steadily followed. In consequence of the increased proportion of severe cases received into the Hospital, it has been decided to bring about an improvement in the system of nursing, and, in order to insure the services of experienced and efficient nurses, to receive women as probationers, and to train them for hospital work.

PRIZE FOR AN ESSAY ON DIPHTHERIA.

THE German Empress has offered a prize of 2000 marks (£100) for the best essay on Diphtheria. The conditions are, that the writer is to bring forward important *new* facts as to the essential nature (*das Wesen*) of the disease, especially with regard to the infectious matter which propagates it, its dissemination, and the means for arresting its progress. The essays may be written in German, English, or French, and must be sent to Professor v. Langenbeck, Berlin, N.W. 3 Roonstrasse, on or before December 15, 1880. The Committee which will award the prize consists of Professors Klebs of Prague, Liebreich and Virchow of Berlin, von Nägeli and Oertel of Munich, and Thiersch of Leipsic. Each essay is to have a motto corresponding to a similar motto on a sealed envelope containing the author's name.

DR. CAMERON ON AN EPIDEMIC OF FEVER CAUSED BY
INFECTED MILK.

THE *Dublin Journal of Medical Science* for this month contains an original communication from Dr. Cameron, Medical Officer of Health for Dublin, "On an Epidemic of Fever caused by Infected Milk"; and also some particulars of a discussion on this paper, which took place at a meeting of the Medical Society of the College of Physicians in Dublin. We have already drawn attention to Dr. Cameron's conclusions, and now wish to refer to the above-mentioned discussion. Dr. Lyons gave his reasons at some length for believing that Dr. Cameron had been mistaken in attributing the origin of the epidemic to the dairy in question, the occupants of which, he asserted, had not suffered from typhoid fever in the strict acceptation of the term; and, in conclusion, he expressed his regret that Dr. Cameron had alarmed the public by bringing forward this subject. Dr. Foot maintained that not a shadow of proof had been given against the existence of typhoid fever in the locality referred to. Ample evidence had been given by Dr. Murchison of the fact that typhoid fever was communicable by milk, and he considered that no hypothesis but that of Dr. Cameron accounted for the epidemic of typhoid fever in the district in question. Dr. Grimshaw, after commenting upon Dr. Cameron's statements, admitted that the circumstances were suspicious, but he did not think that the evidence established that the dairy in question had infected all the people who were mentioned, and he thought that the Society should come to the Scotch verdict of "not proven." Surgeon-General Crawford suspected that the very imperfect drainage of affected districts ought to be considered responsible for the outbreak which Dr. Cameron had attributed to the milk; and Dr. Hayden considered that the evidence of the poisonous nature of the milk was not sufficiently conclusive to warrant them in attributing the epidemic to its agency. Dr. Nixon, who went very fully into the subject, concluded his remarks by declaring that there was no evidence whatever of the pollution of the milk with the virus of typhoid fever. He was not prepared to say that none of the cases of illness recorded were due to the use of milk containing sewage or other impurities, just as malaise, fever, and prostration may be produced by drinking bad water, or breathing foul air; but to the question of an epidemic of typhoid fever arising from this cause he would certainly return the verdict of "not proven." Dr. Hawtrey Benson, on the contrary, thought that Dr. Cameron had proved that there was fever in the dairy, and that it had been communicated. Dr. Chapman said it would be wrong to say that the milk from this dairy caused all the illness; it might have caused some of it, but not all. The sanitary condition of Dublin was far from what it ought to be; at the same time he thought that there was something more than accident in the way in which the persons who used milk from this dairy had been attacked. After some remarks from Drs. MacSwiney, Charles F. Moore, and Hugh Kennedy, Dr. Kelly mentioned a case to the meeting which had occurred in his practice, bearing out Dr. Cameron's views. The Chairman (Dr. James Little, Vice-President of the Society) said he thought the case of the father and child attacked at this dairy were distinct, and that the child had had typhoid fever. A great number of the cases cited by Dr. Cameron did not present the typical phenomena of typhoid fever; but it was admitted on all hands that the typhoid poison was capable of producing symptoms of every degree of intensity, from very slight to very severe; therefore it did not invalidate his arguments to show that those cases did not present the typical phenomena of typhoid fever. Dr. Lyons had said that he had been very much refreshed by milk from the dairy in question, and that he did not get typhoid

fever; therefore, he argued, there was no contagion in it. As well might they argue that there was no contagion in small-pox because physicians in small-pox hospitals did not get it. Dr. Cameron, in reply, said that not a single one of the statements that he had made in his paper had been substantially rebutted. It was no part of his case to prove the precise nature of the fever that occurred in the dairy; and while he admitted that the houses in which the epidemic occurred were all in a bad condition, he could not help calling attention to the fact that it must have been more than accident that all the houses in which fever occurred were supplied with milk from the dairy referred to.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF
MEDICAL MEN.

THE quarterly Court of the Society was held on Wednesday, July 9, at eight o'clock, Sir George Burrows, Bart., President, in the chair. Sixty widows and fourteen orphans were receiving grants amounting to £1296; three orphans on the Copeland Fund were voted £6 each. The expenses of the quarter amounted to £47 17s. Two additional widows and two orphans were admitted as recipients of grants. The death of one widow and the marriage of another were reported. Two new members were elected, and two deaths of members were announced. A memorial was read from the Midland Branch of the British Medical Association, asking the directors to extend the benefits of the Society so as to embrace the Midland Counties. The directors resolved that—"The Court of Directors regret that at present they do not see the possibility of extending the operations of the Society in the mode suggested by the Midland Branch of the British Medical Association. The Court will, however, be happy to receive any definite propositions from the Midland Branch which will tend to make their application more feasible." At the suggestion of the President it was resolved that the hour of future meetings should be changed from eight o'clock to five p.m.

THE BRITISH MEDICAL ASSOCIATION AND SURGEON-MAJOR
J. H. REYNOLDS, V.C.

At a meeting of the Committee of Council of the British Medical Association, held at the office of the Association, 161, Strand, London, on Wednesday, July 9, 1879, Alfred Carpenter, M.D., President of the Council, in the chair, it was moved by Dr. Sieveking, seconded by Surgeon-General Maclean, and resolved unanimously—"That in consideration of the extraordinary professional services rendered by Surgeon-Major James Henry Reynolds, M.B., V.C., at Rorke's Drift, Zululand, South Africa, on January 22 and 23, 1879, in his constant attention to the wounded under fire, in consideration of his eminent bravery in voluntarily conveying ammunition across an open space under a heavy cross-fire, and also of the remarkable intelligence, coolness, and tact evinced by Surgeon-Major Reynolds under circumstances of great danger, the gold medal of the British Medical Association 'for distinguished merit' be, and hereby is awarded to him."

THE COMMITTEE ON CORONERS.

THE Select Committee has made its report on the subject of Coroners, which, while pleasing to some, will be equally unsatisfactory to others. Years ago we contended strongly for the election of medical men to this office, but we are now obliged to confess that some who have been thus elected have turned out to be anything but models of prudence and wisdom. The Committee recommend the appointment of legal coroners, who shall have stipendiary's powers, and so save the expense and bother of the double examination now necessary in cases of suspected murder. This will necessitate certain important changes, especially the bringing of the

suspected individual before the coroner's court. Should this portion of the suggestions made be unpalatable, probably the next may give more satisfaction to the profession—at least it ought to do so. At the present time the coroner's hands are more or less tied, as he is bound to call in one of the nearest practitioners in all cases where medical evidence is required. We need hardly say that this is not at all times satisfactory. Now the Committee advise the appointment of one man to a district for the purpose of carrying out all necessary investigations. Such an appointment would properly go along with that of officer of health, and should make such appointment well worth seeking. Moreover, the holders of such posts ought to be debarred from practice. In this way the ordinary practitioner would be still the only available and authentic source of all real knowledge as to personal and family history, whilst he would be relieved of that irksome load of responsibility with which he is now too often burdened. We wish some alteration may be made in the matter of the election to the coronership. As it now stands, this is both expensive, tedious, and most unsatisfactory.

ST. THOMAS'S HOSPITAL.—DISTRIBUTION OF PRIZES.

ON Thursday, July 10, at three o'clock, Mr. Alderman McArthur, M.P., proceeded to distribute the various prizes gained by the students of this Hospital:—*Summer Session, 1878*: First Year's Students—W. Wansbrough Jones, College Prize £15; C. W. Haig-Brown, College Prize £10; L. W. Bickle, College Prize £5; Melville R. H. Jay, certificate of honour; F. W. Stoddart, certificate of honour. Second Year's Students—W. A. Duncan, College Prize £15; R. Heelis, College Prize £10. *Winter Session, 1878-79*: Entrance Science Scholarship—W. W. Hull, scholarship £40. First Year's Student—F. H. Furnival, the William Tite Scholarship £30. Second Year's Students—W. Wansbrough Jones, College Scholarship 40 guineas; C. W. Haig-Brown, College Prize £20; Melville R. H. Jay, College Prize £10. Third Year's Students—W. A. Duncan, Second Tenure of Musgrove Scholarship 40 guineas; W. A. Duncan, College Prize £20. Physical Society's Prizes for 1878-79—W. A. Duncan, Society's Third Year's Prize; G. D. Thudichum, Society's Second Year's Prize. Anatomical Assistants—C. S. Sherrington, H. N. Holberton, and W. A. Duncan, certificates of honour. Prosectors—W. Fell, prize; Melville Jay, prize. Resident Accoucheurs—J. F. Nicholson, W. Tyrrell, F. M. Sandwith, H. U. Smith. Grainger Testimonial—W. A. Duncan, prize £20. Surgery and Surgical Anatomy—Kanehiro Takaki, the Cheselden Medal. Practical Medicine—T. D. Acland, the Mead Medal. For General Proficiency and Good Conduct—Kanehiro Takaki, the Treasurer's gold medal.

THE WILHELM-AUGUSTA MEDICAL BENEVOLENT FUND AT BERLIN.

THE medical men of Berlin and the neighbourhood have, in honour of the golden wedding of the Emperor and Empress, subscribed the sum of 13,500 marks to found a charitable fund for the relief of such of their distressed brethren as shall have resided at least two years within the district, or of their widows and children.

DUTIES ON WINE.

THE Select Committee of the House which has been inquiring into the subject of the Wine Duties has just reported. The Committee make some most important recommendations, but the subject is too important to be dealt with this week. Suffice it to say that they are all in favour of removing, as far as possible, existing restrictions on the importation of natural wines.

THE SELECT COMMITTEE ON THE MEDICAL ACT AMENDMENT BILL.

AT twelve o'clock on Friday, July 11, the Committee resumed the hearing of the evidence in reference to this Bill. The witness examined was

Sir JAMES PAGET, who, in examination by Mr. Forster, said: I am a member of the Medical Council, and have been for three years. I am the representative of the Royal College of Surgeons of England. I have been on the Council of the College of Surgeons for about twelve or thirteen years. I was President of that College four years ago. It is an annual office. I have given lectures for many years at St. Bartholomew's Hospital, and I have also been Professor of Anatomy and Surgery at the College of Surgeons.

THE CHAIRMAN: There are two points on which we should be glad to have your opinion. One is conjoint examinations, and the other is the constitution of the Council. We will take first conjoint examinations.

Sir JAMES PAGET: I am in favour of a single conjoint examination for each division of the kingdom. Chiefly, I think that it would diminish the number of examining boards, and thereby diminish the chances of some examinations being too low, and increase the probability of raising the standard of all examinations; and it will give the universities a share in the management of the examinations in the several corporations. I would not venture to say that any of the examinations are too low for safety. I do not think that men are passed into the profession who are not qualified to practise; but I think that some of them might be made higher than they are with great advantage. I think that the purpose of an examination should be not merely to ascertain whether a man is fit to begin practice, but to ascertain that he has learned his profession as thoroughly as possible, and is fit to improve himself in it. I think that of late years there has been progress made in medical education; but by a more uniform system of examinations the standard would be raised from time to time. The standard of examinations has been most decidedly raised during the last fifteen years. I would not say that any of them were of an unsafe standard. None of the visitors from the Medical Council have reported them to be so. With regard to the Royal College of Surgeons of England, I consider that its examination is quite high enough in all the subjects in which it examines, which are anatomy, physiology, pathology, surgery, and medicine. It does not examine in chemistry, or in materia medica, or in midwifery. Practically, the harm is not great, because very few persons now practise with a single qualification. A man gets the second qualification from the College of Physicians or from the Apothecaries' Society. He is examined in midwifery at the College of Physicians or at the Apothecaries' Society. Still, it is a great defect that anyone can practise with a single qualification, and that that qualification may be given to him although he has never been examined in materia medica or in midwifery.

THE CHAIRMAN: Does this exclusion of midwifery from strictly surgical teaching apply to the College of Surgeons in Ireland?

Sir JAMES PAGET: No; I believe that they examine in those subjects there. At the College of Surgeons of England there was formerly a special licence in midwifery, but that was over and above the membership of the College. It was not compulsory that anyone should pass it. It is because the College of Surgeons is very anxious to have examinations in these subjects which I have mentioned that it has urged the formation of a conjoint system. The College of Surgeons is by no means content that its members shall not be examined in these subjects, and for the last ten years we have been applying for a conjoint examination, that we might have this amongst other advantages. The examination in midwifery at the College of Surgeons which I spoke of is now discontinued.

THE CHAIRMAN: It seems that midwifery is not considered to be part of a surgical education?

Sir JAMES PAGET: It would long ago have been considered as a necessary part of the examination at the College of Surgeons, but for the fact that it was examined in by the College of Physicians and the Apothecaries' Society, and that, practically, all who passed one examination passed the others. Those who had been qualified only in surgery would be those

intending to practise only surgery. I believe that there is a constant strife between the examination of the College of Surgeons and the means of teaching in the schools. It is very difficult to raise the standard of examination anywhere unless you can be sure that all the schools are prepared to teach up to that level.

The CHAIRMAN: What are the examinations of the College of Surgeons?

Sir JAMES PAGET: There is, in the first instance, what is called the preliminary examination, which has to be passed by a man before he can be registered as a medical student. This is before he is allowed to commence any medical studies. After the preliminary examination the student commences his studies; and at the end of two years, following a certain prescribed course, he must pass an examination in anatomy and physiology. At the completion of his fourth year of studies he passes an examination in surgery and pathology, and in medicine, unless he has a medical qualification from some of the authorised bodies. That has been the case, I think, for about the last fourteen or fifteen years.

The CHAIRMAN: With regard to the preliminary examination, has that been raised?

Sir JAMES PAGET: Yes, it has been gradually raised; but the question of preliminary examinations is a remarkable instance of the difficulty of getting educational bodies to provide what we want for examinations. Students generally come up at the ages of seventeen or eighteen. We are anxious that they should be examined in chemistry and botany in their preliminary examination, but it is almost impossible to make sure of its being taught. The primary examination has been raised very much, and complaints are commonly made that it is unfairly high. If a young man does not pass it, he comes up again—at the end of three months if he has done fairly well, and at the end of six months if he has done badly,—and that is determined by the number of marks which he receives at each examination. It is not common for any man to fail who has got capacity enough to practise his profession; but we sometimes get very stupid men, and then recourse is had to cramming.

The CHAIRMAN: It is suggested, in connexion with conjoint boards, that it might be advisable for the Medical Council to undertake the examinations.

Sir JAMES PAGET: I think that that would be a very great disadvantage to the profession. The management of the examinations is one of constantly varying details. The Medical Council might appoint examiners; but then it would have to spend immense time in drawing up regulations. I think that the Council would be exceedingly unfit for anything like the details of the examination. It would be of necessity a minimum examination—notoriously so. The persons passing it would be connected with no authority in medicine. I believe that, if there were an examination instituted by the Medical Council giving licentiatehip in medicine and surgery, not three students in a hundred would be content to pass that examination alone. Those who did accept that qualification only, would be stigmatised in the profession as an inferior class; and the great majority would go, as they do now, to the College of Surgeons or the College of Physicians, or some other bodies, to take what they would regard as honorary distinctions. I think that the proper duty of the Medical Council is to keep the examining bodies up to their duties rather than examine themselves. I am not familiar with the mode of examination in Germany. I know that everyone has to pass a State examination, which is always regarded as a measure of safety, and all who are examined in it are supposed to be competent—which is not always the case with those who are examined by the German universities.

The CHAIRMAN: Do you allow the preliminary examination of any other examining body to stand in place of yours?

Sir JAMES PAGET: There is a long list of bodies from whom the preliminary examination in general education is received; but the primary examination is passed at the College, and no other is received from students. The holding of the licence of the Society of Apothecaries is received by us in place of an examination in medicine, and similarly the licence or the membership of the College of Physicians is received in place of a medical examination. I think that the universities in Scotland do not take any primary examination but their own; but the corporations in Scotland accept the primary examination of any other of the authorised bodies.

The CHAIRMAN: How many diplomas do you issue a year?

Sir JAMES PAGET: The number that presented themselves for final examination in the year 1878-79 was 509; the number of those who passed was 345; the number rejected 164. The rejections at the primary examination are more numerous than for the final examination. It is about a third in each case.

The CHAIRMAN: Supposing that the Council were to give a Staats examination, leaving to the different bodies an honorary examination, might there not be an advantage in that?

Sir JAMES PAGET: I think that it would lead to the disappearance of some of the examining bodies altogether. The degrees conferred by them would not be considered sufficiently honorary to warrant a separate examination. I think that such a body as the College of Surgeons would be unaffected by it. If it were wished to get rid of some of them it would be an effectual method. Direct supervision by the Medical Council would be a grievous error. The superintendence of medical education must be conducted on the spot by persons connected with the schools and familiar with the working of the schools. The members of the Medical Council, if they are elected according to the present plan, and especially if they are selected from the profession, would not be able to do that. There would be a disadvantage in transferring to a general body the work which is now supervised very much by those gentlemen who have themselves been engaged in lecturing and teaching, and who most know what ought to be taught.

The CHAIRMAN: Before I leave the question of conjoint boards, you approve, do you not, of the scheme which was arranged for England?

Sir JAMES PAGET: Yes.

The CHAIRMAN: That scheme having been arranged, why was not it voluntarily brought into force, notwithstanding the fact of no Bill being passed?

Sir JAMES PAGET: I think chiefly because the scheme was felt to be imperfect in practice in England alone, and that the great effect would be to make examinations more difficult, and students would be induced to go elsewhere, where they would be more easy. I am aware that the chief objection to the conjoint scheme comes from the Scotch universities. I should not like to give an opinion as to the objections, because I am not sufficiently familiar with them to know how they could be overcome. I am clearly of opinion that unless we could have a conjoint board in each of the three divisions of the kingdom, there would be a difficulty in working the scheme.

The CHAIRMAN: What do you consider to be the present functions of the Council?

Sir JAMES PAGET: The work of preparing the Pharmacopoeia, which was one duty, is entirely finished. Registration is kept in good condition; and it seems to me that there remains for the Council nothing but the supervision of medical examinations, and, through them, the supervision of education. For that purpose I consider the constitution a good one. I think that the Council contains in itself a sufficient number of those who have been most actively engaged in teaching and education, and who are still constantly employed in those capacities. I have often thought of the fact of half representatives as a theoretical objection; but when we look closely at it, we see that the objection is insuperable everywhere. I have heard it proposed to the Medical Council that there should be representatives to the Council according to the number of licences granted. If it were so, the representatives of London ought to be equal to the representatives of Scotland.

The CHAIRMAN: Do you find, in the deliberations of the Council, that the constituency of each member is generally borne in mind, or that matters are discussed independently of that consideration?

Sir JAMES PAGET: I think that one advantage of the Medical Council in that respect is that any member can bring any charge against any one of the authorities, and that charge can be immediately met by the representative of that body.

The CHAIRMAN: That would imply that unless each examining body is represented, it ought to cease to be an examining body. While it is an examining body, however small, it would be necessary to be represented, because it could hardly be reformed or impugned without some one to defend it?

Sir JAMES PAGET: Yes.

The CHAIRMAN: Would you increase the functions of the Council?

Sir JAMES PAGET: No. With regard to dealing with sanitary legislation, I think that it would require that the Medical Council should be represented by sanitary officers. Sanitary interests would be better advocated by individuals, and the opinion of the profession would be better arrived at by voluntary institutions than by a State body, unless it were by the Privy Council, which is able to appoint its own sanitary officers; but I do not think that it would be advisable to have such a body as that separated off from the profession.

The CHAIRMAN: Would there be no advantage in the Medical Council representing the interests of the profession?

Sir JAMES PAGET: I think that those interests are better discussed in public meetings where anyone can state his own views. I should think that if the interests of the medical officers of the Army were committed to the Medical Council, they could not be discussed in less than ten or fourteen days, and then no good result would be arrived at.

The CHAIRMAN: It is stated that the Council has failed in its objects—first, for want of power, then for want of will to use that power.

Sir JAMES PAGET: I have heard of those objections, and it has often occurred to me that if we had an ideal standard of perfection to which the Council might attain, that end might be accomplished; but all these objects have to be attained by examining boards and schools, and there is therefore necessarily slowness of progress. It ought to be considered whether there is more done in any part of the kingdom on behalf of any other profession: and I venture to say that there is not a business or profession in the kingdom the members of which are so completely educated in all its branches as are the members of the medical profession.

The CHAIRMAN: Are not the public better able to judge of the capacity of a member of other professions than of that of a medical practitioner?

Sir JAMES PAGET: The members of our profession are always passing a competitive examination. There are few to be found who cannot be said to have been at some time under the supervision of the managers of hospitals, infirmaries, or poorhouses. They are under constant inspection and public view, and they really spend their lives in a competitive examination.

The CHAIRMAN: It has been suggested that the Medical Council have allowed the last ten years to pass by without much real change in medical education; although it can be shown that they were aware of its deficiencies at its earlier periods.

Sir JAMES PAGET: It is difficult to say how much has been done by the Medical Council, and what has been done by the examining bodies. Some seem to assume that the Medical Council does everything. Others say that it does nothing. It must be considered that the whole of the examining bodies are more or less active in the promotion of medical education.

The CHAIRMAN: Take the average of general practitioners in England: would you say that their education is equal to what it is in France?

Sir JAMES PAGET: I have never yet met with anybody who has known intimately practitioners in France or in Germany; but from what information I can obtain, I believe that the general practitioners of England are, as a body, more competent for all the duties of their profession than those of either France, Germany, or any other place that I can hear of. My profession leads to my meeting with large numbers of our own practitioners in consultation, and, if I have been struck once with ignorance, I have been surprised twenty times with knowledge.

The CHAIRMAN: It has been stated that the fact of the members of the Medical Council being men of eminence, puts them out of sympathy with the general body of practitioners.

Sir JAMES PAGET: I do not think that that can be said to be the case. Every man in consulting practice has his reputation depending on the opinion of those whom he meets in consultation. Eminent men are constantly being brought into contact with general practitioners. On the question of direct representation, if I might be allowed to refer to the statement of Mr. Simon, it expresses just what I should say. I think that there should be some members of what is called the general body of the profes-

sion; and I think that it would lead to no harm if they were not very numerous. But I do not think that the good which would be done would be so great as to make it desirable to have direct representation of the whole profession. If they could be elected otherwise than by general election, it would be much better. The whole process would be very inconvenient. There would be appeals to constituencies, canvassing, with the probable result that he would get elected who had the best organisation for election purposes. As to party interests being introduced, I think that they would be represented by the different journals. I think that the method of election proposed by Mr. Simon was a fair one. I can suppose a method by which every one of the authorities should send a representative elected, directly or indirectly, by a very large portion of its members. I think that the constituency of medical bodies might be equalised. I think that it would be far better, if it were possible, that the Crown should appoint members from the general body of the profession. The Crown already appoints six members, but they are not exactly representatives of the profession. There is nothing to prevent the Crown appointing representatives of the profession. As to numbers, I think that there would be practically no difference between a council of twenty-four and a council of thirty.

By Mr. MITCHELL HENRY: Although many bodies do not examine in all branches, they require examination in such subjects in their curriculum. I do not think that a conjoint scheme would do away with special examinations for the public service. I would still have the special examinations for the Army and Navy, and the best men should be selected after they had obtained licence to practise. Speaking generally, I think that medical men practising in the United Kingdom are highly qualified. I think that it is the duty of examining bodies to see that the teaching is done in such a way that a man shall not pass his examination by cramming. In the present day the evils of cramming are minimised, large schools requiring continuous examinations. The competition of medical schools has a good effect.

The CHAIRMAN: It has been objected against the Medical Council, that although they have made the examinations more stringent, they have neglected to issue a good scheme of education to enable the students to meet these stringent examinations.

Sir JAMES PAGET: I cannot say what was the state of things more than three years ago; but three years ago the Council issued a copious set of recommendations, which were to be observed by all the examining boards. Those recommendations, as far as I know, were either previously observed or have been since. There may be a few exceptions, but I think none of great importance. I do not remember that there was any such great wrong in the examining boards at that time as to make it desirable that there should be compulsion. Some granted a single qualification without examining in all subjects. All those bodies were prepared to remedy this state of things by a conjoint scheme.

By Sir TREVOR LAWRENCE: As to the diminishing majorities in the Medical Council on the question of conjoint boards, I can only guess that the representatives from Scotland have found the difficulties connected with it to be insurmountable. The whole of the money collected by the Medical Council is disbursed in professional and public directions. I think that the principle of affiliation contained in the Act of this year is an important moral safeguard. So far as I have seen, there has been no desire and no practice in the Medical Council of disregarding the recommendations of the Committees. The recommendations of the Medical Council are, I believe, received with practical respect by the licensing bodies. I think it very important that corporations and universities should be combined in examining boards. I believe that the Register is now as accurate as it can be made. I would not accept a position on the Medical Council or anywhere else to transact business with which I was unacquainted, and I could not undertake to become acquainted with such special subjects as sanitary and Army and Navy matters, which must be dealt with by those who are competent to deal with them. The Council would have to be recruited from other sources for the purpose. I think that the Medical Council was quite right in declining power to interfere with the curricula of the schools, and it would be regretted if they had such power to interfere. The Council is quite competent to deal with all questions of medical

education, and I should be indisposed to make it a medical parliament.

By Mr. WHEELHOUSE: I think that the curricula of schools are best determined by examining boards who are most intimate with the schools. The differences in the systems of examinations are not very great. In so far as the examinations vary, I think that the remedy would be found in conjoint examinations. I prefer a conjoint scheme to a *Staats* examination. I think that a conjoint system can be instituted in this country without the intervention of Parliament; but unless it were introduced into each of the three divisions of the kingdom, it would be unfair towards the country that introduced the scheme for itself. At the same time, I think it most probable that if conjoint schemes are not made compulsory, England will adopt one. Many things influence students in their choice of a school. The difference in fees is not so great as to be generally a turning point. The cost of medical education for what is really necessary ranges from ninety to a hundred and twenty guineas. The cost of pass examinations in England is greater than in Ireland and Scotland, assuming that a double qualification has to be obtained. In England a man has to pay two sets of fees for a double qualification, which is not the case in Ireland and Scotland. It is the necessity for a double qualification which induces men to become licensed by two corporations. I think that the functions of the Medical Council should be limited to broad principles, and not extend to the consideration of details.

By Dr. CAMERON: I think that a State examination in England would be an ill-conducted one, and therefore not desirable. I once proposed at the Medical Council the visitation of schools, but the motion was rejected on the ground that they had no power, and that their powers were already exceeded with regard to giving recommendations, and it was thought advisable not to exceed their powers further. I think that medical education is exceedingly cheap. I do not know of any other profession which will compare with the medical profession in that respect.

By Dr. O'LEARY: I do not know all the motives affecting the Council in discontinuing visitations from 1872 or 1873, but I think the feeling was that the examinations were satisfactory. I think that visitation combined with the conjoint scheme would be an excellent instrument for maintaining uniformity in the three divisions of the kingdom.

By Mr. ARTHUR MILLS: The question of direct representation was fully considered by the Council last year, the result being that a large majority of the Council decided that direct representation was not desirable. It is a weighty fact that three successive Governments of different political principles should have ignored the principle of direct representation. I think that unless there is legislation on this subject we shall be greatly hindered in the progress of medical education. I generally approve of the Government Bill. I think that the introduction of members of the profession might be managed by the introduction of six persons of sense and ability to manage matters, and that the representation of the profession would be, therefore, devoid of all harm; but I do not think that we should get an advantage to counteract the harm of a general election. I think that it would be wise to remain as we are rather than have direct representation. I think that it is a reasonable thing that members of the profession should be on the Medical Council, but if the sacrifice of a conjoint scheme should follow the refusal of direct representation, I would willingly sacrifice it. I do not think that the compulsion of members of the profession to pay for registration can be regarded as giving them a right to representation on the Council.

By Dr. PLAYFAIR: I disapprove of extensive powers being given to the Council as to the teaching and examination at universities. I think that to deprive the Scotch universities of a share of the fees would greatly affect them in respect of maintaining their museums and their practical powers of teaching. It is supposed that under the conjoint scheme the universities will limit themselves to the conferring of honorary degrees; and that out of the fees paid in connexion with those degrees the universities will be able to maintain themselves. I think that if the universities confine themselves to grant high honours, there will be needed some change in the Bill for the maintenance of their museums. I think that the effect of a conjoint scheme will be that the smaller corporations will be weeded out. If we are already better off than other countries as regards medical

education, I do not think that that is a reason why we should be self-satisfied. I am aware that the Scotch corporations have a conjoint system already; but I do not think that it has affected the examinations at all. I believe that the present constitution of the Council is as good as any that can be proposed for the work it has to do. I agree with the President, that so long as the result obtained is good men, the constituency is unimportant. I do not believe that there is a wide dissatisfaction in the profession as to the work in education that the Council has done. I believe it is thought that it might undertake duties which do not belong to it; but I have never heard it suggested that the Council should undertake the entire control of examinations. I cannot speak as to the efficiency of the examination of the Society of Apothecaries. Because the fee is low I would not therefore say that the examination is low. I do not think that a diminution of the numbers of the Council is advisable. In my opinion the Medical Council talks as little as any representative body in England. It is quite possible for students to find out the easiest entrance to the profession, and they do so. No conjoint scheme can be worked without the sanction of the Medical Council and of the Privy Council.

The Committee adjourned at 4.30 p.m.

On Tuesday, July 15, the Committee sat again, the Right Hon. W. E. Forster in the chair.

Sir D. CORRIGAN was called in and examined by the Chairman. He said he had been a member of the Council since its formation, and that he represented the Queen's University of Ireland. The Government Bill proposed a conjoint scheme for each of the three kingdoms, but he was not in favour of that scheme, as he considered that it was impracticable. Instead of introducing one portal as the entrance to the profession, it introduced three—one for each division of the kingdom. That scheme would substitute national dissensions for professional jealousies, which would be a great misfortune. He did not think that having three portals would lessen the evils that were now caused by nineteen. Only two degrees were issued by Trinity College until the establishment of the Council; since then others had been added; and it was the same with the Queen's University.

The CHAIRMAN asked if he would prefer one examination only.

Sir D. CORRIGAN said if he answered that it would not fully explain his meaning. There had been a great deal of discussion about the status of the profession, but nothing had been said as to the interests of the public, who were treated merely as the paying body. Different grades in the profession were required by the public. The Government Bill was a kind of Procrustean bed in which everyone was to lie down, and the public needs would not be met by it.

The CHAIRMAN asked if he proposed any changes, or if he would leave matters as they were.

Sir D. CORRIGAN said that for the present he thought he would leave matters as they were. The Bill proposed that no one should be compelled to adopt any particular theory in medicine or surgery, or to refrain from adopting any particular theory. The first proposition was just and equitable, but the second was not so. Two years ago a foreign professor went to Dublin, saying he could cure syphilitic patients by inoculating them with syphilitic poison on the homœopathic system. He killed a few persons, and then had to fly the country. (Laughter.) If a physician of a workhouse acted in that way he would be able to plead that he was protected by the Act. He would leave the rich at liberty to send for any practitioner they chose.

The CHAIRMAN said that if a man held himself out as qualified, there was some restraint over him; but if he said "I do not care for any of your diplomas, but I offer to cure diseases and mend broken limbs," there was nothing to prevent that.

Sir D. CORRIGAN said that if he summoned his patients for payment of his fees, he would not succeed. The rich could do as they pleased; but with regard to the poor, he would not have anyone appointed to a workhouse or dispensary unless he was satisfied that he was properly qualified—on the principle of the Army and Navy Board. He would not confine the Register to practitioners who wished for State employment, but would have the present bodies to examine and give diplomas to practitioners in general. He thought that the Medical Council had managed its business very badly, and it ought not to have any additional powers. As

to the inspections, they cost a great deal, and did very little good. Notice was sent when the inspectors were about to attend, and of course everything was ready; but there was nothing to show that the examinations would be carried on in the same manner for the next year. He did not approve of the constitution of the Council. The Council was formed in 1858, and in 1859 an advertisement was issued by one of the colleges that for the sum of £10 it would grant a licence in medicine, without examination, to anybody.

The CHAIRMAN asked if that was the College of Physicians in Edinburgh.

Sir D. CORRIGAN said he wished to avoid mentioning names. That body issued 1000 licences at least in a year. He brought forward a resolution that they should not be registered, but he was outvoted. They were inserted on the promise that the thing should not be repeated; but the money was kept by the College. (Laughter.) He thought nothing of the sort had occurred since, because he believed there were no more purchasers in the market. (Laughter.) The Council in July, 1878, requested the Executive Committee to draw up a report with reference to any changes that might be considered necessary in its constitution. The Committee slept upon the matter, and did nothing. At the meeting in October he proposed that, as nothing had been done by the Executive Committee, the Council should take into its own hands the question of direct representation. That resolution was lost, and an amendment carried stating that the discussion was at that time premature, and not in accordance with a previous resolution.

The CHAIRMAN asked what changes he desired to make in the constitution of the Council.

Sir D. CORRIGAN said that in November last he sent a letter containing his views to each member of the Council. He would limit the number of members to nine; three for each division of the kingdom, chosen by the profession generally, the universities, and the corporate bodies. He would have no Crown nominee except the President. There would be a university member for each division of the kingdom. He would give exactly the same representation to England, Scotland, and Ireland. Population had nothing to do with the question. He was in favour of the direct representation of the profession. There was no one at the Council who had practised obstetrics, and although they had the management of dentistry there was no member of the Council whom he would trust to draw one of his teeth. (Laughter.) He would leave the House of Commons to decide what should be the mode of election of direct representatives. He did not know whether, as a rule, candidates for the Medical Council would be prepared to incur much expense to secure their election. At present, neither the Crown, the corporations, nor the universities contributed one farthing to the Council. The tax was taken entirely from the profession at large. That was wholly inconsistent with the principle of no taxation without representation. It was an extraordinary doctrine to lay down that the Council was made a State-acknowledged body for the general advantage of the public, while the members of the profession were to pay the tax. Soldiers and sailors were provided for by the State, and it was considered that the State was bound to take care that properly qualified men were put in charge of them. The same principle ought to be applied to the members of the civil community who took charge of hospitals, dispensaries, and other places for those who could not select advice for themselves. He was certain there was at the present time danger of improperly qualified men being appointed to such places. He thought that the principal want at the present time was to have a special test examination for such appointments as those. Direct representation would introduce men into the Council who knew the requirements of the public, and how public institutions were managed. It was perfectly true that the members of the Medical Council whom the public knew the most of were men who had made their position by successful practice, but they were not originally general practitioners.

By Mr. ARTHUR MILLS: The Medical Council passed a resolution, on July 4, last year, directing the Executive Committee to report on direct representation, but three months elapsed before the Executive Committee carried out the order. When the proposal in favour of direct representation was submitted to the Council it was negatived. He thought no turmoil would be caused in the profession by the elections, but there had occasionally been some

turmoil in Ireland. He had known a dispensary committee have stones thrown at them when a popular doctor had not been elected to a dispensary. Members of the House of Commons did not object to the press canvassing their respective merits and promises; and he did not at all see that there ought to be any objection to the medical press canvassing the merits of the candidates for the Medical Council.

By Mr. ERRINGTON: There was no pressing urgency for reform, but if there were he would support Mr. Errington's Bill. The result of the reports made to the Council by their visitors was that there was a steady improvement going on in the qualifications of medical practitioners. He considered whatever protection the public might require would be amply met by that Bill. The members of the Medical Council were on their trial, and he did not attach much value to their adopting one view or another. It was true the majority in favour of the conjoint scheme had diminished; but he did not consider inconsistency was a vice. A man had a right to change his opinion. There would be great difficulty in the practical carrying out of the conjoint scheme; in fact, that scheme reminded him of Nebuchadnezzar's dream, where the statue was formed of metals that never could combine. (Laughter.) It proposed to unite universities and colleges 300 years old with others that had no prestige whatever, and to combine bodies that had endowments with others that had none. The Apothecaries' Halls of England and Ireland were merely trading bodies, and admission to their management was obtained by the purchase of shares. Most heterogeneous compounds were mixed together in the conjoint scheme. If a large body of examiners were appointed in each division of the kingdom and subdivided into committees in order to carry out the examinations, there would be as much difference as was now caused by the existence of so many different licensing bodies, and it would be utterly impossible to maintain uniformity of standard. A call was made by the public in 1815 for a greater supply of practitioners. The Government felt that the subject was pressing, and they proposed that the College of Physicians should institute a pass of an inferior kind. This proposition was rejected by the College of Physicians, but accepted by the Apothecaries' Hall, which thereby became not only a trading body, making a profit on its shares, but also a licensing body. The result of the action taken by the College of Physicians was that the Apothecaries' Hall became a licensing body. The establishment of a minimum standard by a conjoint scheme would have a tendency to lower the standard of the profession, because it would give a man the right to practise and to fill public offices, and he would have no object in going further. The care of the poor would then be confined to persons with a very low qualification. Practitioners with only that qualification would settle down and earn a good livelihood, and would not desire to go further. The recommendation of the Medical Council to enforce the registration of medical students in Dublin was a mere farce. A young man might enter upon his studies at Trinity College on payment of 5s. without being an undergraduate at all.

Mr. ERRINGTON: We had some evidence as to a visitation of the examination at the Queen's University, and there were some papers in which the spelling was very bad; and it appeared that the student whose paper was produced, in spite of his bad spelling, had passed his examination. Now, are you aware of the nature of the preliminary examinations in other bodies in Dublin?

Sir D. CORRIGAN said he himself would be very sorry to have to pass an examination in spelling. In the paper the word "surprise" appeared to have been misspelt, but he confessed that at that moment he would be just as likely to spell it wrongly as rightly. (Laughter.) He did not know that the introduction of direct representation would increase the amount of discussion on the Medical Council, but probably the speeches would not be so good. (Laughter.) He was not aware of any objection to the admission of reporters to the meetings of the Council. The reporters of the public press reported what was interesting to the public, and ignored that which was not. The interests of the public were much more important than the interests of the profession.

By Dr. O'LEARY: If the conjoint scheme were established the probable result would be that the constituencies of the corporations would diminish yearly. He was not aware of any Irish bodies which did not require a preliminary examination. The Executive Committee of the Medical Council had, however, communicated with the College of Surgeons

in Ireland in order to ascertain why they permitted men to go on with their studies without any preparatory examination, and recommended that the subject should be referred to the Irish Branch Council. The view taken by the Irish Branch Council was that they had nothing to do with it, that it was entirely a matter between the managing body of the College of Surgeons and the Medical Council, and that they should be left to fight it out among themselves. There was no registration fee in Trinity College, but there was a matriculation fee of 5s. The payment of 5s. would enable a man to enter upon his studies and entitle him to go all through with them. He need not pass an entrance examination before his name could be entered on the books as a student in medicine. A degree in medicine could be obtained before having a degree in arts. Trinity College permitted its school to be placed on the same level as the private schools in Dublin.

By Dr. CAMERON: The universities of Germany, he believed, required no examination, because they only issued certificates that the students had attended certain courses of study. In France the examinations were conducted by the State. He thought no one should be admitted to the Register who did not possess a double qualification, or had been examined in medicine and surgery together. The Medical Council had no power to insist upon the London College of Surgeons extending its examinations; it could merely issue recommendations. It was a question open to argument, and one on which he would not like to give an opinion, whether an examining body appointed by the Medical Council, especially if that Council were reinforced from outside, would be more independent and more "go-ahead" than an examining board appointed by the examining bodies. The prescribed curriculum, and the certificates as evidence that the curriculum had been followed, in his opinion, were all a farce.

By Mr. WHEELHOUSE: Among the various modes of obtaining public appointments in Dublin, purchase prevailed, and he himself would not be in a hurry to abolish that system. In his early days he purchased an appointment. An ambitious man with £200 or £300 at his disposal might obtain an appointment which would enable him to exercise the talents that God had given him.

In answer to Mr. PLUNKET, Sir Dominic said a man might become a licentiate in medicine at the University of Dublin without being a graduate in arts, though he must pass what was called the "Little Go." He did not regard that as a very stiff examination. In order to have a degree in medicine in that University a man must also have a degree in arts, but he might not take out the degree in arts for several years after he had taken a licentiate in medicine.

By Dr. LYON PLAYFAIR: The Senate of the Queen's University had drawn up a memorial upon the subject of conjoint examinations and the Government Bill generally. He quite agreed with that memorial that the Bill would interfere with the functions of the University both as to the curriculum and the examination of students, and that the proposals of the Bill would be seriously detrimental to the interests of higher education.

The Committee then adjourned to Friday.

LINNÆUS.—A sum of 80,000 Swedish crowns has been provided in the Budget for 1880, for the purpose of purchasing the estate of Hammarby, near Upsal. Hammarby belonged to Linnæus, and here he wrote several of his works. It is to be converted into a museum, which is to be placed under the superintendence of the Rector of the University of Upsal.—*Gaz. Heb.*, July 11.

THE CHLORHYDRATE OF PILOCARPIN IN OBSTETRICS.—As this substance begins to be used in obstetrical practice, Dr. Hyernaux has read a paper at the Belgian Academy of Medicine, cautioning against its employment. He states that from his own experiments and the trials that have been made of it by others in their obstetrical practice, he has come to the conclusion that it exerts no special ocytotic action on the uterus, while it may yet induce abortion; and that it appears to him dangerous for the mother, and especially so for the infant. Prof. Müller of Bern, who has made trials of the chlorhydrate, confirms these conclusions.—*Presse Méd. Belge*, July 6.

THE AGRICULTURAL SHOW.

THE Show is over, but alas! the weather which rendered it so disastrous is still with us. Nevertheless we may turn to some reminiscences of what was to be seen there with satisfaction, the more so now that the perils and difficulties encountered in seeing them are also matters of memory. Entering the Show directly from the railway-station, one of the first objects met was a horrible-looking implement in motion, called a digger. It had stuck there and could go no farther. How it would fare on a heavy clay-soil farm is not for us to say. But close to it were two objects which concern us much. The supply of wholesome food has ever been to us a matter of the highest importance, and the question of how best to transport it from a point where it can be plentifully produced in great perfection, to another where such production is impossible, but where consumption is ever active, is no light one. The quantity of dead meat now sent to London is enormous. With a cold winter temperature, when meat is almost frozen, this is not difficult; but in summer, or even in mild winter weather, things are very different. Two waggons, constructed for railway traffic, were here exhibited, both of which had stood a fairly rude test, but both of which, as it seems to us, might be improved. The one is known as Mann's patent, the other as Knott's patent; the one constructed at Manchester, the other at Swansea. The latter gained the prize. This, however, was determined by results, not by principles, and Colonel Mann is strong on the point that his waggon was constructed to be of service for a shorter period than that actually employed in the test. Just so! His system was not impugned—his van was. And the other seemed to be more easily adapted to the altered circumstances. To us, however, the question of principle is almost more important than the execution of it. That is a matter of detail which, once the broad basis of how to do it is accepted, only requires mechanical skill to be worked out. But the principle was not considered at the Show. Two trucks were filled with meat; they went on a long journey; were examined; again closed; opened; and again closed, if we mistake not, before the final decision as to which meat was in the best condition. The whole trial lasted, if we mistake not, twelve days in ticklish weather, and must be pronounced, on the whole, satisfactory.

Both systems are what are called "dry air systems"—that is, air deprived of its moisture by cold or otherwise is made to circulate about the meat, which is kept in chambers as nearly as may be air-tight, and in both systems ice is used to keep the chamber containing the meat as cool as possible. Thus two principles are recognised, first, that cold air is best for keeping meat, but second, that this air must be kept in motion, and opportunity given it for depositing moisture. If the meat is not frozen, and the dried air is kept in constant motion, it is plain the meat must lose weight, and is certain to lose colour. Once meat is frozen and thawed, it must be used immediately or it is spoilt. These are the horns of the dilemma, and the waggons referred to are attempts to solve the problem between the two.

Briefly, then, Colonel Mann's plan is to trust more to dry air than to ice; Mr. Knott's, more to ice than to fresh dry air. For in Colonel Mann's plan the air is drawn in at one end of the carriage, dried and cooled in its transit through a series of pipes in the roof before reaching the interior of the carriage, whence it is drawn out by a screw, driven by the wind, similar to those used in the best form of chimney-cowl. But mark! this being driven by the wind is, available only under two conditions—either when the waggon is in motion, or when a fairly good breeze is blowing. With a shunted waggon on a still day the system of changing the air completely breaks down; the only trust which then can be reposed on it depends on cold, still air. We do not desire to say here how far that is to be relied upon. Moreover, with a temperature outside the waggon lower than that inside, which in winter may easily happen, the cold air from the outside may come in the wrong way, and may cause a deposition of moisture on the meat in the supposed air-tight chamber. These, however, are difficulties easily overcome.

In Mr. Knott's system more ice is employed, together with

salt, so that inside the van the temperature can easily be reduced to something below freezing point. Here, too, cold dry air in motion is the means of preservation used. The air is dried by the cold, and it is kept in motion by a blower; but the essential difference between this plan and that of Colonel Mann is that the same air is used over and over again; it is not renewed, but is, as the inventor says, purified by passing through a layer of animal charcoal. The blower seems to be kept in motion by the motion of the waggon-wheel, so that there is not even the provision for the use of a breeze adopted by Colonel Mann.

Might not this difficulty in both of these schemes be got rid of by adopting a modification of the vacuum break? A valuable meat train is not likely to be shunted without an engine attached. Both schemes are most instructive, and they differ so little from each other in principle, that there is good hope that something comprising the advantages of the two may spring from their juxtaposition.

From this spot we go right to the corner of the enclosure farthest removed from it, for we want to have a look at the food exhibits there. Butter is the chief article to be seen, and especially from Denmark and Finland. From one point of view it would not be easy to over-estimate the value of these exhibits. We are perfectly confident that good English butter can stand against the world; moreover, it can be delivered in London, in its most delicious state, perfectly fresh, an hour or two from the churn, and without the slightest taint—witness the Aylesbury Dairy Company. But betwixt this butter (which is, unfortunately, by its price forbidden to the poor) and the stuff called butterine and such like names, there is a "*hiatus valde deflendus*." As an illustration: Having one day an eye to a marrow-bone, we suggested to a butcher that for a reasonable sum it might become our property. "Oh no, sir—can't sell that, sir—goes with the rest, sir." "Where?" said we. "Why, bless you, sir, they makes butter of them!" Well, we have no doubt that marrow-bones are very nutritious; but, somehow, when we want butter we like to have butter. Bread and dripping is relished more by some people than bread and butter, especially if they have been at a boarding-school. Bread and lard is a staple article of diet in many parts of England, and he that has partaken of a slice of real Berkshire bacon knows well that there is little but good sound fat to be found in it. All this is very well, but even Berkshire bacon is not butter—still less is butterine. From this point of view the Danish and Finnish exhibits are of great importance. True, from these countries we could get nothing but salt butter; but well-salted butter, such as we have seen made in olden days, is for many purposes—sauces and the like—superior to the best fresh. Fresh butter must, with us in London, remain more or less of a delicacy, but good salt butter ought to be available to all. Here again we cannot help regretting that the dairy part of the Show had been more easily come-atable. For country and foreign visitors its lessons would have been invaluable. But even as regards the butter we were not in a very good position to make our investigation: to have tasted samples of all those interminable rows of tubs and barrels would have been destruction; fearful dyspepsia for many days would have been the result. Even the small privilege was denied of examining the prize samples with any satisfaction. We remember the case of an ancient man of good family, but unhappily poor. His great day was market-day, when for miles round about the country folks came in with their produce. The rule was always "Taste and try" as regards the butter—generally done with a sixpence as the means of removal (coppers were not allowed, as they would have polluted the butter). With such a system it can easily be conceived that numerous tasters would make sad inroads on the "pats" to be sold, and then there was the fear of the town authorities before everybody's eyes. Every right-minded person before going into the market had a sample pound weighed, and the basket-cloth duly stamped; but suppose there were those, more unjust in their dealings, who had not the fear of the Lord before their eyes, they still had that of the town officials, who might examine the justness of their weights in the shape of pounds of butter at any time. Woe betide these if my friend passed near them, for he had invariably provided himself with one or more pieces of bread for the purpose of more thoroughly testing the qualities of the goods for sale. He had once a week a good luncheon without buying anything; but it was woe to the

unfortunate saleswoman whose butter was scanty of weight. A visit from my friend would invariably consign it to the hospital, where all such trespassers saw their goods go. At Kilburn we had no such chance. Butter there was in plenty, but we had no roll: the cruel figure of dyspepsia stood before us. We took everything for granted, and left the Butter Show with little increased knowledge.

Preserved Provisions.

Another feature of the Show was announced to be an exhibition of cider and perry. To us this was a taking point. Though not hailing from the west country, good cider has always seemed to us to be one of the most wholesome drinks to be had, even though not reduced into the more delectable form of "cup." For it seems to us that though in cold weather beer, as the heavier of the two, is perhaps more acceptable, still in summer weather—such as we have not seen this year—there is nothing for a drink like good cider. Here again we were disappointed; after another wade through mud knee-deep we found a kind of staging, on which were certain barrels, boxes, and baskets. These were hardly approachable, and when reached, it was found that everything was carefully exposed to the sun, which, when it did shine, was powerful. There was a man in charge, but he knew nothing—had no power over anything. Plainly, our voyage over the sea of mud was doomed to disappointment. Fortunately, however, for us, one or two gentlemen who had samples there happened to turn up to look after their goods, and we were enabled to find out that there were samples from Devonshire, Somersetshire, and Herefordshire. It would be impertinent on our part to say a word of disparagement or of praise as regards either county. But we may safely say thus as regards Herefordshire: we may mention the name of the chief prize-winner, who has also taken the first prize at Hereford itself, and the second at the Bath and West of England Show. His name is Mr. Joseph Davies, of Marden, near Hereford. He got at Kilburn the first prize for cider in cask, and the second for that in bottle. Perhaps many of our readers are unaware of the fact that they may send down their own casks (old sherry are best) to these districts to have them filled and returned. Under such a system the cost of good cider is very small—from a shilling to fifteen pence per gallon. And then its fragrance!

Sic transit gloria mundi. The Show is past,—the weather has caused a great failure where there was every reason to anticipate a great success. Everybody did their best, but what avails that against the elements!

FROM ABROAD.

THE ANTIFEBRILE EFFECTS OF COLD ENEMATA.

In the *St. Petersburg Med. Woch.* of June 14, M. Lapin, one of the *internes* of Prof. Manassein's clinic, gives an account of the trials that have been made there of cold clysters as an antipyretic means. After noticing the few observations upon the subject which have already been recorded, he gives an account of the fifty observations which he has made in Prof. Manassein's wards. Of these he has published a detailed account in a Russian journal, confining himself in the present communication to a general statement of the results.

Prior to the administration of the clyster the temperature of the patient was taken, while lying on his back, in the axilla, the hypogastric region, and the rectum. The temperature of the litre of water employed varied from 5° C. to 10° C. (41° F. to 50° F.), and Hegar's apparatus at a pressure of two feet was used for the administration. After the water had been discharged the temperature was again taken in the same localities. Of the fifty trials, twenty-six were made on fever patients, twelve on patients with non-febrile diseases, and twelve on persons in health. From these trials the following conclusions are drawn—1. Cold clysters form a practical means of reducing temperature, the influence of which continues for a considerable time. After clysters at 10° C. the temperature scarcely reaches its former height in the axilla for from thirty to forty minutes, in the hypogastrium after an hour, and in the rectum after an hour and a half. With clysters at 5° C. the cooling in the axilla lasts for forty

or fifty minutes, but in the hypogastrium and rectum it lasts a much longer time than when water at 10° C. is used, so that the prior high temperature has never been observed to be regained until from two to two and a half hours after. 2. The clysters at 10° C. are well borne in all cases without exception, sometimes leaving behind them a pleasant sense of coolness extending over the whole body. Those at 5° C. are by some just as well borne, but in others they induce unpleasant sensations in the abdomen. In recurrent fever even shivering may be produced. 3. The depression of temperature is more considerable in cases of fever than in non-febrile affections, and in the healthy. (In the fever patients the fall of temperature varied from 0·60° to 0·40° in the axilla, from 1·50° in the hypogastrium, and from 5° to 1·70° in the rectum. In non-febrile cases it varied from 0·40° to 0·30° in the axilla, from 1·40° to 1·10° in the hypogastrium, and from 1·60° to 1·30° in the rectum. In healthy persons it varied from 0·60° to 0·30° in the axilla, from 1·30° in the hypogastrium, and from 2·60° to 1·40° in the rectum.) 4. Not only is the temperature diminished, but also the number of the pulse and respiration to a small extent. 5. The greatest diminution of temperature takes place in the rectum; next in the hypogastrium, and least in the axilla. 6. An advantage of the cold clysters as an adjuvant of other energetic antipyretic means consists in their fulfilling other indications besides the depression of temperature: *a.* They remove the accumulation of masses of fæces, which so frequently occurs in fevers; *b.* They diminish meteorism by contributing to the removal of gases; *c.* In this way they render possible greater freedom in the movements of the diaphragm, and remove a source of self-poisoning of the economy by means of the gases; *d.* To a certain extent, they diminish the afflux of blood to the organs in the vicinity of the rectum, especially the uterus and bladder. 7. Stools follow the use of the clysters at different times in different individuals, varying from a quarter of a minute to two minutes and a half. 8. There can be no doubt that, when a clyster is also indicated in non-febrile cases, the cold clyster should be preferred to the warm in all those cases in which, besides the emptying of the intestine, it is desired to produce a tonic effect on the canal, or to diminish the amount of blood in the pelvic organs.

PROSECUTION OF A VACCINATOR IN PRUSSIA.

In the *Berlin Klin. Wochenschrift* for June 23, an account is furnished of the prosecution of Sanitätsrath Dr. Dorien, at Lyk, in Eastern Prussia, for careless vaccination. Having been appointed to conduct a general vaccination in a part of the circle of Lyk, he collected a quantity of lymph in a small phial, and proceeded to vaccinate, in the town of Grabnich, ninety young children and about sixty school-children. In the course of a few days erysipelatous redness surrounded the punctures and glandular enlargements, ulceration of the pustules and cutaneous abscesses occurred in several of the cases of the first-named group, and in others of them eruptions resembling scarlatina or measles covered the whole body. In this way fifty-three of the ninety young children were affected, and fifteen of the number died in the course of from six to eight weeks after the vaccination. In five of these in which autopsies were made, ulceration and suppuration of the pustules and swelling of the arm were found to exist, and in two of the cases death is reported to have decidedly been produced by purulent absorption; while in the others the production of death by scarlatina poison was admitted by the juridical physicians to have been possible, inasmuch as scarlatina prevailed at that time epidemically in Grabnich. All the sixty school-children were exempt from any of these ill effects.

At the trial the following facts were deposed to—1. Many of the mothers of the children who became ill or died stated that considerable bleeding occurred at the vaccination, blood actually flowing away. 2. Lymph was taken from a child exhibiting an eruption of the scalp, and added to the stock of lymph which was being employed, and this defendant admitted to be the case. 3. When seen on the inspection day, many of the punctures exhibited a threatening appearance, but the vaccination, after a superficial inspection, was returned as successful. 4. Dr. Dorien declared that he had employed this same lymph later on at several vaccine stations, and nowhere had he observed similar diseased appearances ensue. 5. A portion of the lymph was forwarded to Berlin for

examination. It was found to be a reddish, turbid lymph which at that time had entered into decomposition, contained bacteria, and was unfit for employment in vaccination. 6. The expert physicians considered that the diseased condition of many of the children, and the deaths of two of them, were due to the employment of a damaged lymph spoiled by impure lymph taken from a scrofulous child, and that the great size of the insertion-puncture was also to be deprecated. 7. Dr. Dorien, in reply, stated that it was often impossible to prevent bleeding in vaccination, and when this had been the case he had not found it interfere with the success of the vaccination. The lymph, too, which he employed could not have been damaged, as he successfully employed it in vaccinations subsequent to those at Grabnich. The mischief which had been produced he attributed in part to the habit which the women have of sucking the vaccine-punctures, and thereby bringing their alcoholic and dirty saliva in contact with the wounds, and in part to the prevalence of scarlatina at the time of the vaccination. 8. The assistant who accompanied Dr. Dorien in his rounds stated that all the vaccinations had been performed by taking the lymph from the same phial with a camel's-hair pencil, and charging the lancet with it. 9. The expert, Dr. Pincus, considered that the considerable bleeding which was proved to have taken place was improper, and indicative of clumsiness or hastiness in the procedure, giving pain to the child, and risking the washing away of the inserted lymph. The taking lymph from a scrofulous child and mingling it with the other lymph was also reprehensible. It seems almost incredible that a vaccinator who had frequent opportunity of vaccinating from arm to arm should keep a stock of lymph with all its liability to become changed in its quality. As to whether the vaccination so conducted had caused the death of the children in question, the expert could give no positive opinion, as there exists no experience of the employment of scrofulous lymph having given rise to such results. Nor is there any proof that scrofula, eczema, or erysipelas can be conveyed directly from child to child by inoculation. As far as our knowledge extends, it is with syphilis alone that this is possible. He rejects the supposition of the influence of the prevalence of scarlatina, as, in several localities where this prevailed, vaccination was performed without any ill consequences. 10. Prof. Möller did not regard either the bleeding or the employment of lymph mixed with scrofulous lymph as the cause of what had happened, but considered it far more probable that the *genius epidemicus*, shown by the presence of scarlatina, had been instrumental in the production of this. He could not deny, however, that the employment of such lymph had been an act of carelessness. The *Staatsanwalt* demanded that six months' imprisonment and a fine of 500 marks should be inflicted for having caused death by carelessness; but the Court sentenced Dr. Dorien only to a fine of £50 for carelessness in the execution of his office as a vaccinator.

The *Allgem. Wien. Med. Woch.* of June 14 states that at the Prussian *Landgericht* at Treves, Sanitätsrath Dr. König, of Prum, was adjudged to pay to the father of a child who had become syphilitic in consequence of vaccination, 600 marks (£30) and the costs of the action.

TRICHINOSIS IN THE HIPPOPOTAMUS.—A case has lately been reported to the Academy of Sciences at Paris by M. Heckel, of Marseilles, where a hippopotamus, aged two years, succumbed to the above disease after an illness of four months. Its hide was studded with numerous furuncles, which extended into its substance as abscesses, and a portion of a muscle from the back, which was involved in one of these abscesses, was found full of encapsulated trichinæ.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—At the annual meeting, held on the 9th inst., the following officers were elected for the year ensuing:—*President:* Dr. J. S. Bristowe. *Vice-Presidents:* Mr. J. Liddle, Dr. G. Buchanan, Dr. Thomas Stevenson, Dr. C. O. Baylis, Dr. W. H. Corfield. *Treasurer:* Dr. J. W. Tripe. *Secretaries:* Dr. J. N. Vinen, Mr. S. F. Murphy. *Council:* Metropolitan Members—Mr. G. P. Bate, Mr. F. M. Corner, Dr. T. O. Dudfield, Mr. H. Leach, Mr. S. R. Lovett, Dr. James Stevenson; Extra-Metropolitan Members—Dr. J. Adams, Dr. F. T. Bond, Dr. G. W. Child, Dr. A. Hill, Mr. E. L. Jacob, Dr. R. P. B. Taaffe.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JULY 2.

W. S. PLAYFAIR, M.D., F.R.C.P., President, in the Chair.

ADJOURNED DISCUSSION ON THE USE OF THE FORCEPS,
AND ITS ALTERNATIVES IN LINGERING LABOUR.*(Continued from page 56.)*

DR. CLEVELAND: Sir, before the commencement of this debate I should have thought, in common with other Fellows of the Society who have taken part in or listened to the discussions that have not unfrequently taken place here on the principles that should guide us in the use of the forceps, that it would have been scarcely necessary for us to have devoted three evenings to this subject; but I confess, after having heard so many differences of opinion, I have come to the conclusion that that idea was not well founded. I further think that Dr. Barnes has shown great judgment in drawing up with the care he has exhibited these general propositions; and I think that the last proposition—the one that has been read by Dr. Hicks with the corollary attached to it—has not been sufficiently noticed by the speakers that have preceded me. He says that “in proportion as the head is arrested high in the pelvis, in the brim or above the brim, the necessity, the utility, and the safety of the forceps become less frequent”; and then there is the corollary, that “increasing caution in determining on the use of the forceps, and greater skill in carrying out the operation, are called for.” If this means anything, it means that the operation is not to be lightly undertaken, that it is one that ought to be well considered, and only to be done by persons who are thoroughly skilled in the use of the instrument. I think the case is somewhat like that of a patient who has stone in the bladder. In such a case, the best thing is to have the stone removed, either by lithotomy or lithotrity; but it would not be the best thing possible if the operation were not done by a skilful person; the patient might live a considerable time with the stone in the bladder, and be better off than if he had the operation performed. Now, I would say that if some of us who had settled convictions at the commencement of the debate upon certain practical points—such, for instance, as the use of the forceps and compression—have had those convictions somewhat disturbed by what we have heard from different authorities, men of great reputation, still, I believe that on the whole we shall be pretty well agreed that in a case where the head is well in the pelvis, where there is what is understood by a lingering labour, where the patient is carefully watched and appears to be kept up by suitable nourishment,—if in such a case you come to a thorough stoppage, no progress being made, and you are satisfied that the uterus has done its best, I think there can be no doubt that the use of the forceps is better than any of its alternatives. But between such a case as that and the contested point where the os is not well dilated, and where arrest is above the brim, there appears to me to be a large class of cases in which great service is done by the use of the forceps. And here let me say that we have not discriminated sufficiently between the long and the short forceps. There are cases in which the long forceps will reach the child, and where the short forceps will not be of any avail. Sometimes, indeed, I have to ask myself the question whether we should not be better off if there were no short forceps at all. I have myself seen people waiting and waiting until the head comes within reach of the short forceps, and a great deal of time has been lost, and a great deal of danger incurred by the patient. For many years I have not used the short forceps, and I have never found a case in which the long forceps would not answer both purposes. With regard to the contested point, I may say that I think it is very rare indeed that an operation is required for purely lingering labour, but I do not believe for a moment that in skilful hands any mischief is likely to accrue to the patient by the use of the instrument if it is necessary to employ it.

Dr. DALY: I will only occupy two or three minutes in replying to some of the figures of Dr. Roper. I have not had 10,000 cases, but in 1700 cases that have come under my private care I have used the forceps with what some people would call extreme frequency. During a practice of fifteen years I have used the forceps in 10 per cent. of my cases, and the result of my practice has been that I have only lost two forceps cases. One was a case in which I put on the forceps for hæmorrhage, and in the other case I am sure the forceps had nothing at all to do with the death. I think it is well for the Society to know that men may use the forceps with even much greater frequency than I have done. I have been looking over the statistics of some medical men connected with this Society. A gentleman recently showed me his list of 260 deliveries. He had used the forceps in exactly forty cases without a single maternal death and without a single still-birth. Now, if the forceps were on its trial to-night, as Dr. Roper would suppose, I do not think we should have such statistics as those. From what one has heard from the different speakers who have addressed the meeting, one really would think that Dr. Barnes's book had never been written, and that we had not your book, sir, on midwifery before us. The great value of the forceps is that they save the woman an enormous amount of suffering. I have not heard that point stated by any speaker, although I am aware you have mentioned it in a paper read to this Society. The woman goes on for hours (I am now speaking altogether of the low operation) with the head of the child resting on the perineum, and if we simply put on the forceps we relieve the woman with perfect safety from hours of suffering. I may be told that there is a risk of laceration of the perineum. According to my experience, if you give chloroform you obviate that risk. It is my rule to give a dose of ergot immediately before, and to put on the forceps if the ergot does not act. I have scarcely ever had a case of still-birth at the full time. With regard to the high operation, I have used the forceps, before the os has been fully dilated, thirty times with only one fatal result, and that was a case of hæmorrhage. The conclusion I should draw from my experience is that when the head is below the brim of the pelvis there need be no limit to the frequency with which we may apply the forceps, so as to save the suffering woman from unnecessary anguish without increasing in any degree the risk to mother or child, and that it is no more unscientific to wait for days while a mammary abscess bursts of itself, than it is to wait many days while the head passes, when we can deliver the child at once by means of the forceps.

Dr. GRAILY HEWITT: The subject of the application of the forceps is one that has interested me very much, especially in the early part of my career, which coincides with the formation of the Society. I am happy to see that the Society is in a flourishing state. No better proof can be given of the utility of the Society than the opportunity it has afforded from time to time of discussing such subjects as the present one. I may recall to the Society that one of the first papers read before it was by the late Dr. Tyler Smith—a paper in which he spoke of the abolition of craniotomy from obstetric practice. [Dr. Hicks: When the child was alive.] The paper in question attracted great attention at the time, and Dr. Tyler Smith was much laughed at in certain quarters for bringing such a sentence before the Society at all, but I think that a great deal that we have heard in the progress of the discussion must tend to show that a practice which was then prophesied and inculcated has almost come about. We have heard gentlemen who have come before us and given us the results of their practice, and it has been shown that the number of cases of craniotomy has become almost infinitesimal. With reference to my own experience in the matter, I may say that I went so far as to invent a new pair of forceps, which I brought before the Society three years after its formation; only unfortunately, or fortunately, as it may be considered, I discovered that my forceps had also been discovered by Dr. Beattie, of Dublin, and Dr. Pagan, of Glasgow. The forceps were quite identical. Their peculiarity was simply this, that the blades were considerably longer than those ordinarily employed, in that respect resembling very much those which of late years have been favourites in the hands of obstetrical practitioners—namely, Dr. Barnes' forceps. I do not propose to go into this subject at any length. I will only say a word or two respecting some of the questions

raised by Dr. Barnes in his paper. One of these points is this—Does lingering labour occur so as to entail danger to the mother and child during the first stage of labour? With Dr. Hicks I should unquestionably answer that in the affirmative. My friend Dr. Roper, in his speech, seemed to indicate that we were discussing cases of natural labour, but, in fact, that begs the whole question. We do not know when we have to deal with a case whether it is going to be a case of natural or unnatural labour. If the head is detained at the brim, we have to ascertain what is the cause. It may turn out that it is a slight arrest, which will occasion no particular difficulty; or, on the other hand, it may turn out to be a case of extreme difficulty. We cannot at the moment say what is to be the issue. That constitutes the great part of the difficulty of practitioners in dealing with these cases. It might be a case in which the head and the pelvis were very disproportionate indeed, and that would only be found out by a very careful examination. In a case where there was great disproportion unquestionably harm would result; the membranes would be ruptured, and the patient would drift into the condition which has been so vividly described by Dr. Hicks and Dr. Roper. The second question is, Is the application of the forceps ever necessary or useful before the full dilatation of the cervix uteri? It has been my custom, in teaching the subject of midwifery, to lay a great deal of stress upon the definition of the termination of the first stage of labour. I think it is very important in reference to the answer to this question. What is the definition of the termination of the first stage of labour? It has generally been held to be the full dilatation of the os uteri, but it is evident to all who have considered the matter carefully, that the full dilatation of the os uteri may not occur, and yet the patient may have arrived at the end of the first stage of labour—that is to say, in cases where the membranes have been ruptured. If the head stays at the brim there is nothing to dilate it; yet, if it be examined, it may be found that the os uteri is in an exceedingly dilatable condition—a condition which does not offer any obstacle to the passage of the head through it. The obstacle is produced by the difficulty at the brim itself. The osseous difficulty is the principal thing, not the condition of the os uteri itself. It is necessary to consider this point if we make any definition as to what is to constitute termination of the first stage of labour. I quite agree with what has been said by several speakers in this debate as to the safety of women before the membranes are ruptured. In a case where the membranes have not been ruptured, I think, with very few reservations, the first stage might be allowed to go on for a considerable length of time; but it is, of course, very different when the membranes are ruptured. We cannot, under such circumstances, I hold, consider the size of the os uteri simply. We must have regard to the condition of the tissues and the os uteri in deciding as to whether anything is necessary to be done or not. The logical conclusion from that statement is that in certain cases of this kind the use of the forceps is necessary. No doubt the number of cases in which the use of the forceps is necessary with the head above the brim is very few indeed. Still, such cases do occur. I could mention a case very much like that of Dr. Hicks, which occurred to me some years ago, where the os uteri resisted very much, but in which I inserted the forceps, and gradually drew the head through it with a perfectly successful result. It took a great deal of time to accomplish. In fact, I endeavoured to imitate nature. Still I did assist the head through the os uteri, supplementing the uterine pains. I conceive that cases do occur in which this is really necessary. With reference to the broad question as to the use of the forceps, I think that is a matter that is really more interesting to the members of this Society at large than the simple applicability of the forceps in the high operation. Confessedly these cases are rare and unusual, but the other class of cases is very numerous indeed, and we have to consider what is the law that should be laid down in reference to the general application of the forceps. Is it a good thing that the forceps should be largely employed, or is it proper that their use should be greatly restricted? I must say I sympathise very much with those who contend that the forceps should be very largely employed, and I think that there are abundant reasons for arriving at the conclusion. There is no stronger reason to be given in favour of that view than this: it is confessedly necessary that gentlemen

who engage in the practice of midwifery should be competent to undertake severe operations. How, I ask, are they to become capable of performing a confessedly difficult operation—namely, the high operation—with the forceps, unless they are perfectly familiar with and accustomed to the low operation? It seems to me that the dexterity they acquire, or should acquire, in the performance of the simpler operation will invariably lead them to sufficient acquaintance with the subject to deal with the difficult and dangerous cases that will now and then necessarily come before them. I therefore sympathise very much with the view of the matter that gentlemen should be encouraged to use the forceps much more frequently than has been the custom. My friend Dr. Savage, at the last meeting of the Society, while he interested us very much by a great many of his remarks, indulged in a style of banter, and seemed to deal with the whole subject of the application of instruments in the practice of midwifery as one that could hardly be sympathised with. I suppose we must take it for what it is worth. It comes from Dr. Savage, and we are always very much amused and interested in hearing what he has to say. I make these observations with the more readiness because I do think there was a great deal in what Dr. Savage said in reference to the necessity for giving nature and other remedies their proper play in dealing with obstetric and midwifery cases—the use of baths, the use of a little time, and various other remedies and methods of assistance. The extraction of a child is undoubtedly to be looked upon as a mechanical thing. I think, also, there is something to be said with reference to the method of applying the forceps. It does not follow that because we have applied the forceps that delivery should be made to occur instantly. I think that the opposite policy is responsible for a great deal of the contumely with which the application of the forceps has been visited at the hands of certain critics. I have certainly seen cases where great harm has been done by the instantaneous delivery of the child in cases where the forceps has been applied. It must be recollected that the forceps is intended simply to supplement the efforts of nature—to assist them; and we are not therefore to extract instantly, the very moment the forceps is applied to the head of the child. Under certain circumstances it is conceivable that a great deal of mischief might be done.

Dr. SWAYNE: At this stage of the discussion I will endeavour to make my remarks as brief as possible, and express no opinion not founded on facts under my own observation. Before the publication of Dr. Johnston's report as to the use of the forceps in the first stage of labour, I had often applied the forceps in the first stage when the os was not fully dilated, but never when it was less than three inches in diameter. Since Dr. Johnston's report I have used it six times in cases where it has been less than three inches in diameter, where the diameter varied from the size of a crown-piece (which is not more than one inch and six-tenths) to three inches. Five of these cases were primiparæ and one of them was a multipara. The result was favourable to all the mothers and children with the exception of one child, which was still-born, and which had the skin peeled off, showing that it had been dead for several hours; therefore the forceps could not have been responsible for the death. In all these cases the membranes had been ruptured for some hours, and the os was not fully dilated, but it felt soft and dilatable. The labour appeared to be slow, not so much from the rigid os uteri as from the arrest of the head. This was very marked in one case—that of the multipara. I had attended her in two labours which were easy because the children were small and females, but the third labour was a difficult one. The membranes had been ruptured four hours, and the os uteri remained about three inches in diameter. The child was arrested at the brim of the pelvis, from want of proportion between the head and the pelvis. As Dr. Hewitt has truly remarked, the labour may be said to have been in the second stage. The first stage was over—the uterus had expended its power in dilating the os, but the head did not descend. It was then expending its power in forcing down the head. I was convinced that the bad symptoms resulting from a prolonged second stage would have arisen if the labour had been allowed to go on in any of these cases. I felt grateful to Dr. Johnston for having pointed out that the forceps may be used with safety where the os is not nearly so much dilated as I thought before would be necessary—in fact, where it is not half

dilated. With regard to the second subject, as to turning, and as to the alternative use of the long forceps, I do not think I can do better than refer to a case in which I induced premature labour about a month ago. In this woman I induced premature labour for the eighth time. Before she came under my care she had had craniotomy performed twice at the full time by another practitioner, and therefore I recommended the induction of premature labour. I had induced it in three labours at the seventh month, and the children were born without difficulty, but they did not survive their birth more than twenty-four hours; therefore in the next five labours I thought it better to induce the labour at the eighth month so as to give a chance of turning, and I had every reason to feel satisfied with the result, for I saved four children out of five labours. There was no particular difficulty in turning, except in the first case and in the last. In the first case I could not get the head through in time, and the child died; the head stuck in the brim of the pelvis. In the last case, the child seemed to be larger than usual, and I expected the same difficulty as in the first case, but by means of a very strong pull, making firm pressure on the hypogastric region, the head came through with a jerk. The child was at first still-born, but was easily resuscitated. I have here a cast of a head which will show the effect produced upon the child. The head is rather a large one for a child of eight months.

The PRESIDENT: I may remind Dr. Swayne that the discussion is limited to the use of the forceps in lingering labour, and it hardly applies to cases of contracted brim or turning. Turning hardly comes under the head of our discussion.

Dr. SWAYNE: Then I will bring my remarks to a close. I was going to say that I think, in cases of this kind, turning is preferable to the use of the forceps. My own experience leads me to three conclusions. First, that the use of the forceps is proper and safe before the os is fully dilated, when there is any arrest which prevents it descending upon the os uteri; but, in my own opinion, the use of the forceps is improper where the delay arises simply from rigidity, and not from arrest of the head. Secondly, where the head is arrested at the brim of the pelvis, and the pelvis is normal and not irregular in shape, as a general rule the use of the forceps is preferable to turning. Thirdly, where the pelvis is irregular, and the head very high above the pelvis, turning is preferable to the forceps.

The PRESIDENT: I should not like this discussion to close without saying a single word with regard to the subject under consideration. It is certainly not my intention at this late period of the meeting, and after having heard so many observations, to enter at any length into the subject before us in the way of argument. I have frequently on other occasions had an opportunity of expressing my opinions on the subject to this Society, and I have also in my published work on midwifery (for the first time, I believe, in any systematic treatise on the subject published in this country) advocated a much more frequent use of the forceps in delivery than had been previously recommended. I believe that, partly from the one fact and partly from the other, I have the reputation of recommending instrumental interference with a frequency which many of my obstetrical friends believe to be both unnecessary and injurious. Now, in reference to this point, I may remark that, whenever I have spoken or written on this subject, I have taken the greatest possible pains—I am afraid not always successfully—to point out that that recommendation is strictly limited to one particular class of cases, that is, the cases in which the head is arrested low down in the cavity of the pelvis, or on the perineum, and in which only a slight *vis à tergo* is required to effect delivery. I have always endeavoured to point out that the arrest of the head high in the pelvis is a very serious operation, and one not to be lightly undertaken. As regards the alternatives for this practice, and especially the alternative which is most usually resorted to—that is, the administration of ergot—I think there is hardly any fact in medicine which is more certainly proved than the immeasurable superiority of the forceps in effecting delivery in retarded labour. No better illustration of that can be given than the observations which fell from one of the speakers at our first meeting Mr. Alderson,—and all the more so since it seemed that Mr. Alderson did not quite appreciate the deductions to be drawn from those statements. He told us that when he commenced

practice he never used the forceps at all, or hardly ever, but that he used ergot very frequently. The result was, as he went on he discarded the use of ergot, and used the forceps very largely. Then he told us that, curiously enough, in the first years of his practice he used to have an enormous number of still-births, and in later years he never had any still-births at all. Of course the obvious deduction from that was, that he ergotised his patients when he commenced practice and produced these still-births, which he saved by delivering with the forceps in the latter years of his practice. So much for the use of the forceps as regards the child. As regards the mother, Dr. Daly has properly pointed out, and I have always insisted upon, the enormous gain to the mother of saving her many hours of horrible suffering and anguish which it is distinctly the province of the physician to save her if he can. And, above all, there is the increased safety and rapidity of convalescence and the more satisfactory convalescence following a short delivery, which I believe is a strong argument for the more early application of the forceps in simply retarded labour than has been customary. To use a homely simile, I would say that these cases are like that of a man who has in charge a horse dragging a cart up a hill. If we are in charge of such an operation we have, as a distinguished politician would say, three courses open to us. We may either leave the wearied animal to draw his burden up the hill in the best way he can, and possibly he may arrive there or he may not; or we may spur and urge him on to increased effort, possibly with success, but more likely there will be a break-down; or we can adopt the other expedient of tacking on another horse, giving a little extra assistance. That seems to be exactly what we do when we apply forceps in cases of this kind. If I might make a criticism upon this debate, it would be to the effect that a great deal too much has been said about the application of the forceps before the complete dilatation of the os uteri. In talking to me the other day on this debate, having read it in the journals, a distinguished metropolitan surgeon said he was horrified to find that so obviously dangerous a practice was so customary amongst obstetricians. Now, I am not surprised at that misconception on his part, because we have been talking during these three nights to an extraordinary extent on this subject. Probably the novelty of the subject and the apparent boldness of it have given undue prominence to it in our debates; but I am satisfied that, as a matter of fact, obstetricians are not in the habit of using the forceps with an undilated os uteri to anything like the extent to which an outsider might suppose from listening to our debates. If my own experience is any guide, I should say that the cases in which it is necessary, or even contemplated, are of very great rarity. Another criticism that I might make is, that I do not think sufficient importance has been paid to the application of pressure as an alternative in cases of lingering labour—systematic pressure applied to the uterus. I am afraid my friend Dr. Roper has not given it the fair trial which I am certain it deserves, because I believe there are few improvements in modern midwifery of really greater value than the systematic use of uterine pressure, or expression of the fœtus, as it is sometimes called in Germany. It requires a little custom and habit to know in what class of cases it is applicable, and how to apply it; but, having gained that experience, I am quite satisfied that the very greatest possible advantages may be derived from it. I have over and over again succeeded by expression, not in delivering the fœtus entirely—although I believe that even that is possible, and I have related cases of that kind in a paper on the subject—but in pressing down the head from the brim on to the lower part of the pelvis, and thus converting what might have been a very difficult high forceps case into a perfectly simple low forceps operation. The subject would require a great deal of time to discuss with anything like the detail which its importance merits; therefore I do not say any more about it at present. It now only remains for me to fulfil a very pleasant duty, which I am sure I shall have the authority of the members of the Society for performing—that of offering to the gentlemen who have taken part in these discussions, especially to those gentlemen who have done us the honour of coming from Ireland and Scotland and distant parts of the country, our cordial thanks for their kindness in favouring us with their experience on this subject.

(To be continued.)

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the monthly examinations for the licences of the College held on Monday, Tuesday, Wednesday, and Thursday, July 7, 8, 9, and 10, the following candidates were successful:—

For the First Professional Examination—

Baylor, Robert Jonathan.	Grant, Jane Russell.
De la Cherois, Annie.	Marston, Alice Kyme.
Douglas, Janet Monteath.	Nicholas, James Hamilton.

Vickery, Alice.

For the licence to practise Medicine—

Banks, Henry.	O'Connor, Charles Joseph.
Croly, Arthur England Johnson.	Ogden, William Henry.
D'Alton, Peter Reynolds.	Reddy, Bernard.
Dugdale, William.	Shackleton, Edmund.
Fitzpatrick, Thomas.	White, H. Lawrence Esmonde.
Mackenzie, Murray.	White, Vincent.
Meagher, Edward Patrick.	Wolseley, William Owen.
Morrissey, Edward.	Young, George Harrison.

For the licence to practise Midwifery—

Byers, John William.	O'Connor, Charles Joseph.
D'Alton, Peter Reynolds.	Reddy, Bernard.
Darling, John Singleton.	Shackleton, Edmund.
Egan, Constantine John.	White, H. Lawrence Esmonde.
Fitzpatrick, Thomas.	White, Vincent.
Magill, Charles.	Wolseley, William Owen.

Young, George Harrison.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at meetings of the Board of Examiners on the 8th, 9th, and 10th inst., and when eligible will be admitted to the Pass Examination, viz.:—

Adcock, Harry, student of the Liverpool School.
 Bagshaw, T. W., of St. Bartholomew's Hospital.
 Baildon, F. J., of the Edinburgh School.
 Bendall, Howard, of University College Hospital.
 Benham, R. F., of St. George's Hospital.
 Bird, Ashley, of the Edinburgh School.
 Boyton, E. F. A., of St. Bartholomew's Hospital.
 Burman, F. J., of the Leeds School.
 Castor, J. C., of the Aberdeen School.
 Cleaver, J. C. C., of Kingston, Canada.
 Cleaver, W. F., of Kingston, Canada.
 Deane, H. E., of the Middlesex Hospital.
 Everard, H. N., of the Edinburgh School.
 Garrett, O. J., of St. Bartholomew's Hospital.
 Griffiths, C. T., of Guy's Hospital.
 Henderson, W. H., of Kingston, Canada.
 Herbert, J. W. C., of the Manchester School.
 Hill, John, of the Charing-cross Hospital.
 Lawford, J. B., of McGill School.
 Mason, John, of the Cambridge School.
 Mukhopadhyay, S. C., of the Aberdeen School.
 Murray, H. W., of the Dublin School.
 Orr, W. Y., of the Edinburgh School.
 Price, T. W., of the Birmingham School.
 Priestley, John, of the Manchester School.
 Prowde, E. L., of the Newcastle School.
 Scott, E. S., of the Edinburgh School.
 Sieveking, H. E., of St. Mary's Hospital.
 Smailes, F. W., of the Leeds School.
 Smith, T. H., of the Leeds School.
 Southcombe, A. G., of St. Bartholomew's Hospital.
 Strong, H. B., of University College Hospital.
 Style, R. G., of the Sheffield School.
 Viljoen, A. G., of St. Bartholomew's Hospital.
 Waldy, John, of the Newcastle School.
 Wallers, William, of the Manchester School.
 Wells, A. P. L., of the Edinburgh School.
 Williams, J. A., of the Aberdeen School.
 Wilson, T., of the Glasgow and Westminster Hospitals.

The following gentlemen passed on the 11th inst., viz.:—

Back, H. H., student of St. Bartholomew's Hospital.
 Baxter, W. W., of University College Hospital.
 Cook, J. W. C., of the London Hospital.
 Cranstone, W. L., of University College Hospital.
 Hazel, Edward, of the Middlesex Hospital.
 Holt, H. L., of University College Hospital.
 Leon, G. E., of St. Thomas's Hospital.
 Oakley, A. R. H., of St. Bartholomew's Hospital.
 Paine, G. R. R., of St. Mary's Hospital.
 Pickthorn, T. R., of St. George's Hospital.
 Rowlands, T. F. W., of Guy's Hospital.
 Thomas, G. T. H., of St. George's Hospital.

The following gentlemen passed on the 12th inst., viz.:—

Bass, Frederick, student of St. Bartholomew's Hospital.
 Bertram, Benjamin, of St. Bartholomew's Hospital.
 Butler, F. H., of St. Mary's Hospital.
 Case, William, of University College Hospital.
 Claremont, L. B., of University College Hospital.
 Curtayne, H. M., of University College Hospital.
 Evans, W. H., of St. Bartholomew's Hospital.
 Fairles, A. W., of St. Mary's Hospital.
 Harper, C. S., of Guy's Hospital.
 Kendall, T. M., of St. Bartholomew's Hospital.

Knaggs, H. E., student of University College Hospital.
 Lyster, C. R. C., of the Charing-cross Hospital.
 Michell, Mannell, of St. Bartholomew's Hospital.
 Morse, Edward, of St. Bartholomew's Hospital.
 Richards, W. B., of the Cambridge and London Hospitals.
 Ritson, Robert, of St. George's Hospital.
 Rooke, Charles, of the Westminster Hospital.
 Teevan, Henry, of the Middlesex Hospital.

The following gentlemen passed on the 14th inst., viz.:—

Atkinson, T. R., student of St. Bartholomew's Hospital.
 Boxall, Robert, of University College Hospital.
 Ellison, J. C., of St. Bartholomew's Hospital.
 Goddard, C. E., of King's College Hospital.
 Harrison, J. W., of St. George's Hospital.
 Hill, J. S., of University College Hospital.
 Inger, J. W., of University College Hospital.
 Jones, Evan, of University College Hospital.
 Knight, Edward, of St. Bartholomew's Hospital.
 Roberts, Edward, of Guy's Hospital.
 Smith, P. C., of St. Thomas's Hospital.
 Stollmeyer, J. A. R., of University College Hospital.
 Tilly, Alfred, of St. Mary's Hospital.
 Trevor, H. O., of St. Thomas's Hospital.
 Walters, St. D. G., of the Cambridge School.

The following gentlemen passed on the 15th inst., viz.:—

Batten, R. D., student of St. Bartholomew's Hospital.
 Chalmers, A. H., of St. Bartholomew's Hospital.
 Duble, W. B. C., of St. Bartholomew's Hospital.
 Gale, A. K., of the London Hospital.
 Gravely, Frank, of University College Hospital.
 Hockridge, T. G., of St. Thomas's Hospital.
 Martin, H. J. W., of University College Hospital.
 Pocock, Alfred, of St. Thomas's Hospital.
 Reid, St. George, of St. George's Hospital.
 Shore, H. G., of St. Bartholomew's Hospital.
 Tomney, J. J., of Guy's Hospital.
 Wallace, A. C., of St. Thomas's Hospital.
 Wigan, C. A., of the Charing-cross Hospital.
 Williams, J. F., of the Charing-cross Hospital.
 Wilson, Edward, of University College Hospital.

The following gentlemen passed on the 16th inst., viz.:—

Allan, James, student of the Aberdeen School.
 Bate, Hele, of St. George's Hospital.
 Da Costa, Edmund, of University College Hospital.
 Durant, R. J. A., of St. Thomas's Hospital.
 Farebrother, W. A., of the Charing-cross Hospital.
 Fletcher, G. A. C., of St. Bartholomew's Hospital.
 Kemble, A. C., of the Westminster Hospital.
 Ochiltree, E. G., of University College Hospital.
 Roberts, Llewellyn, of the Charing-cross Hospital.
 Roosmale-Cocq, F. O. Y., of University College Hospital.
 Smith, G. T., of St. Bartholomew's Hospital.
 Van Buren, E. C. H., of St. George's Hospital.

Out of the 180 candidates examined at this "primary," and which is still going on, sixty-five having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their Anatomical and Physiological studies for three months, including twenty-two candidates who had an additional three months.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 10:—

Cotman, John Sell Edmund, Twickenham.
 Greensill, James Heynes, Great Whitby.
 Lewis, John George Stephen, Windsor-road, Ealing.
 Parr, John Frederick Fitzgerald, Sheffield.
 Teevan, Alfred, Hammersmith.
 Unthoff, John Caldwell, Anerley.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Gould, William Robert, University College.
 Haig-Brown, Clarence William, St. Thomas's Hospital.
 Sequeira, Henry James, London Hospital.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

WILLIAMS, W. ROGER, M.R.C.S., L.R.C.P. Lond.—Demonstrator of Anatomy at the University College.

NAVAL, MILITARY, &c., APPOINTMENTS.

ADMIRALTY.—The undermentioned Staff-Surgeons have been promoted to the rank of Fleet-Surgeon in her Majesty's Fleet, with seniority of July 3:—Henry Frederick Norbury and William Digby Longfield.

BIRTHS.

BARNES.—On July 12, at Hammersmith, the wife of E. C. Barnes, M.R.C.S. Eng., of a son.
 FLETCHER.—On July 13, at 149, Camden-road, N.W., the wife of J. Corbet Fletcher, M.D., of a daughter.
 FRY.—On July 9, at Belvoir, Swansea, the wife of J. Farrant Fry, L.R.C.P. Lond., of a son.

- HARDY.**—On July 9, at The Grove, Dulwich, the wife of H. Nelson Hardy, F.R.C.S.E., of a son.
- LACY.**—On July 14, at 5, Ovington-square, S.W., the wife of C. de Lacy Lacy, M.B., of a daughter.
- PIGOTT.**—On July 6, at Hartley Court, Reading, the wife of Royston Pigott, M.D., F.R.S., of a daughter.
- TRIMNELL.**—On July 11, at 17, Hatherley-grove, Bayswater, the wife of Surgeon-Major D. W. Trimnell, M.R.C.S. Eng., Indian Medical Department, of a son.

MARRIAGES.

- ASHBY—Tuke.**—On July 15, at Manchester, Henry Ashby, M.D., to Helen, eldest daughter of the Rev. F. E. Tuke, Vicar of Borden, Kent.
- COOPER—BROCKBANK.**—On July 9, at Liverpool, Peter Cooper, M.R.C.S.E., L.R.C.P. Lond., of Leyland Villa, Eltham-road, Lee, S.E., to Clarissa, third daughter of Robert Brockbank, Esq., of 20, Huskisson-street, Liverpool.
- HALE—KING.**—On July 15, at Westbourne-park, Edward Mathew, second son of Robert Douglas Hale, M.D., of Harley-street, Cavendish-square, to Rose Pauline, eldest daughter of the late William Thackrah King, Esq., formerly of Marseilles.
- LEONARD—WALSH.**—On July 8, at Dundrum Castle, Henry James Leonard, M.D., of Broomhill, Longridge, to Florence Amy, only daughter of the Hon. Judge Walsh.
- SKINNER—SUMMERSON.**—On July 9, at Hemingbrough, East Yorkshire, Charles Gordon Lennox Skinner, M.D., of Harpurhey, Manchester, to Emily Reinhardt, younger daughter of the late George Summerston, of Pontefract, late of Leeds.
- WOOLLETT—CASTLE.**—On July 8, at Newport, Isle of Wight, John Broadley Woollett, of Stoke Brecon, North Hants, to Fanny Hutton, second daughter of Henry Castle, M.D., of Newport, Isle of Wight.

DEATHS.

- BLYTH, EDWARD JAMES, M.R.C.S.E., L.S.A.,** at Whitchurch, Oxon, on July 11, aged 53.
- BRENNAN, ROBERT, M.R.C.S.,** at 7, Guildford-street, South Lambeth, on July 9, aged 38.
- BUSZARD, MARSTON, M.D.,** at Lutterworth, on July 11, in his 78th year.
- FENN, REGINALD ALSTON,** youngest son of Edward L. Fenn, M.D., at 1, Portland-terrace, Richmond, Surrey, on July 11, aged 13 months.
- KELSALL, HENRY, M.R.C.S. Eng.,** Surgeon-Major 1st Division Royal Horse Artillery, at Dakka, Afghanistan, of heat-apoplexy, on June 6, in his 46th year.
- PHILPOT, ALLAN HAMILTON,** third son of Harvey J. Philpot, L.R.C.P., etc., of Cirencester, at Cheltenham, from the effects of a gunshot wound in head accidentally received on the 5th inst., on July 9.
- SARGANT, WILLIAM HENRY, L.S.A.,** at Bletchingley, Surrey, on July 12, aged 72.
- TERRY, SEPTIMUS, L.R.C.P. Lond., R.N.,** Staff-Surgeon of H.M.S. *Charybdis*, on board the P. and O. Co.'s ship *Lombardy*, in the Red Sea during his passage home, invalided, on July 3, aged 40.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

WILTS COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be unmarried, duly qualified, and registered. Applications, stating age, and accompanied by not more than six recent testimonials, to Dr. Cooke, Wilts County Lunatic Asylum, Devizes, on or before July 23.

WINDSOR ROYAL INFIRMARY.—House-Surgeon. Applications, with testimonials, to the Secretary, on or before July 30.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Hay Union.—Mr. Clouston has resigned the Radnorshire District; area 16,264; population 3898; salary £45 per annum.

Mitford and Launditch Union.—Mr. H. H. Sheppard has resigned the Francham District; area 17,051; population 3693; salary £55 per annum.

Ripon Union.—Mr. T. F. Frankland has resigned the First District; area 17,374; population 8948; salary £65 per annum.

APPOINTMENTS.

Carlisle Union.—William Brown, M.R.C.S. Eng., L.R.C.P. Edin., to the Caldewgate District.

Holborn Union.—Robert Bruce, jun., M.R.C.S. Eng., L.S.A., to the Seventh District.

Yeovil Union.—Charles E. Alford, M.R.C.S. Eng., L.S.A., to the Seventh District.

HYDROPHOBIA IN PARIS IN 1878.—In the report of the Préfet de Police it is stated that 511 cases of rabies were brought to the Prefecture, 390 of these being examples of furious rabies, and 121 exhibiting the disease in a milder, non-aggressive form. There were 103 persons (67 adults and 36 children) bitten, and the known mortality has been 30, which corresponds to preceding statistics—nearly 1 in 3. The number of dogs that are known to have been bitten is 454, and of cats 24. Besides the above mentioned cases of rabies, there were taken to the Veterinary School at Alfort 102 living rabid dogs, 8 which had died, and 124 supposed to have been bitten, making in all 234. But these numbers even do not give complete expression to the truth, for many cases of rabies have been taken also to establishments for the treatment of

diseases of animals, without any return being made to the police. Of the 512 cases reported to the Prefecture, 141 occurred during the first quarter of 1878, 175 during the second, 133 during the third, and 53 during the fourth quarter. The great difference observed in the numbers occurring in the last quarter and the three preceding quarters is due to the very energetic measures which had been adopted with regard to wandering dogs in the months of July and August: of these there were seized 3383 in July, and 1334 in August, and nearly 4500 of these were killed. All the animals that had been bitten, or were even suspected of having been, were also killed. These energetic measures were so successful that the number of cases during the last three months of the year has been reduced to nearly a third, and the same result has been observed during the first months of 1879. If dogs are to be allowed to wander about the streets, it is essential that some one should be responsible for them, the guarantee for which is the name and address of the owner being inscribed on the collar; and any dog not furnished with this should, at all seasons of the year, be immediately seized and destroyed.—*Union Méd.*, July 5.

THE KENT BENEVOLENT MEDICAL SOCIETY.—The annual meeting of this Society was held in Canterbury on Wednesday last; George Rigden, Esq., President, occupied the chair. The audited accounts of the preceding year were presented by the Treasurer and signed by those present. It appeared that there are £8100 invested in the Three per Cent. Consols, and that the annual subscriptions from members amount to rather more than £170. Grants ranging from £20 to £50 were made to ten applicants, who were either distressed members or widows or orphans of deceased members. Fourteen new members were elected. It is a matter of regret that a Society so useful both in its provident and benevolent aspect does not meet with universal support within the ranks of the profession in the county, and a wide sympathy from the general public, in whose behalf in the treatment of infectious diseases many medical men are incapacitated or lost to their families before they have had an opportunity of providing for them.

A "CONVENIENT" NAME.—Dr. Robinson, in the *Louisville Med. News*, June 7, speaks of a new instrument "which I have named for convenience Perineosinuexerceinator, the last paragraph of which being derived from the Greek meaning to explore." The object is the demonstration of "both the presence and the absence" of sinuses of the perineum.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—*Bacon.*

F.R.C.S.—1. Mr. George B. Childs, F.R.C.S., is the Surgeon to the City Police. 2. We cannot say; but think from £800 to £1000 per annum.

Medicine and Missionaries.—According to advices from Fiji, as to the instructions recently issued, that in all cases of deaths registered the "cause" is to be stated, the result is that in the majority of cases the native scribes who fill up the form attribute death to the medicine given by missionaries.

St. Thomas.—Mr. Le Gros Clark, who has just ceased to be a member of the Council of the College of Surgeons, still retains his seat as a member of the Court of Examiners. He was admitted a member February 15, 1833, elected one of the honorary Fellows December 11, 1843, elected on the Council in 1864, Professor of Human Anatomy and Surgery in 1867, Court of Examiners in 1870, President in 1874, and Hunterian Orator the following year, is still Chairman of the Board of Examiners in Dental Surgery, and has served on nearly all, if not all, the Committees of the College.

Scarlet Fever and Milk-Cans.—A farmer, also a landlord of an hotel in the neighbourhood, was summoned at the Rochdale Police-court, a few days since, charged with handling vessels used for containing milk for sale, he having been in contact with persons suffering from scarlet fever. He was also charged with taking part in his trade as a cowkeeper under the same circumstances. The evidence of a superintendent of police was to the effect that the defendant was a purveyor of milk, that it had come to his knowledge the defendant's family was suffering from infectious disease, and he in consequence took a doctor to the farm, who could prove that the defendant's children were ill from scarlet fever, and that the milk-cans had been placed in a room downstairs used by the family. The defendant urged that he was not aware, till informed by the doctor, that his children had scarlet fever—he thought they had only slight colds; and he was ignorant that he had committed any offence against the law. The magistrates accepted this statement, and did not impose a penalty, although they stated it could not be less than £20, and the defendant was only ordered to pay the costs.

Swimming Baths for Children.—The teaching of children, both male and female, how to swim, is, we are glad to notice, being practically dealt with by several public bodies having the charge of children—an example we hope to see largely imitated not only by similar official boards, but by all large public and private educational establishments. The Bethnal-green Board have added a bathing-pool to their schools at Leyton, in which all the workhouse children may learn to swim. At the Orphan Working School, in Maitland-park, Haverstock-hill, all the children (between 500 and 600) are taught this useful art.

THE CASE OF THOMAS MILLERCHIP.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Would you kindly publish the subjoined list of subscriptions received since my last communication:—

Mr. Moore, Reading	... ..	£0 5 0
Sir Henry Thompson	... ..	2 2 0
Dr. Guess	... ..	0 10 0
J. P. Way	... ..	0 5 0
Mr. Vardy	... ..	0 5 0
Mr. A. L. Bentham	... ..	0 5 0
Mr. Blackman	... ..	0 5 0
Mr. Morley	... ..	0 5 0
Mr. Welsh	... ..	0 5 0

(All the above sums were collected by Mr. Knott of Portsmouth, who also subscribes 10s.)

Mr. Wallis, Brentwood 1 1 0

The total received up to date amounts to £49 11s., £30 of which has been paid over. I have still several promises to come in.

Dean-street, July 16. I am, &c., JOSEPH ROGERS.

COMMUNICATIONS have been received from—

Dr. E. I. SPARKS, Crewkerne; Mr. W. C. AMORY, Swansea; "M.D., M.A.," London; Mr. J. B. BLACKETT, London; Dr. JAMES H. BENNETT, Liverpool; THE REGISTRAR OF APOTHECARIES' HALL, London; THE SECRETARY OF THE SOCIETY OF ARTS, London; Mr. D. COLQUHOUN, London; THE SECRETARY OF THE SANITAS COMPANY, London; THE REGISTRAR-GENERAL, Edinburgh; Mr. J. T. W. BACOT, Seaton; Mr. T. W. H. GARSTANG, Oakleigh; Mr. TRIMEN, Liverpool; Dr. J. N. VINEN, London; THE SECRETARY OF THE BROMPTON HOSPITAL FOR CONSUMPTION; Mr. J. E. INGPEN, London; Dr. RUSSELL, Birmingham; Dr. ED. G. BERNINGHAM, New York; Dr. J. W. MOORE, Dublin; Dr. GILLESPIE, London; Dr. F. CHURCHILL, London; Mr. THOMAS SOUTHER, Canterbury; Mr. FRANCIS FOWKE, London; Mr. A. DAVIDSON, London; Mr. T. M. STONE, London; Mr. CHATTO, London; Dr. R. LIVEING, London; Dr. J. ROGERS, London.

BOOKS AND PAMPHLETS RECEIVED—

Dr. Victor Grazi, Hygiene of the Sea, translated by F. W. Wright; J. P. McNeill, M.D., T.C.D., A Treatise on Hydrophobia—Christopher Heath, F.R.C.S., The Student's Guide to Surgical Diagnosis—Reginald E. Thompson, M.D. Cantab., The Physical Examination of the Chest in Health and Disease.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Revue Médicale Française et Etrangère—Gazette Hebdomadaire des Sciences Médicales de Montpellier—Brain—Practitioner—El Siglo Médico—Dublin Journal of Medical Science—Boston Journal of Chemistry—Oesterreichische Ärztliche Vereinszeitung—New York Medical Journal—American Bookseller—North Carolina Medical Journal—Westminster Review—Revue d'Hygiène—Revue des Sciences Médicales.

APPOINTMENTS FOR THE WEEK.

July 19. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

21. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

22. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

23. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

24. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

25. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

QUERKETT MICROSCOPICAL CLUB (University College), 8 p.m. Annual General Meeting.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 12, 1879.

BIRTHS.

Births of Boys, 1302; Girls, 1302; Total, 2604.

Average of 10 corresponding years 1869-78, 2201'6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	598	581	1179
Average of the ten years 1869-78	736'5	669'9	1406'4
Average corrected to increased population ... ..	...	...	1505
Deaths of people aged 80 and upwards ... ..	...	...	84

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West	561359	1	3	6	2	5	...	1	1	7
North	751729	3	18	10	4	9	...	1	...	4
Central	334369	...	9	1	...	2	...	1	...	2
East	639111	...	24	7	3	12	...	4	...	10
South	967692	...	13	14	2	8	...	2	2	6
Total	3254260	4	67	38	11	36	...	9	3	29

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	29'566 in.
Mean temperature ... ..	...	53'0°
Highest point of thermometer ... ..	...	72'0°
Lowest point of thermometer ... ..	...	46'3°
Mean dew-point temperature ... ..	...	50'3°
General direction of wind ... ..	...	S.W. & W.
Whole amount of rain in the week ... ..	...	0'58 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 12, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending July 12.		Deaths Registered during the week ending July 12.		Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
			Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Weekly Mean of Mean Daily Values.	In Inches.	In centimetres.				
London	3620868	48'0	2304	1179	72'0	46'3	56'0	13'33	0'58	1'47		
Brighton	105608	44'9	48	27	67'8	47'7	55'8	13'23	0'63	1'60		
Portsmouth	131821	29'4	87	39	...	...	...	...	...	...
Norwich	85222	11'4	52	27	71'0	48'5	54'8	12'67	0'26	0'66		
Plymouth	74293	53'3	47	24	65'5	51'5	58'5	13'61	0'47	1'19		
Bristol	209947	47'2	135	86	65'8	43'5	54'7	12'61	1'11	2'82		
Wolverhampton	75100	22'1	58	25	64'0	46'2	52'5	11'39	0'83	2'11		
Birmingham	388834	46'3	276	126	...	...	...	...	...	...
Leicester	125622	39'3	85	49	68'8	46'0	54'3	12'39	0'63	1'60		
Nottingham	169398	17'0	97	53	70'5	45'6	55'7	13'17	0'50	1'27		
Liverpool	538338	108'3	392	192	60'8	50'3	53'4	11'89	0'57	1'45		
Manchester	361819	84'3	250	140	...	...	...	...	...	...
Salford	177849	34'4	149	68	...	...	...	...	...	...
Oldham	111318	23'9	63	28	...	...	...	...	...	...
Bradford	191046	26'5	111	75	63'6	46'6	53'6	12'01	0'92	2'34		
Leeds	311860	14'5	217	96	66'0	45'0	54'6	12'53	0'95	2'41		
Sheffield	297138	15'1	192	84	66'0	44'0	53'4	11'89	0'81	2'06		
Hull	146347	40'3	102	60	...	...	...	...	...	...
Sunderland	114575	41'4	81	44	72'0	49'0	55'6	13'12	0'54	1'37		
Newcastle-on-Tyne	146948	27'4	101	71	...	...	...	...	...	...
Edinburgh	226075	53'9	139	77	61'2	40'3	52'9	11'61	1'39	3'53		
Glasgow	578158	95'8	400	245	64'0	48'0	55'6	13'12	0'60	1'52		
Dublin	314666	31'3	194	135	63'3	45'1	54'9	12'72	1'22	3'10		
Total of 23 Towns in United Kingdom	8502896	38'6	5380	2949	72'0	40'3	54'6	12'53	0'75	1'90		

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29'57 in. The lowest reading was 29'28 in. on Tuesday evening, and the highest 29'81 in. on Friday at noon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

CONCLUDING ADDRESS

ON THE

USE OF FORCEPS AND ITS ALTERNATIVES
IN LINGERING LABOUR.*Delivered at the Debate on the subject at the Obstetrical Society of London, July 2, 1879.*

By ROBERT BARNES, M.D., F.R.C.P.,

Physician-Accoucheur to St. George's Hospital.

DR. BARNES, addressing the Society, began: Allow me to say, in the first place, that I think the interesting discussion we have had, and the eminent men who have spoken, testify to the importance of the subject, and are a complete answer to any doubt that may have been felt as to the utility of a discussion on the forceps. Then I may urge as another reason that we have had a complete picture of what may be called the modern practice of midwifery with the use of the forceps in contrast to the picture presented by a gentleman who went to sleep twenty years ago when they did not use the forceps, and who has come here and delivered a Rip van Winkle sort of speech, telling us that we are all wrong—expecting, as it seems, that the world has been standing still while he has been asleep. Now, I should like to say a word or two about the definition of the high operation, which appears not to be thoroughly comprehended. The terms “high” and “low” operation have been introduced by Dr. M’Clintock, but I should prefer to make a division into three operations. First, there is what may be called the low operation, performed entirely in the second stage of labour when the head is in the pelvis that I should prefer to call the intra-pelvic application of the forceps. Then there is another class of cases a little higher up, where the head of the child is in the brim: that I should call the brim operation, as distinct from the low operation, and also from the high operation, where the head is above the pelvic brim, which may be called the supra-pelvic operation. As to the state of the os uteri in the advance of labour, as fitting it for the operation, we will discuss that by-and-by, when we come to speak of the dilatation of the os uteri in an imperfectly dilated uterus. The numerous cases that occur of arrest of the head in the pelvic cavity I will not dwell upon now. There is a general consensus of opinion and practice as to the propriety of not letting the head lie in the pelvis very long. At the same time I should say that the practice mentioned by Dr. Daly and some others of putting on the forceps as soon as the head is within reach, or nearly so, is not good practice. So long as the uterus is acting fairly without spasmodic action, the head advancing slowly and the parts relaxing, and you know that the patient will be delivered in a few hours without any great tax upon her powers, and so long as there is a quiet, regular pulse, I say it is not judicious to use the forceps. I say it deliberately, although I can well understand that where a man is in a hurry to get away, and he thinks the patient is suffering because, perhaps, he suffers himself, he will put on the forceps too soon. I quite sympathise with what Dr. Hewitt has said, that it is allowable to put on the forceps sometimes in cases where they are not absolutely necessary, with a view to acquire the skill requisite to enable the practitioner to undertake more severe operations. I see no great harm in that, but I should like to say a word or two on what may be called the ethical side of the question. I should generally concur in what Dr. Thorburn said, that we are not to put on the forceps for our own convenience, but solely under circumstances in which the instrument is required by the patient. But there is another aspect of the question. We must bear in mind that the country practitioner has the charge not of one patient only, but of a number of others who have no resource but in him. Now, if he spends a great deal of time over a multipara, with the child’s head in the pelvis, knowing that he can apply the forceps and deliver in a few minutes with perfect safety, and

perhaps advantage, and knowing that he has an urgent case a little further off requiring instant attendance, I say he is justified in doing it. That is not regarding simply his own convenience, but the interests of his patients. We are not to look at a country practitioner in the same light as we should regard a practitioner in town, where we could put another person in charge and go on to the more urgent case. So that the principle I have mentioned must be taken with some qualification and reserve. There are cases in which intervention is necessary. I am speaking now chiefly of intra-pelvic cases where the child is delayed in the pelvis and where expectancy is exhausted. As to the employment of the ergot, I should like to dismiss that at once as an alternative to forceps. I should indeed like to extend what I am going to say to the entire application of ergot, whether in intra-pelvic, brim, or supra-pelvic cases, although the impropriety of using ergot increases enormously as we ascend towards the higher cases. I can hardly refer to the evidence of Dr. M’Clintock, Dr. Bassett, and others who approve of ergot, without considerable diffidence. On the other hand, we know that Dr. M’Clintock does not rely so much upon the forceps as I do and as many others do, that he has not acquired that confidence in the instrument that we have. He trusts to ergot, and I think he trusts to it too long. I was glad to hear several speakers object to it, and that our President as a rule does not approve of it. There is now a considerable amount of evidence showing that ergot is not to be trusted. As to Dr. Edis’s argument that ergot should not be given when the patient is beginning to flag, that is the time when ergot is more dangerous; that is the time when the woman is exhausted, and wants help, and ergot does not help her, but the forceps will. That applies strongly to the arrest of the head in the brim or above the brim; it is just then that we cannot tell what difficulties may arise in the further progress of the head, and if you give ergot you may do mischief by rupturing the uterus or increasing exhaustion and pressure on the soft parts. Although we may be justified in giving ergot when the head is nearly on the point of being born, we are not justified in giving it in any of the higher cases. I say this the more especially because there is nothing that ergot will do in these cases that cannot be done more safely and effectively by the forceps. In these cases we may as well give up ergot, and trust to the forceps. I say nothing as to the use of ergot in arresting hæmorrhage, because that is beyond the present question; nor will I dwell upon the question whether it injures the child or not. The President has quoted the evidence of Mr. Alderson. I believe there is a great deal of evidence to show that ergot is attended by larger foetal mortality than the forceps in cases where one might be used instead of the other. With regard to the alternative of expression or squeezing out, I was rather glad to hear the emphatic protest against it from Dr. Atthill, and also from Dr. Roper, who equally condemned it. I do not gather from the President’s observations that he entirely approves of it as an alternative *per se*, as the sole means of effecting delivery, but he recommends it rather to assist the forceps or other means. I was house-surgeon to a lying-in hospital nearly forty years ago, under the late Dr. Bloxham, and I remember having impressed upon me the importance of expression or squeezing out or down in all stages of labour. I always understood that he recommended it on the authority of the Dublin school. His practice was to follow the child down even in natural labour, and *à fortiori* in every case where the forceps was put on, where craniotomy was resorted to, and where turning was effected. I have always adopted that plan with advantage. It reduces to a minimum the necessary *vis à fronte* traction, and in that way equalises the pressure, shortens the labour, and diminishes the danger. The same practice was adopted in my time at the Queen Adelaide Hospital with regard to the placenta as soon as the child was born, waiting perhaps two or three minutes in order that the patient might get a little recovery of strength. Nothing has astonished me more of late years than to see this plan raised into the position of an invention, with the name of a German professor attached to it. It is necessary to say a word or two upon the statement that it is especially in the second stage of labour that the free use of the forceps as a means of accelerating labour that would otherwise terminate naturally may be justifiable, but we must be careful not to apply this practice to the first stage of labour. We have heard the subject discussed in reference to the first

question, "Does lingering labour occur during first stage of labour?" Dr. Hicks answers emphatically "Yes," and Dr. Hewitt says "Yes"; I have not the smallest doubt of it. As to the statistics and arguments derived from the Rotunda Hospital in the time of Dr. Collins, or those which Dr. Roper adduces, let me ask what is the history of a number of cases of rupture of the uterus in the first stage? I am talking of cases where there is no disproportion, no contraction of the pelvis, no undue size of the child, and in some instances no malposition of the child: the uterus may be distended with fluid, and mischief may arise at that time; but it is far more likely to arise when the liquor amnii has gone off, and when we are getting a little perversion of the natural order of labour in the first stage, and when irregular forms of contraction and trismus are apt to come on. Then you get arrest of labour because the uterus cannot act in its natural way: it compresses the child; it does not drive it on. If these cases are not treated properly great mischief arises; the patient may recover from the labour, but she has afterwards a bad convalescence (perhaps she goes into septicæmia or fever), and she is in danger, and the child is in danger. I will say a word or two as to how to meet those cases. Expectancy is bad if trusted to alone. Expectancy is only letting the uterus drift further and further into this disturbed and difficult action. If you give opium you can give some relief, chloral still more, chloroform still more; but there is a remedy beyond all these, and that is nitrite of amyl. There is nothing that allays uterine or other muscular spasms so well as that; in two or three minutes you may subdue the trismus, relax the uterus, get on the forceps, and deliver the patient. Now, when we are talking about the free use of the forceps, we must bear in mind that almost all the evidence we have heard applies to the low operation, the intra-pelvic operation, except in the case of Dr. Johnston, Dr. Hicks, and a few others, who have had more extended experience. We have heard a Scotch professor telling us of the keynote being struck in Scotland, but we must remember that obstetric experience is a matter of population, and the whole population of Scotland is not equal to that of London. It is not to the land of the mountain and flood that we are to look for opportunities of acquiring experience in midwifery of this difficult kind: it must be in the great centres of population—London, Manchester, Liverpool, Birmingham, Dublin; and it is in those towns that the longer forceps have come into use. If we want to practise the high operation we must have the forceps long enough. The Scotch instrument is not long enough. Here is a specimen of the instrument used by Dr. Ramsbotham. It is something like the instrument of Dr. Simpson, which is a little longer. Dr. Simpson's has a double curve, which is a great improvement; but the double curve does not make the short forceps long. I have used it when I have not had an instrument of my own. It will not do where the head is lying upon or above the brim of the pelvis. It will do for brim operations, but not beyond that. With regard to the argument based on the instrument itself, I will quote what Dr. Simpson says in his notes of his lectures: "Never apply the forceps until the os uteri is fully dilated, and until the head is in the pelvis." There is the practical commentary upon his forceps. He tells you to follow the practice that is within the power of his instrument, and that is very natural. We have an illustration of the same point in his celebrated papers upon turning in contracted pelvis. The reason why he turned was because he had not forceps long enough to get at the head, and he had no resource but to turn. That is why turning is advocated by him in preference to forceps. Here in London, in Dublin, and in the larger towns, if the head is upon the brim of the pelvis and accessible to the long forceps, we prefer dealing with the child's head first instead of turning it. Although I admire his paper upon that subject, and often turn in cases of contracted pelvis, it has been where there is such a degree of contraction that the forceps will not drag the child through. Dr. Lever, who practised in London, amidst a large population, contrived a long forceps for difficult cases. I have here also a specimen of a long forceps contrived by Dr. David Davis, who also worked in London. It is a singular instrument, with one long blade and one short one. His son also, who, I am happy to say, is recovering his health, having similar work to do in London, contrived a beautiful pair of forceps, sixteen inches and a

half long, with parallel shanks. You can use the instrument with both hands, so that you have enormous power, and can regulate your work with the utmost accuracy. In Manchester a similar thing has been done by Dr. Retford. Dr. Roberton has done the same thing, but his instrument is not so good. I began to use short forceps in my early practice, but I soon gave it up, and I contrived the long forceps now used so extensively in Dublin. You can hold it with both hands and distribute the force with accuracy, and it will fetch a head above the pelvis. The high operation, therefore, is an operation of English origin rather than Scotch. Although they have in Scotland a great amount of time to teach, they have not so many cases to practise upon. I will not say anything more about the saving of infant life, because that has been dwelt upon by others. With regard to the evidence of damage in the first stage of labour to the mother and child, we have the statistics of Dr. Churchill, quoted as they have been by Dr. Kidd and others, as proving that no damage comes during the first stage of labour; but they are worth very little. I think that all those who have studied midwifery clinically will agree that there never was so much honest labour misspent as in the compilation of Dr. Churchill's tables, and never so many fallacies accepted as facts. We know very well that mischief may arise in the first stage of labour, and it is our business to anticipate it by the timely and judicious use of forceps. There are a number of cases where delay, occurring in the first stage of labour from premature escape of the liquor amnii, may be followed by this difficulty. (With regard to the forceps of Dr. David Davis, I may say that Dr. Hall Davis himself gave me those instruments a day or two ago.) Coming to the high operation, we are dealing with a matter of great and serious importance, and we are not to indulge so lightly in the use of the forceps as in the case of the head being delayed in the pelvis. There are two classes of cases of arrest of the head in the brim. There is the first class, where the arrest is due to disproportion. Either the head is too large, or the pelvis is too small, or there is malposition. In those cases we do not always know what the cause of arrest is until we have had time to observe and to put the patient under chloroform. Those cases are beyond our present consideration. Putting them aside, I admit that the cases which remain, in which there is no disproportion and no malposition, in which there is arrest of the head above the brim, are not of very frequent occurrence, and that is the only class of cases where we still have it open to us to apply the forceps. Therefore I say again that the last proposition put forward, that the utility, necessity, and the safety of the forceps become less frequent as we ascend above the pelvic brim, is untouched, and it has received confirmation from Dr. Hicks and those who have experience entitling them to speak. With regard to craniotomy I do not think we have evidence enough that the dream, the justifiable and scientific dream, of Dr. Tyler Smith, that craniotomy is on the point of abolition, is about to be realised. I do not think we have got so far as that. I never thought we should; but we have been tending towards it. That is one of the great evidences we have of the progress of scientific midwifery in this country, that we are diminishing craniotomy year by year. There is no possible record of experience that can now be adduced in the practice of the last ten years that could in any way parallel the evidence brought forward as to Dr. Robert Lee's practice. There is nothing to be compared with it, and I say that it is due to the extended use not only of the ordinary forceps, but of the long forceps. In former times, when the head was arrested at the brim of the pelvis, when the long forceps was not used, there was nothing for it but to perforate. Now the long forceps will reach those cases, and thus prevent craniotomy, just as the more frequent use of the forceps saves the child when it is lower down. I think that the alternative of ergot will gradually be exploded. It is not an alternative to the forceps in the cases where it is justifiable to use it. And craniotomy as an alternative will diminish more and more as we acquire more skill in the use of the forceps, as we improve the instrument and give it more power. At the same time it is an instrument liable to abuse; but it is the glory of English midwifery to improve and to carry it up to the highest state of perfection, and the more we do that the more we shall justify this country as the country where the forceps were invented.

TWENTY-NINTH SESSION OF THE GENERAL MEDICAL COUNCIL.

HELD AT THEIR HOUSE, OXFORD-STREET, W.

FIRST DAY—THURSDAY, JULY 17.

THE PRESIDENT having read his opening address, as published in our pages last week,

The report of the Executive Committee was then read. After apportioning the payments made out of the dental registration fund in regard to the fees received under the Dentists Act, and to the work done by the Council in respect thereof, the Executive Committee went on to recommend:—

“(a) That an additional honorarium of fifty guineas be given to the Registrar, on account of extra duties connected with the dental business, to be paid out of the dental registration fund; (b) That, in consideration of the additional duties devolving on the Registrar, in consequence of the passing of the Dentists Act, his salary be £600 a year—whereof, pursuant to the foregoing resolution (a), one-half shall be borne by the General Council, one-fourth by the English Branch Council, and one-fourth by the Dental Fund—the payment of the salary to date from the passing of the Dentists Act.”

On the motion of Dr. ANDREW WOOD, seconded by Dr. AQUILLA SMITH, this report was adopted, and the standing orders of the Council were adjusted in accordance with it.

The following communications from licensing bodies in answer to memorials sent by the Council, in accordance with their resolution of March last, upon the subject of ophthalmic and obstetric studies, were then read:—

(a) *From the University of Dublin.*

School of Physic, Trinity College, Dublin, April 21, 1879.

Sir,—Your circular of March 31 has been laid before the Board of Trinity College, Dublin, and I am directed to inform you that the practice of this University is in conformity to the recommendation as to ophthalmic surgery and midwifery.

I am also to forward you the enclosed copy of the regulations of the School of Physic.

I am, Sir, yours faithfully,

H. W. MACKINTOSH, Medical Registrar.

The Registrar of the Medical Council.

(b) *From the Royal College of Surgeons of Edinburgh.*

May 16, 1879.

Sir,—Your letter of March 31 (No. 268), containing resolutions passed by the General Medical Council, to the effect that the enclosed memorials be submitted to the Royal College of Surgeons of Edinburgh, as one of the licensing bodies, “for observation and report thereon to the Medical Council,” has now been submitted to a meeting of the College held this day, and I am directed in name and by authority of the College to report for the information of the General Medical Council as follows:

In regard to ophthalmology this Royal College has been in no respect remiss in acknowledging its importance as a department of medicine deserving special attention, having for many years past, in the regulations to be observed by candidates for their diploma, “strongly recommended to students to avail themselves of any opportunities which they may possess of attending, in addition to the courses of instruction which are absolutely prescribed, lectures on ophthalmic diseases.” They have at the same time seen that, while ophthalmic medicine and surgery is a most important department—a microcosm within itself of anatomy, physiology, pathology, and practice—it is after all only a department of medicine, and, though a favourite field for ardent and successful specialists, not less a specialism than aural disease, mental disease, cutaneous disease, urinary disease, disease of the rectum and anus, and enthetic affections.

This Royal College recognises frankly how important it would be were all students who come up for examination to be thoroughly competent practitioners in every department of medicine, both general and special. They have, however, in laying down a curriculum for students, required to take into serious consideration not only what it is desirable a practitioner should ultimately know, but also how much instruction can advantageously be communicated to an ordinary intellect within a period of four years, the time allotted for the acquisition of the knowledge of those subjects absolutely enjoined upon the student before he can present himself for his final examination.

The College is impressed with the idea that any compulsory addition to the number of subjects requiring to be attended would only embarrass the observation and reflection of the ordinary student, and render accurate knowledge in any one subject less attainable. It has also appeared to the College that it is an error to regard any student who has obtained his diploma as having finished his medical education. By that time he has only passed the threshold of the profession; he has only entered upon that epoch of his student life when, with awakened attention, sharpened powers of observation, and time for comparison, he may be regarded as best fitted to dedicate himself to the careful study of either all or any of the special subjects to which allusion has been made. It is with a view to this working at special departments of pathology and practice that so many of our best students seek other schools, notably at the great seats of learning upon the Continent, where special departments, or even hospitals, afford opportunities not to be met with nearer home. It is at this period of study too that, relieved from the slavery of text-books, and the anxious anticipation of coming examinations, the young practitioner can devote himself advantageously to the study of monographs, and clear his ideas from the confusion created by the discrepancies of various teachers. The instruction thus spontaneously sought and attained, rather by private study than as the dogma of a teacher, must be regarded as one of the best mental exercises which can be afforded on the threshold of professional life.

To the College it has appeared in the past that these special studies should constitute the attractions of the post-examination period of professional life, and that this is the time when, with most advantage, the student may addit himself to their acquirement, rather than during his two last years of studentage, already well occupied by class attendances and general hospital work.

The College would also direct attention to the fact that there is no qualifying hospital in the kingdom which has not connected with it a special ophthalmic department, with appliances for the demonstration of ophthalmic diseases and treatment, open to all hospital students, and equipped with a surgical staff well fitted to render the visit and verbal explanations at the bedside equally valuable as that conveyed in the ordinary surgical wards. They would also point to the fact that ophthalmic surgery has constituted a usual part of every examination, and that there is upon the staff of their examining board no want of oculists well fitted to secure that in the conduct of the examinations justice may be done to the ophthalmic department.

This College, while it would desire to render the practical observation of every specialism as free as may be possible to all students, would shrink from laying any further burden upon the shoulders of young aspirants for a diploma in the form of further class attendance or in the creation of a special table of examiners to deal whether with ophthalmology exclusively or in combination with any of the analogous specialities of diseases. All they can at present see their way to recommend, while the curriculum of study is limited to four years, is that the certificate for hospital attendance may be signed equally by a surgeon of the ophthalmic department as by any of the ordinary surgeons, and believe that in this way they may indicate the importance they attach to regular attendance upon the ophthalmic wards is not less than that with which they regard attendance upon ordinary surgical practice, of which, however, they would desire to have it regarded as constituting an essential part.

Upon the memorial of the Obstetrical Society, urging an extension of the period allotted to the study of midwifery and diseases of women to a six months' course and extension of the instruction afforded in practical midwifery,—The Royal College of Surgeons would remark that, as the memorialists appear quite satisfied with the arrangements existing in Scotland with regard to the teaching of obstetric medicine, it may seem at first sight unnecessary to make any special remark upon the complaint of the memorial, but as the statement of the memorialists scarcely seems to accord with facts as coming within the knowledge of the College, it may be well to suggest that their meaning requires explanation.

The memorialists state—“In the schools of Scotland the recommendation of the Committee is in force, and the subject is taught during a winter session.” This is followed by the request that the General Medical Council approve of no scheme which does not make provision for a six months' course of study of obstetric medicine. In this all the force of the statement turns upon the signification of a three and a six months' course. For, strictly speaking, it is in the universities of Scotland alone that a winter six months' course, consisting of at least 100 lectures, is enjoined. In the requirements of this College of Surgeons only three months is demanded, but then it has to be explained that this three months' course consists of sixty lectures at least, or of daily lectures on five days of each week during the summer session.

If the Royal College of Surgeons of Edinburgh is rightly informed, in London and in some other schools the three months' course complained of by the Obstetric Society consists of only two systematic lectures a week, and a winter course likewise of only two lectures a week. This being so, it is obvious that a six months' course in London is not equivalent to a three months' course of daily lectures in Scotland, and that a three months' course in London of two lectures a week would consist of only twenty-five lectures.

The Royal College of Surgeons of Edinburgh is of opinion, that while a single course of only twenty-five lectures upon obstetric medicine certainly does not afford sufficient time for dealing satisfactorily with so important a practical subject, a six months' course of daily lectures devoted to obstetrics alone is an undue extension of the subject beyond the limits absolutely requisite as compared with other practical studies prescribed.

The College feels that the extension of instruction in practical midwifery beyond what is enjoined is surrounded with difficulties. The College has not seen its way to demand more than a certificate of having attended six cases of labour under the superintendence of a practitioner, who signs the certificate, and who must be a registered medical practitioner. It must be borne in mind, in considering this matter, that the proportion of medical students to the population and births renders it a difficult matter in some instances to afford opportunities of a more extended nature than that demanded by the College. In Edinburgh, for instance, there is a medical school consisting of considerably more than 1000 students, while the whole births in Edinburgh, in every rank of life, amounted in 1878 to only 7258, thus affording, in the class of patients upon whom students can well attend to obtain a knowledge of obstetric practice, a proportion certainly less than six cases to each.

Were those 1000 students confined to the limits of Edinburgh alone for the field of observation from which their six cases apiece were derived, and were they all required to obtain their cases within one year, they could not obtain such a certificate.

That many students obtain their certificates from other parts of the country is undoubted, else several students would need to be present at each delivery—a condition of things which the College cannot regard without some repugnance; as, however well managed, even when under the supervision of an experienced practitioner, a number of students in the lying-in room must be painful to delicacy of feeling on the part of the patient; and in the case of students engaged in the dissecting room, pathological department, or in surgical dressing, increase greatly the risk of communicating septic mischiefs to the parturient patient.

The College is therefore driven to the conclusion that the attendance upon obstetric lectures and practice which is at present prescribed by them in their regulations for candidates for their diploma, and as explained in the foregoing observations, is sufficient to secure that amount of knowledge which can alone be expected of an average student at the completion of a period of a four years' study, and that if more is to be required it can only be efficiently afforded by an extension of the period of study. Any such extension they would certainly deprecate for an examination which is intended only to secure an average minimum standard of attainment in those just entering upon the medical profession.

I am, sir, your most obedient servant,

PATRICK HERON WATSON, Praeses.

W. J. C. Miller, Esq., Registrar of the Medical Council Office.

(γ) *From the University of Edinburgh.*

May 22, 1879.

Sir,—The Faculty of Medicine of the University of Edinburgh have had under consideration the two memorials submitted to the University by the General Medical Council, and have to offer the following observations:—

As regards (a) the Memorial from Ophthalmic Surgeons—

The Faculty, whilst fully recognising the importance of a knowledge of ophthalmic diseases, can only regard it as a part of surgery, and cannot recommend its compulsory study as a *speciality* during the student's four years' curriculum, or *special* examination therein, on any other grounds than they could recommend the same course to be adopted in regard to diseases of the air-passages, urinary organs, or rectum, etc. The Faculty would strongly urge all students to avail themselves of the opportunities of studying ophthalmic diseases and their treatment which exist in all great hospitals; and would point out that at present these diseases, in common with other departments of surgery, form a part of the examinations conducted in this University.

As regards (b) the Memorial from the Obstetrical Society—

The Faculty heartily endorse the very reasonable request contained in the memorial.

They have to report that the recommendations of the memorialists are in full force in this university. For, (1) the subject of midwifery and the diseases of women and children has been treated here for about a century in a compulsory winter course of not less than one hundred lectures; and, (2) voluntary summer classes for practical instruction in obstetrical and gynaecological operations have been in existence for eight years, and have been attended by large numbers of students.

I am, Sir, your obedient servant, W. J. C. MILLER, Esq., Registrar of the General Medical Council.
W. M. TURNER, Dean of the Faculty of Medicine.

(δ) *From the Royal College of Physicians, Edinburgh.*

Observations by the Royal College of Physicians of Edinburgh upon Memorials having reference to the teaching of Ophthalmology, and Midwifery and Diseases of Women at the Medical Schools.

The Royal College of Physicians of Edinburgh having had under their consideration a Memorial from Ophthalmic Surgeons upon the teaching of ophthalmology, and a Memorial from the Obstetrical Society of London upon the teaching of midwifery and the diseases of women, forwarded to them by the Registrar to the General Medical Council, with letter of date March 31, 1879, "for observation and report thereon to the General Medical Council," have the honour to report as follows:—

I. With regard the Memorial from Ophthalmic Surgeons—

The College have to report that at present they are not prepared to agree with the memorialists as to the advisability of making it compulsory upon all medical students to attend a three months' course of practical ophthalmology, either at the special eye department of a general hospital or at a special ophthalmic hospital, as well as a course of twenty lectures on ophthalmology at the least; nor are they prepared to press on the General Medical Council the importance of making ophthalmology "a distinct subject of examination at the pass examination." The College fully recognise the importance of ophthalmology in its relation to medicine as well as to surgery, and would wish that every encouragement should be given to students of medicine to attend a course of practical instruction in that subject. They feel, however, that there are other subjects not at present compulsory, such as medical psychology, diseases of children, diseases of the ear, of the throat, of the skin, etc., some of which are not less important than ophthalmology in their relations to medical education; and they are of opinion that, if ophthalmology should be rendered compulsory, it would be inconsistent not to include some of those others in the same category. Taking into account the extent of the medical curriculum, they think that, whilst every encouragement should be given to voluntary attendance upon these important extra classes, it would not be expedient at present to render attendance upon these classes, or special examination in these subjects, compulsory.

II. With regard to the Memorial from the Obstetrical Society—

The College is of opinion that to teach efficiently the subjects of midwifery and the diseases of women, a more extended course than one of three months is required. They think that either attendance upon a course of one hundred lectures on midwifery and the diseases of women should be required, or, as an equivalent, attendance upon two separate courses, one of midwifery, and the other of diseases of women, including together one hundred lectures. They therefore join with the memorialists in respectfully recommending the General Medical Council to approve of no new scheme of medical education which does not make provision for such an extended study of the important subject of obstetric medicine.

In name and by authority of the College,

A. PEDDIE, President.

Royal College of Physicians of Edinburgh, June 4, 1879.

(ε) *From the Royal College of Surgeons of England.*

June 13, 1879.

Sir,—In reference to your letter of March 31 last, transmitting two memorials, addressed to the General Medical Council, the one from ophthalmic surgeons, and the other from the Obstetrical Society, to be submitted to the Council of this College "for observation and report thereon to the Medical Council," I am desirous to acquaint you that the Council, having referred the memorials to the Court of Examiners to report thereon, and having considered the report of the Court, adopted, on the 8th ult., the following resolutions, and confirmed the same on the 12th inst., viz.:—

1. "That, in reference to the memorial from ophthalmic surgeons, addressed to the General Medical Council, and in pursuance of the opinion expressed by the Court of Examiners, Mr. Miller be informed, in reply to his letter of March 31 last, that in the College examinations, whether written or *vis à voce*, ophthalmic surgery is, in proportion to other subjects, adequately represented; and that the Council does not consider it desirable that any addition should be made to the extensive curricula of professional education for the diplomas of Member and Fellow of the College."

2. "That, as regards the memorial from the Obstetrical Society addressed to the General Medical Council, this Council agrees in the opinion of the Court of Examiners that it is not expedient that, at present, any addition should be made to the curricula of professional education now in force for the membership and fellowship of the College; and that an answer to that effect be sent to Mr. Miller, Registrar of the General Medical Council, in reply to his letter of March 31 last."

I am, Sir, your obedient servant,

EDWARD TRIMMER, Secretary.
W. J. C. MILLER, Esq., Registrar of the General Medical Council.

(ζ) *From the Apothecaries' Hall of Ireland.*

Dublin, June 13, 1879.

Sir,—In reference to your letter of March 31, enclosing copies of memorials, one on the subject of midwifery and the other on ophthalmic diseases, I have the honour to inform you that they have been submitted to a meeting of the Court of the Apothecaries' Hall of Ireland held this day, and that I am instructed to state for the information of the General Medical Council, that the practice of this Hall as to midwifery is in accord with the recommendation of the memorialists; but that the Court cannot at present advise that the existing curriculum of study should include a special and separate course on ophthalmic diseases.

I remain, Sir, your very obedient servant,

C. H. LEET, Secretary.

The Registrar of the General Medical Council.

(η) *From the Faculty of Physicians and Surgeons of Glasgow.*

Glasgow, June 19, 1879.

The Faculty have considered two memorials transmitted by the Registrar of the General Medical Council on the 31st day of March last; one being a memorial from ophthalmic surgeons suggesting the advisability of making a course of practical ophthalmology obligatory on medical students, and of making ophthalmology a distinct subject of examination; and the other a memorial from the Obstetrical Society of London, praying the General Medical Council to approve of no scheme of medical education which does not make provision for a six months' course of obstetric medicine.

In reference to these memorials, the Faculty fully recognise that it is a matter of much importance that medical students should possess a knowledge of diseases of the eye, and they have done what they could, short of absolute compulsion, to encourage students to attend a course of instruction on the subject. They also believe that the importance to the student of a sound knowledge of midwifery can scarcely be over-estimated. In Scotland the minimum course of lectures on this subject embraces not less than fifty lectures; and they are not aware that either teachers or examiners in Scotland have complained of the inadequacy of such a course. On the whole, the Faculty think that in a curriculum limited, as at present, to four years, it would be unwise to increase the already large extent of obligatory study, in the way of either adding thereto a new subject, or augmenting the duration of a course at present imperative.

ALEXANDER DUNCAN, Secretary.

(θ) *From the Royal College of Surgeons in Ireland.*

Dublin, July 3, 1879.

Sir,—I am directed by the President and Council of this College to acknowledge the receipt of your letter bearing date March 31, 1879, in which were enclosed two memorials, one from the Obstetrical Society of London, bearing date March 18, 1879, and addressed to the General Medical Council, the other a memorial from certain ophthalmic surgeons, also addressed to the General Medical Council, but seemingly undated. In your letter a request was also contained that this Council should forward its "observations and report" upon these memorials to the General Medical Council.

With reference to the first of these memorials, I have it in direction to inform you that this Council have long been impressed with the very great importance of a sound knowledge of obstetric medicine on the part of the general practitioner, and that they were gratified on reading the expression of opinion so far as Ireland is concerned, of such a distinguished body as the Obstetrical Society of London.

With reference to the second memorial, that from the ophthalmic surgeons, I have to inform you that the question therein referred to is at present under the anxious consideration of this Council.

I have the honour to be, Sir, your obedient servant,

W. J. C. MILLER, Esq. J. STANNUS HUGHES, Secretary of Council.

(ι) *From the King and Queen's College of Physicians in Ireland.*

Dublin, July 10, 1879.

Sir,—By direction of the President and Fellows of the King and Queen's College of Physicians in Ireland, I have to inform you that the circular issued by you March 31, 1879, and transmitting two memorials—one from ophthalmic surgeons, and the other from the Obstetrical Society—"for observation and report thereon to the Medical Council," has been under the consideration of this College. The College referred the subject of the memorials to a committee.

This committee in due time reported to the College, and at the meeting of the College held in June the following resolution was adopted:—

"That in the opinion of the College the prayer and recommendations contained in the memorials to the General Medical Council from (1) the Ophthalmic Surgeons, and (2) the Obstetrical Society of London are just and proper, and the College consider it would be desirable that the same should be adopted and carried out."

I have the honour to be, Sir, your obedient servant,

J. MAGEE FINNY, M.D., Registrar.

To the Registrar of the General Medical Council.

Dr. HUMPHRY, in moving "That the answers from the licensing bodies in regard to ophthalmology and midwifery be referred to a committee, to report thereon to the Council at its next session," said that it was due to those bodies who had returned these elaborate answers to the Council that the matter should be referred to the consideration of a committee previous to its discussion before the General Council. (Applause.)

Dr. PITMAN wished to add to this resolution, that any other answers which might be received pending the consideration of those already read by the Committee should be referred to them. He mentioned this because the College of Physicians had not yet met to consider the subject, and no doubt their answer and the answer of other bodies might be received.

The motion, having been seconded by Mr. TEALE, was unanimously adopted.

Mr. SIMON then moved—"That the subject of elementary mechanics of solids and fluids—meaning thereby mechanics hydrostatics, pneumatics, and hydraulics, be no longer recommended by the Council as an optional subject of pre-

liminary education, but be recommended as one of the subjects 'without a knowledge of which no candidate should be allowed to obtain a qualification entitling him to be registered'; and that it be referred to the Executive Committee to amend to this effect Sub-section 6 of Section 4, and Sub-section 1 of Section 23, of the standing Recommendations of the General Medical Council on Education and Examination." He preferred bringing this question at once before the Council rather than referring it to a committee, because, by the time the report of that committee could be returned, the examination rules which would emanate from the Conjoint Board might have to be brought before the General Medical Council as the first business of its next session, and then it would be difficult to raise this question, because the framers of the examination rules could contend that they had followed the recommendation of the Council. He believed that these subjects of elementary mechanics of solids and fluids had been omitted by a mere slip from the compulsory subjects; because he felt sure that any teacher of anatomy was aware how serious the inconvenience was when you had to deal with students who were ignorant of the elements of mechanics—how difficult to make them understand the movements of the muscles and bones of the human body. Or if you took the subject of pneumatics, it was impossible for a teacher of pathology to make students understand certain problems, if they were ignorant of the elements of pneumatics and hydrostatics. Every poor-law officer in England was liable to be appointed officer of health of the district, and in that capacity would be expected, if not to advise upon, to at least be familiar with, questions with regard to the ventilation of houses, and preventing the accumulation of sewer gas, and matters of that sort. In short, without an elementary knowledge of mechanics, a man was not fit to enter upon the duties of the profession, nor was he able even to learn the very beginnings of it in anatomy, physiology, and hygienic medicine. The short result of his motion would be to make these subjects compulsory instead of optional. Chemistry and chemical physics were already compulsory. The Council admitted no one into the profession who was ignorant of the elements of heat, light, and electricity; and yet, under the present examination rules, it was not necessary for a man to have even an elementary knowledge of mechanics. It was to remedy this oversight (for it was nothing else) that he proposed the adoption of the resolution.

Dr. FERGUS seconded the motion.

Professor TURNER, in supporting it, said that every teacher of anatomy and physiology had felt the difficulties he had to contend with in propounding certain important problems, involving a knowledge of elementary mechanics, to students who had never entered upon these subjects. The only question that could arise upon the motion was with regard to the *period* in the student's training when the examination should be held. He advocated its forming part of the preliminary education, so as to leave the optional subjects reduced to three, viz., Greek, French, and German.

The Rev. Dr. HAUGHTON, while quite agreeing that these subjects should be made compulsory, and not optional, said it was not fair to the Council that an important general question of this sort should be solved by a side issue; because the question really raised by Mr. Simon's proposal amounted to a promotion of elementary mechanics over the other three optional subjects of Greek, French, and German. Now, although he would vote for making it compulsory, he considered it very unimportant as compared with Greek. Moreover, it would be easier to induce the elementary schools of the country to add Greek to their present course than mechanics of solids and fluids. In fact, these schools were not capable of teaching mechanics in such a way as to be of any real use from Mr. Simon's point of view. Book learning upon the subject was useless, if you wanted a student to understand a lecturer's meaning upon the mechanical action of the muscles or arteries of the human body, or the propulsive force of the heart, or the other innumerable mechanical problems that arose in hospital teaching. It was not enough for a student to have learnt from books about the three orders of levers, or about pressure varying with temperature and heat; he must see it all done in the laboratory. He must see the pendulum swinging; he must learn from acting models the laws of gravity—by sight, and not from books. Therefore, even if his preference for Greek was not well founded, this objection to Mr. Simon's motion

was, to his mind, fatal. But the Council ought not to cast such a slur upon Greek as to promote mechanics above it as a compulsory subject. (Applause.) From his experience of boys he had found it the easiest thing in the world, after they had learnt to read and write easy Latin prose, to teach them easy Greek prose. But the study of physics as taught in a school would be most repulsive to boys—Euclid over again—(hear),—and, moreover, as he had shown, would be practically useless. If, however, this resolution were adopted by the Council, he would entreat them to strike out the word "hydraulics," considering that this was a subject about which even the highest mathematical minds of the country were fairly puzzled, and at the present time, in combination with the *élite* of the engineering world, had not succeeded in settling even the rudiments of it. It was preposterous to suppose that the subject of hydraulics could be taught in elementary schools which had not the apparatus necessary for even teaching elementary mechanics. You might as well word the resolution so as to include "the elementary mechanics of solids and fluids, meaning thereby the differential equation of tidal motion." (Laughter and applause.) In these circumstances he moved, as an amendment, that it should be referred to a committee to consider whether both Greek and elementary mechanics ought to be made compulsory, and at what period in the course the study should be undertaken; and further, that the word "hydraulics" should be expunged from the resolution altogether.

Mr. MACNAMARA seconded the motion, and alluded to the fact that Dr. Aquilla Smith intended to bring the whole question of preliminary education before the Council, when this, amongst other numerous points, might well be taken into consideration. Considering the number of bodies whose testimonials were accepted, if the Council were to require these mechanical subjects, about which many of the bodies knew nothing at all, and had no means of teaching them, the recommendation of the Council would become nothing better than a sham. (Applause.)

Dr. AQUILLA SMITH explained that it had been his intention to bring the whole subject of preliminary education before the Council, but, finding that he was in a minority amongst the Executive Committee, he had abstained from doing so. However, he was still unconvinced, and was quite willing to bring forward the whole subject, because he was strongly impressed with the necessity of so doing. (Hear.)

Sir WILLIAM GULL: I do trust the Council will not send us to a committee upon this question. So long ago as 1867 we sat for a week and discussed it, and now we are here to-day asked to go over the same ground again, because Professor Haughton, who probably knows nothing about the practice of physic, but probably knows a great deal about Greek—

Professor HAUGHTON: I submit it is not in order to say I know nothing about the practice of physic. (Laughter.) I can assure you I have seen a great deal of it.

Sir WILLIAM GULL: Then I will say he knows more than I do. Years ago it was agreed that hydrostatics should form part of the preliminary education, and, as Mr. Simon says, the omission of these subjects must have been a mere slip. Mr. Simon had given good reasons why these matters should be made part of the education of a student. A surgeon could give a hundred reasons. Every movement of the human body must have relation to the earth it stood upon, and it seemed almost an absurdity that Mr. Simon's suggestion was not at once adopted. The proposition of Professor Haughton was to have a committee to consider whether a man should know these subjects, or whether it was more important that he should know Greek; and it is suggested that by Mr. Simon's proposal we are unduly promoting mechanics over Greek. Let that go forth to the world—that a member of this Council stands up and positively cautions us not to unduly promote physical knowledge over Greek in the education of medical students; and if it is not ridiculous enough for *Punch*—(laughter)—I should like to know what is. I should like to move for a special committee of this Council to inform us what use Greek is to the general practitioner of medicine.

Dr. AQUILLA SMITH: With Sir William Gull as chairman. (Laughter.)

Sir WILLIAM GULL: Yes; because I know nothing about it. (Renewed laughter.) But I really do hope that we shall not be such fools as to accede to a committee upon this subject. (Cheers.)

Dr. ROLLESTON: The practical issue before us is whether we shall put these particular subjects into the schools *de rigueur* or not—I do not mean the medical schools, but those which give preliminary education. (Hear, hear.) I should be entirely with Mr. Simon in insisting that these subjects should be compulsory in professional examinations; but from what I know about schools, I agree with Professor Haughton that they are, as a rule, unqualified for teaching mechanics. *Per contra*, I would make chemistry and chemical physics compulsory in schools, because I regard chemistry as the alphabet of natural science, and it is a subject that can be well taught in schools with an inexpensive apparatus. With regard to French, Greek, and German, I would give the preference to either Greek or German over French, because the latter is a language easily mastered by anybody who knows Latin (and I am glad to find that there is no talk yet in this Council of exiling Latin). (Applause.) There are a great many schools in the country now which do not teach Greek at all, because it is disliked by parents and guardians—(laughter)—in this Philistine country; not, I am glad to believe, in Ireland. (Hear.) I agree with Professor Haughton that the teaching of mechanics ought to be reserved for a later stage in the student's career, when it can be undertaken by thoroughly skilled teachers, apt to apply it to professional studies; otherwise it might be made over-strict and exacting, and would certainly have the effect of stopping recruiting for the profession if it were made a reality at the very outset of the student's career. (Applause.)

Professor TURNER, in supporting Mr. Simon's motion, said, in reference to Dr. Haughton's remarks, that Greek was of purely literary interest in connexion with the profession, whereas mechanics had a living and practical bearing upon it.

Dr. HUMPHREY pointed out that that there was some confusion in the way in which this question was brought before the Council. It had a double aspect: first, whether this study of mechanics should be compulsory or not, and secondly, whether it should be compulsory as a part of preliminary education. The two questions were entirely independent of each other, and ought to be discussed on different bases. With regard to the first, he should probably vote for the amendment. With regard to the second, he should certainly vote with Mr. Simon. (Hear.)

Mr. Simon having expressed his readiness to alter the amendment so as to make optional the time at which this examination should be passed, the debate was continued by Dr. Aquilla Smith, Professor Turner (who said that at Edinburgh the subject was already exacted), Dr. Fergus, Dr. Pitman, Mr. Teale, and Dr. Storrar. In the result, the President having briefly stated the position of the debate, the amendment of Dr. Haughton, and likewise two amendments proposed by Dr. Rolleston and seconded by Dr. Hudson (proposing that the subject of elementary mechanics should be made compulsory in the first division of the professional examination, and that the subject of chemistry and chemical physics should be made compulsory in the preliminary examination), were withdrawn, it being considered that Dr. Simon's resolution, as altered so as to leave the period of these studies optional, removed all objections.

Dr. STORRAR then moved—"That the consideration of the answers from medical licensing bodies to a letter sent to them by the Executive Committee in regard to the preliminary education and examination of medical students be postponed till the next meeting of the Council, with the view of the whole question of preliminary education being then considered."

Dr. ANDREW WOOD seconded the motion. As the Council was, at Dr. Storrar's instance, going into the whole subject of preliminary examination next session, it would be premature to enter into any discussion upon it now.

Sir WILLIAM GULL moved, as an amendment—"That the answers from the medical licensing bodies to the letter sent to them by the Executive Committee, with regard to the preliminary examination of medical students, be referred to the branch councils of each division of the kingdom for report to the Council at its next meeting, in order to insure a full consideration of the subject at that time."

Dr. Rolleston having seconded the motion, after some discussion Dr. Storrar withdrew his motion. The President put Sir William Gull's amendment as a substantive motion, and it was carried unanimously.

On the motion of Dr. ANDREW WOOD, seconded by Sir WILLIAM GULL, some communications from the Colonial and Privy Council Offices, with legal opinions thereon by Messrs. Jenkyns and Ouvry, and application from a Canadian practitioner in regard to registration in Canada, referred to the General Council by the Executive Committee, were received and entered on the Minutes, their present consideration being thought undesirable.

The following communication from the Branch Council for Scotland was read before the General Council at its meeting on March 26, 1879:—"The following letter of application from Mr. William Bunbury Eames was ordered to be printed in the Minutes; and the consideration was referred, without comment, to the General Medical Council."

Glasgow Royal Infirmary, February 19, 1879.

Dear Sir,—I beg to request that you will be good enough to lay before the Medical Council the following:—

According to the rules of the College of Surgeons, Ireland, a student gets credit for all professional studies prior to his passing an Arts or preliminary examination, and the consequence of this is that the Irish students put off their registration, all that is required by the R.C.S.I. being that they should, upon presenting themselves for examination, have their necessary professional certificates, with certificate of having passed the preliminary at some date prior to going in for examination. I have been to see Dr. Bell upon this subject, and being in my fourth year of professional studies, and having all the necessary certificates required by the Ed. Board, with the exception of the full period of registration.

I beg further to request that the Council will take into their kind consideration the rules of the Irish College as regards the period of registration, and grant me permission to present myself for examination (final) in April next, having passed the first half of R.C.S.I. last July. An early reply will much oblige, as the examination for letters testimonial at R.C.S.I. comes off about the same time in April, of which I must avail myself in the event of being refused permission to present myself for the Ed. Examination.

Yours faithfully,

WILLIAM BUNBURY EAMES, House-Surgeon G.R.I.

Thereon it was moved by Dr. Andrew Wood, seconded by Mr. Macnamara, and agreed to—"That the Council send the foregoing communication to the Royal College of Surgeons in Ireland, for the consideration of that College, calling attention to the following recommendation by the General Council in regard to the registration of medical students (Minutes, vol. xiv., page 177, recommendation 14):—The several Branch Councils shall have power to admit special exceptions to the foregoing regulations as to registration, for reasons which shall appear to them satisfactory."

Communication from the Royal College of Surgeons in Ireland, in answer to a letter sent pursuant to the foregoing resolution:—

Royal College of Surgeons in Ireland, Dublin, April, 1879.

Gentlemen,—In reply to your communication of the 29th ultimo, the receipt of which I have already acknowledged, I am directed to inform you that the Council of the Royal College of Surgeons in Ireland have taken it into their serious consideration, and cannot agree to the recommendation of the General Medical Council to the effect that they should refer to the Branch Council for Ireland the decision as to the exceptions to be permitted in the case of students who may produce certificates of professional subjects antecedent to that of preliminary education.

Since the foundation of this College, evidence of having passed a preliminary examination has been a *sine qua non* to enable candidates to present themselves for any of our professional examinations; and the vast majority of our students, as a matter of fact, do pass such examinations previous to commencing their professional studies. From time to time, however, exceptional cases crop up, and upon these cases this Council cannot consent to resign into other hands than their own the right of adjudication.

I have the honour to be, Gentlemen,

Your obedient servant,

J. STANNUS HUGHES, Secretary of the Council.

To the President and Council of the General Medical Council.

Pursuant to a resolution thereon passed by the Executive Committee at its meeting on May 23, 1879, a copy of this letter was sent by the Registrar to the Branch Council for Ireland, together with a copy of the letter from Mr. Eames (Minutes, vol. xvi., page 141), and the Branch Council was requested to favour the Executive Committee with such observations thereon as they may think fit, in order that they may be submitted to the General Medical Council. In answer to this letter, the Branch Council for Ireland sent, under date June 17, 1879, the following resolution:—"The Branch Council for Ireland having before them the letter of Dr. James Stannus Hughes, Secretary of the Council of the Royal College of Surgeons in Ireland, of April, 1879, in which he informs the President and members of the General Medical Council that the Council of the Royal College of Surgeons in Ireland cannot agree on the recommendation of the General Medical Council to refer to the Branch Council for Ireland, or to resign into other hands than their own, their right of adjudication upon cases of students who may commence their professional studies antecedent to having passed their preliminary examination; and having also before them the resolution of the Executive Committee

transmitting a copy of Dr. Hughes' letter, with a request that they would favour the Executive Committee with such observations thereon as the Branch Medical Council for Ireland should think fit; it was resolved—'That the Branch Council for Ireland desire to observe that the question raised lies between the Council of the Royal College of Surgeons in Ireland and the General Medical Council itself, and therefore decline to make any further observations thereon.'"

Dr. ANDREW WOOD moved, and Mr. TEALE seconded, that the above correspondence should be entered on the Minutes.

Dr. ANDREW WOOD thought the representative of the Royal College of Surgeons in Ireland should state whether the statements in Mr. Eames' letter were correct.

Mr. MACNAMARA said the information Dr. Andrew Wood required was contained in the answer of the Royal College of Surgeons in Ireland to the communication which was made to them.

Sir WILLIAM GULL was surprised at the conduct of the Irish College of Surgeons. They said a vast majority of their students passed examinations in preliminary education; but to the Medical Council that could have no meaning. The Council were bound by Act of Parliament to see that every person entering the profession had undergone a proper course of study, so as to insure their possession of the requisite knowledge and skill, and one of the tests was that they should pass a preliminary examination. The College of Surgeons say that in the vast majority of cases their students do pass it, but in certain cases they do not.

Sir DOMINIC CORRIGAN: They say that the passing of the preliminary examination is a *sine quâ non*.

Sir WILLIAM GULL: Yes, but then they say that the vast majority do pass such examination, although in exceptional cases some do not. They do not say what sort of cases the exceptional cases are, or that the students in those cases pass any preliminary examination.

Mr. MACNAMARA said no student was allowed to present himself for any professional examination at the College he represented until he produced evidence of having passed a preliminary examination. The Royal College of Surgeons in Ireland was not prepared to surrender to the Branch Council any of the rights or privileges which had been conferred upon it by its ancient charter. They thought themselves competent to decide these questions, and, under existing circumstances, were prepared to retain that right. If the motion which was coming on for consideration, that under certain conditions the branch Councils should supervise and superintend professional examinations, were carried, the College of Surgeons in Ireland would be in accord with the Council, because the Branch Council for Ireland would have charge of the whole of these exceptional cases, and everything that the Council required would be satisfactorily attained. Under no circumstances was a candidate allowed to present himself for any professional examination at the Royal College of Surgeons, Ireland, until he had gone through a *bonâ fide* preliminary examination conducted by qualified examiners.

Dr. FERGUS thought the question was whether any Royal Charter, at whatever time granted, could override the Act of 1858. The branch Councils had power to make special recommendations, and the qualifying bodies were recommended not to admit any candidate to the profession who had not undergone a course of forty-five months' study. Were the College of Surgeons in Ireland acting up to that?

Mr. MACNAMARA: There is nothing in the Act of 1858 which gives power to the Council to override the rights conferred by our charter. You have only a power of recommendation: we respectfully differ from your recommendations, and are not prepared to carry them out. If you consider we are not educating up to the proper level you have the power under the Act to represent the matter to the Privy Council, who will say whether we ought to be bound by a recommendation of this Council or not. As to registering medical students in Ireland, all we require is that a man shall produce proof of having been engaged four years in professional study, and of having been engaged in hospital practice three years.

Mr. SIMON said if it were convenient to discuss the matter on the present motion before the Council he would say what he had said a short time previously before the Select Committee of the House of Commons, sitting on the new Medical Act—viz., that he had perfect confidence that whatever the College of Surgeons, Ireland, did in the matter was done in

perfect good faith, although he could not help thinking that they were very seriously in fault. Mr. Macnamara said quite rightly that the College of Surgeons had its rights in the matter, and that the Medical Council had only power to make recommendations, but those recommendations meant that certain conditions must be fulfilled in order to constitute a proper course of study and examination. (Hear, hear.) It was quite open to anybody to move to amend the recommendations, but while they stood it was the business of the Council to see that they were followed. If every one of the bodies represented on the Council were to assume the rights which the College of Surgeons had done, the business of the Council could not go on. The attendance of the representatives of the various bodies at the Council was a tacit admission that they would be bound by its recommendations. He hoped the College of Surgeons would retreat from the position it had taken up.

Rev. Dr. HAUGHTON thought the College of Surgeons had placed itself in a wrong position, although the offence was not so serious as at first sight it appeared, because there could be no doubt whatever that the licentiates of the Royal College of Surgeons, Ireland, received forty-five months' *bonâ fide* medical education. The question was as to the technical date of registering the commencement of professional study.

Mr. MACNAMARA said at the last session a recommendation was passed with regard to dental diplomas. The College of Surgeons took exception to that recommendation in accordance with the right which he claimed for them, and he had been informed by the President that their determination not to accept the recommendation would be accepted by the Council. They acted in the *bonâ fide* belief that they were doing the best for their students; and at the same time that they were most anxious to carry out the recommendations of the Council which seemed based on prudence, they asserted their right to use their own judgment as to those recommendations of which they did not approve.

Sir JAMES PAGET said that the present discussion ought to make the Council very careful not to issue recommendations on trivial matters. It should not issue recommendations as to whether there should be one course of lectures or two, or whether the examination should take place at this or that place, but it should confine itself to those subjects which were so important that, having once declared its views upon them, it would be justified in appealing to the Privy Council in cases where its recommendations were rejected. Had the members of the Council carefully considered what an appeal to the Privy Council on any question of this kind really meant, and the conflict by which it would be followed?

Sir WILLIAM GULL said one of the recommendations of the General Medical Council was that no person should be allowed to be registered as a medical student unless he should have previously passed a preliminary examination in medical education as thereafter provided. The College of Surgeons, it was quite clear, had not carried out that recommendation, and he would therefore move—"That the Secretary of the Council of the Royal College of Surgeons be informed, for the information of his college, that in the opinion of this Council the continued non-compliance with the recommendation of this Council in respect of the preliminary examination prior to registration is much to be regretted, and that this Council trust that the Council of the Royal College of Surgeons in Ireland will reconsider their action in the matter in question."

Mr. SIMON, in seconding the resolution, said he entirely agreed with Sir James Paget as to the unadvisability of minute recommendations. Probably no member of the profession had endeavoured more than he (Mr. Simon) had to reduce to a minimum the quantity of regulations and recommendations issued by the Council. They were discussing a vital point. They were all agreed that there must be a certain period of time occupied in medical education, and after a great deal of consideration by the ablest men in the profession in days gone by, a minimum time was fixed within which it was considered that a man could acquire his professional knowledge, and no portion of that time, it was agreed, should be devoted to preliminary studies. He thought the Council could not reasonably allow any individual College to exercise any capricious judgment in such a vital matter, and therefore he earnestly hoped that the College of Surgeons in Ireland would reconsider its decision.

Sir DOMINIC CORRIGAN thought, with the Royal College of Surgeons, Ireland, the University of Dublin should be included in the motion. He was not surprised at Dr. Haughton endeavouring to screen the College of Surgeons, for "a fellow feeling makes us wondrous kind." The charge against the College of Surgeons was that its students, after having gone through a certain amount of professional study, underwent a preliminary examination; but what were they to think of a college which insisted on the payment of a fee of 5s., and asked for no preliminary examination whatever? Was it fair to pour out their vials of wrath on one unfortunate college and let the other go free?

Dr. HAUGHTON said Sir Dominic Corrigan's statement would have the effect of misleading the Council. In the Act of 1800, governing Trinity College, Dublin, there was a provision made by which students might enter and obtain the benefits of medical education without matriculating in arts. There was no examination for that matriculation, but there was a payment of a 5s. fee. He (Dr. Haughton) could say, however, from personal knowledge, that since the recommendation of the Council not one single student ever matriculated in medicine in the University of Dublin without having passed the preliminary examination required by the Council.

Dr. ANDREW WOOD said he thought if ever there was a case in which action should be taken, this was that case. Under the Medical Act preliminary examinations in general education had been instituted, so that what was by courtesy termed a learned profession in former days should become so literally. They were anxious to prevent preliminary studies taking place during the four years which the Council had decided should be occupied with professional study. The Scotch bodies had loyally complied with this recommendation, and in every case, when asked to make exceptions, they had referred the applicants to the Branch Council. What would be the consequence if every body represented on the Medical Council said, We will do exactly as we like? The resolution of Sir William Gull was framed in the mildest way, and if, after the discussion, the College of Surgeons in Ireland said they would not comply with the recommendation, the case should be carried to the Privy Council. If it were not, the Council would be abdicating its functions, and justifying some of the remarks made lately by witnesses before the House of Commons. He seriously hoped that the College of Surgeons in Ireland would give up what was, by their own showing, not a very great privilege, because if they made only a few exceptions, why not trust those exceptions to the Branch Council? The recommendation was one of great importance, because he believed that without many recommendations professional education would have advanced, but with regard to preliminary education and the registration of students, he maintained that but for the existence of the Medical Act and the Council that great boon to the profession would not have been obtained. He cordially agreed with Sir William Gull's motion, and could not doubt for a moment but that the Irish College of Surgeons would relieve the Council from performing the unpleasant duty which was before them.

Sir DOMINIC CORRIGAN said, in answer to Dr. Haughton's vindication of the University of Dublin, that it was directed in the Dublin University Calendar, page 168, "that no student should be permitted to attend any of the lectures delivered in the School of Physic, or to attend the Sections, who had not complied with the School of Physic Act as to its regulation that all students must be matriculated in Trinity College, Dublin, for which a fee of 5s. is paid without any preliminary examination." His former statement was correct—that students would be registered as medical students without any preliminary examination.

Rev. Dr. HAUGHTON said that, having had personally the duty of entering the medical students during the past sixteen years, he could say that every single student was compelled, in addition to paying the 5s. fee, to produce evidence of having passed a preliminary examination either in Trinity College or some of the recognised bodies.

Mr. MACNAMARA said, after all, an important fact had been lost sight of, that there was not such a wide difference between the College of Surgeons in Ireland and the Council. The College of Surgeons was proud of the fact that from the period of its foundation it had insisted on a *bonâ fide* examination in arts as a preliminary to conferring its licence. The Medical Council recognised that exceptional cases

might occur, but wanted those exceptional cases to be decided by the Branch Council; and naturally a College which had given such proofs of its devotion to the profession felt somewhat jealous of yielding up to a Branch Council a discretion which it believed itself competent and entitled to exercise. It should not be understood by the Council that the exceptional cases were numerous—quite the reverse; and if it would be a satisfaction to the Council he would obtain and furnish them with a report of the number of such cases, which would, he thought, cause some little surprise. The question would be taken into consideration by the College, which felt somewhat sore on the point, but he (Mr. Macnamara) thought it more than probable that the College of Surgeons would be found to be more loyal to the Council than any other body.

Dr. AQUILLA SMITH regretted that Mr. Macnamara's offer to furnish the number of exceptional cases was not made earlier in the day, as probably in that case the discussion might have been avoided. He thought the Council should postpone the further discussion of the question until that information was furnished.

Sir William Gull's motion was then put to the Council and carried, there being only two dissentients.

Adjourned to Friday at two o'clock.

SECOND DAY—FRIDAY, JULY 18.

The Council met again under the presidency of Dr. Acland.

Mr. MACNAMARA moved—"That it be the duty of the branch registrars in the several divisions of the kingdom to register, at the commencement of each session, the names of all students, and the hospitals and lectures for which they may have entered; and that it be strongly recommended to each of the licensing bodies not to accept any certificate for attendance on hospitals or lectures unless such shall be certified to them by the branch registrars as having been duly entered in these registers on or before the last day fixed in each division of the kingdom for the commencement of the session." He said he had great pleasure in moving the resolution, in consequence of what had occurred on the previous day, when there was something like a guarantee on the part of the College of Surgeons in Ireland that they would attend to the recommendations of the Council on the subject of the registration of students. They were anxious to make them efficient. The Medical Council seemed to have gone on a wrong issue, inasmuch as the only difference between his Council and the Medical Council was as to whether the Branch Council should decide on exceptional cases or the Council of the College—a very small matter, the number of cases coming up for decision being very few. The College of Surgeons had long insisted on preliminary examination, and was anxious to make education as complete as possible. Different dates had been fixed in different parts of the kingdom for the commencement of medical study, and under present circumstances it was quite possible for a student to have fulfilled all the requirements of the Council, although he had entered too late for the first year's lectures, or had evaded what the Council was anxious to carry out. It might be said that the College of Surgeons in Ireland could itself regulate that matter by insisting that a student entering for lectures should attend them, and that he should *bonâ fide* commence his duties at the period laid down. If, however, it adopted such a rule the only result would be that the student would quietly march off to some other place where the rule did not exist, and where they would, in good faith, accept a certificate that might represent only a very small number of attendances. That had been felt so strongly in the University of Dublin that Dr. Haughton had insisted on the roll being called every day, and the certificate stated that so many lectures had been attended. The course in *materia medica* (with which he was most familiar) consisted of not less than forty lectures, and it was required that the student should attend at least thirteen of them. There were six medical schools in Dublin, and there would be no difficulty in carrying out the proposed regulation at all of them. It might throw some additional labour on the Registrar, who would be entitled to some remuneration for it; but he did not know how their funds could be better expended than in securing that the attendance of students at lectures should be *bonâ fide*. He knew that in some places students would present themselves at a school, enter their names, and disappear for the rest of the session.

Dr. ANDREW WOOD: Where is that?

Mr. MACNAMARA would not enter into any controversy on that point. He could only say that it was not in Ireland. (Laughter.) It was pretty well known that in Ireland students might enter late for lectures, and yet there were bodies that would (innocently enough) accept the certificates that had been improperly given. That was the case, for instance, with the Colleges of Surgeons in Scotland and in England.

Dr. HAUGHTON seconded the motion, and said he was quite aware of the existence of the abuses referred to by Mr. Macnamara, and he thought that some steps should be taken to remove them. The fault lay largely with the private schools. Though he seconded the resolution, he thought it did not go far enough.

Dr. ANDREW WOOD thought that the Council had much reason to complain. Instead of urging reform because false certificates were sent, the authorities in Ireland ought to see that the certificates were granted *bonâ fide*. In Scotland the names of students were called, and unless they had fairly attended they were not admitted to examination.

Mr. MACNAMARA: Do you not in Scotland accept certificates from Ireland which do not show what attendance there has been?

Dr. ANDREW WOOD: We have put too much confidence in Ireland; but if you do not reform we shall not receive your certificates at all. (Laughter.)

Dr. ROLLESTON called attention to a recommendation of Mr. Simon, in 1869, that returns from the examining boards, showing the proportion of plucked and passed should be made to a general authority. The real thing, he said, was to trust to the competition among the schools, and not to complex and illusory regulations.

Sir DOMINIC CORRIGAN protested against the statement that the private schools were at fault; and expressed his belief that a roll-call would be ineffectual to meet the evil complained of. One man would answer for three or four; and even students who attended would often amuse themselves by reading novels. The only good of a roll-call was that it diminished the labour of the lecturer, since the call in a large class would sometimes occupy half an hour.

Dr. AQUILLA SMITH thought the proposal of Mr. Macnamara was impracticable, and would throw enormous labour on the branch registrars. He agreed with Sir Dominic Corrigan as to the uselessness of a roll-call. It was a waste of time, and it accomplished no good purpose. There should be a free competition among lecturers to attract students.

Mr. TEALE did not think the roll-call was useless. Where students were residing with and assisting medical men, it was a great advantage to them to be able to say that at a certain time they were required to attend a lecture.

Dr. QUAIN said he knew nothing more cruel than to send students to attend lectures at some of the London schools, where the lectureships were often filled up by chance. The great remedy for the evils complained of was a strict examination, and not a series of rules as to minute details.

Dr. STORRAR expressed a similar view, and said that the only thing to rely upon was a strict examination.

Sir WILLIAM GULL thought it cruel to enforce attendance on lectures. All lectures should be demonstrations, and the object of an examination should be to test a man's practical knowledge.

Mr. MACNAMARA then replied. Parents, he said, often detained their children at home when they should be at the medical school; but they would not do so if it were known that attendance upon the lectures was imperative.

The motion was put, and negatived by a large majority, only two members (the mover and seconder) voting in its favour.

Dr. HAUGHTON then moved—"That the Council do proceed to inquire what precautions are taken by the several medical authorities and corporations to secure that the certificates accepted by them from the several medical schools and hospitals guarantee a definite amount of attendance on the part of the holder on lectures, dissections, laboratory work, and hospital work; and are not merely receipts for money paid without inquiry into the actual attendance of the holder of such certificates." He hoped with Sir William Gull, that the time would come when the knowledge to be required would be practical, and that the present system of lectures would be abolished. That was largely the case in the University of Dublin, where the lectures were reduced to a minimum, the students being required to attend three-fourths of the

course. The students were allowed a great freedom of choice, and could go to any of the six medical schools and any of the ten hospitals for their instruction. There were two classes of certificates issued, one giving a guarantee of attendance, and the other giving no such guarantee, but merely certifying the payment of a certain sum of money. If lectures were to be continued, they ought to be properly attended, and the attendance should be guaranteed. As to laboratory attendance, no guarantee was necessary, as the students were not likely to neglect it. He did not think that the existing evils could be met by the best examinations in the kingdom, the strictness of which could be easily met by clever and skilful teachers.

Mr. MACNAMARA seconded the motion.

Sir DOMINIC CORRIGAN agreed with Sir William Gull that examination was the only true test of a man's knowledge. The misfortune was that the examinations were not of a right character. If they could be made purely demonstrative, no ignorant student could possibly pass them. The examiners should be properly paid, and should not hold office too long. The roll-calls, he believed, would be perfectly useless, and he therefore opposed the motion.

Dr. AQUILLA SMITH opposed the motion. He said the proposal was impracticable. The Council could not enforce it; and he was unwilling that it should multiply its "recommendations," which were only laughed at.

Dr. STORRAR protested against the notion of the recommendations of the Council being laughed at. That might be the fact in Ireland, but not in England or Scotland.

Sir JAMES PAGET said that all who had experience in certificates found that, do what they might, they could be evaded. Those who had to judge of their value could only judge according to the value of the names appended to them. As members of the profession they were bound not only by laws but by honour; and if teachers did not recognise that it was their duty to sign nothing but what was true, it was useless to put them under strict regulations. The certificates ought to be accepted as honest representations; and, if they were not, the blame should rest upon those who stated falsehoods. If they were false, the students would learn to become unworthy members of the profession; the schools would not be so prosperous, and they might at last find the advantage of telling the truth. He should look with regret upon the adoption of the proposed regulation as a recommendation of the Council. They ought not to recommend that which they could not enforce, and they could not enforce it before the Privy Council. It was said that fitness should be tested by final examinations. No one could have greater confidence in examinations than himself. He desired that they should be thoroughly practical; but a student might pass through a practical examination with credit, not committing a single error, and yet be only partially fit to become a medical man. He should be examined not merely to test whether he had knowledge enough to begin at once the practice of his profession, but to test whether he had been so educated that as time went on he would be able to bring a scientific tone of mind to bear on new things that might be brought before him. No one was fit to begin to practise who was not fit to begin to study as he pursued his practice. That could only be tested by written and oral examinations. The Council ought to decide, as far as it could, the method of education, so that the student might be tested as he went on. When a man who had not pursued the right method was rejected at the end of his four years, besides being a disgrace it was a severe penalty not only on himself but on his father, upon whom it often fell with the greater weight.

Dr. HUMPHRY expressed his entire concurrence with the remarks of Sir James Paget. Examinations were not of themselves sufficient. They were only minimum examinations, and it was not difficult to teach men up to them; but that was not all that was required. He agreed that examinations should be practical, but it was no less important that the principles of medical science should be taught and tested, and that could only be satisfactorily done by means of lectures. The men who passed the best examinations were the men who had best attended lectures. He had found that the best men cheerfully attended voluntary lectures. The real secret of successful teaching was frequent class examination, as recommended by a resolution of the Council.

Dr. QUAIN said if lectures were made attractive they need not be made compulsory. The less compulsion the better.

Dr. ROLLESTON said it should be remembered that there were examinations and examinations. The *Staats Examen* of Germany and Austria might occupy four or six months, and the student had to take two patients under his charge for eight days, which was an education in itself. He saw no reason why England could not do what the Germans did.

Dr. ANDREW WOOD said he had understood from Mr. Turner that the *Staats Examen* had proved a failure in Germany, and had been greatly changed. Mr. Turner, he believed, was that day giving evidence to that effect before the Select Committee of the House of Commons.

Dr. ROLLESTON said he had not Billroth's book with him, but if it was true that the system had been changed and approximated to the English method he would acknowledge that he was wrong.

Sir WILLIAM GULL said that a student's intellectual fitness could be well tested by a practical examination, say of a specimen of albuminous urine, and of the patient at the bedside, in which he should be required to state the whole history and condition of the patient, and the reasons for his disorder. He quite agreed in the desirability of a preliminary education and examination to test intellectual fitness; but the present professional examinations were ridiculous. The student should be taken to the laboratory and the dissecting-room, so that his knowledge might be thoroughly tested. It was not fair to reject him after a quarter of an hour's examination.

Dr. PITMAN said the discussion had departed very widely from Dr. Haughton's motion, which raised the question whether the certificates given by teachers were anything more than receipts for money, and to that question the consideration of the Council ought to be given.

Mr. SIMON said that among the many discursive discussions which he had heard at the Council he did not recollect to have listened to one that had so widely departed from the exact matter in hand. The question of medical education, the value of lectures and examinations, and subjects of that kind, were not then under consideration. If ten minutes ago he had been asked to vote for the proposal of Dr. Haughton he should have refrained from doing so upon the ground that he did not quite like all the expressions contained in it, though he agreed in its general intention, for he thought it quite right that the Council should know what was the meaning to be attached to certificates of attendance of lectures. A statement, however, had been made to him by Dr. Haughton of a somewhat startling character which had led him to alter his determination and vote for the motion. Dr. Haughton would, perhaps, in his reply repeat that statement to the Council.

Dr. HAUGHTON said that whatever might be the fate of his motion he had no reason to regret that he had brought it forward, as it had elicited so much valuable expression of opinion and information from various members of the Council. It was true that the discussion had not kept strictly to the line of the resolution. As far as he could gather there was no serious objection made to the resolution itself. If it would conciliate the opinions of others he should have no objection to leave out the last clause, which, however, was a mere statement of fact. He quite agreed with those who had spoken as to the good effects that might be produced by a combination of written and oral examinations, and if he had made any slighting remarks with reference to examinations in general, he only intended them to apply to those perfunctory examinations that were too often held. The fact that he had stated to Mr. Simon, and that he would repeat to the Council at his request, was that it had come to his own knowledge that certificates had been issued in cases where there had been no attendance at all. It was on that account that he had thought it right to call such certificates mere receipts for money. He was able to make the statement on his own personal authority. With regard to the Trinity College, Dublin, it should be remembered that it had done all it could to enable lecturing to be reduced to a minimum, and it was therefore not unreasonable that it should require a certificate of *bona fide* attendance. It required that all the schools should keep a roll-call of Trinity College residents, and the hospitals were also required to keep a roll-call of the students. If that system was a right one he thought that the Council ought to express an opinion whether it ought not to be extended to other students than those in the universities.

The motion was then put and rejected, six voting in its favour and twelve against.

Mr. SIMON asked whether he should be in order if he inquired the name of the authority that received the certificates referred to by Dr. Haughton. (No, no.)

The PRESIDENT said he thought the question could not then be properly put. It would require a notice of motion, and would have to be brought on on another occasion.

Dr. ANDREW WOOD moved the reception of a communication from the King and Queen's College of Physicians in Ireland in reference to the Medical Bills referred to the Select Committee of the House of Commons, and suggested that it should be entered upon the Minutes.

Dr. STORRAR referred to the great expense of the printing of the Minutes, and said that, with great respect to the College, he did not think the document was one that should be printed.

After a short discussion, it was decided that the document should not be entered upon the Minutes.

The following certificate of the conviction of a medical practitioner was read:—

Central Criminal Court (to wit).—These are to certify that at the general session of the delivery of the Queen's Gaol of Newgate, holden for the jurisdiction of the Central Criminal Court at Justice Hall, in the Old Bailey, in the suburbs of the City of London, on Monday, the 26th day of May, in the year of our Lord 1879, before certain justices of our said Lady the Queen, assigned to deliver the said gaol of Newgate of the prisoners therein being, Adam Addison was in due form of law convicted on a certain indictment against him for feloniously killing and slaying Mary Ann Robinson, against the statute, etc., and against the peace, etc., and the said Adam Addison was thereupon ordered to be kept in penal servitude for seven years.

Dated the sixth day of June, 1879.

HENRY AVORY,
Clerk of the said Court.

In reference to this certificate, the following motion was read from the chair, and adopted without discussion:—"The Council, having heard the certificate of conviction of a registered medical practitioner, Adam Addison, direct the Registrar to erase from the Register the name of Adam Addison, Licentiate of the Royal College of Physicians, Edinburgh, and Licentiate of the Royal College of Surgeons, Edinburgh."

The following communications from the King and Queen's College of Physicians in Ireland and the Royal College of Surgeons in Ireland with regard to the case of James Patrick Murray were read:—

(a) *From the King and Queen's College of Physicians in Ireland.*

Dublin, June 26, 1879.

Dear Sir,—I am directed by the President and Fellows of this College to send you the accompanying copy of resolution adopted by the College on 20th inst., in accordance with Section XXVIII. of the Medical Act (1858), and to signify to the General Medical Council that the name of Mr. James Patrick Murray has been struck off the roll of licentiates of the College.

I have the honour to be, dear Sir,

Your obedient servant,

W. J. C. Miller, Esq.,

J. MAGEE FINNY, M.D., Registrar.

Registrar of the General Medical Council.

(b) *From the Royal College of Surgeons in Ireland.*

Dublin, July 14, 1879.

Sir,—I am instructed by the President and Council of this College to report to you, for the information of the President and members of the General Medical Council, that, in virtue of the powers vested in them by the charters of this College, they have this day removed the name of James Patrick Murray from the list of licentiates of the Royal College of Surgeons in Ireland, and have called upon him to return to them his letters testimonial, as such, for the purpose of having same cancelled.

I am, Sir, your obedient servant,

W. J. C. Miller, Esq.

JOHN BRENNEN, Registrar.

The following motion was put from the chair:—"That the King and Queen's College of Physicians in Ireland, and the Royal College of Surgeons in Ireland, having signified to the Council that the name of James Patrick Murray has been struck off the rolls of licentiates of those colleges respectively, the Council direct the Registrar to erase his name from the Medical Register in conformity with section 28 of the Medical Act, he no longer possessing any qualification for registration." He also stated that a letter had been received by the Council from Mr. Murray, dated July 16, appealing against the decision of the colleges, and asked whether it was the desire of the Council whether the letter should be read. The case before the Council was that of a gentleman who had had two qualifications; by which he had been registered, removed; and the question was whether, those qualifications having been removed, his name could still be retained upon the Register. Under Clause 28 of the Medical Act, the Council had power to remove the name if they saw fit. The letter from Mr. Murray did not raise the question whether the qualifications had or had not been removed.

Dr. PITMAN asked if it was not right that strangers should withdraw during the discussion of the question?

The PRESIDENT said the case was somewhat peculiar, and he was not aware that any precisely similar one had occurred. He should like to take the opinion of the Council upon it. In ordinary cases of that kind the deliberation took place in private, and the subsequent proceedings in the presence of strangers. The question at present before the Council was whether the appeal from Mr. Murray should be read in public?

Sir DOMINIC CORRIGAN said it was a point of order which the President ought to decide.

The PRESIDENT said in that case he would rule that the letter be read.

The letter was accordingly read. The writer stated that necessity compelled him to appeal to the justice of the Council. He was first registered in August, 1860, and his name was erased on account of certain strong representations that had been made against him. He had appealed for registration in October, 1877, and after a long investigation of his case the Council had decided that his name could not be properly restored. In January, 1878, a subsequent appeal led to fresh investigation, and to the restoration of his name to the Register. Subsequently a powerful party took hostile action and conducted an attack without giving him an opportunity for defence or even notice of their procedure, and the result was that his name had been erased from the rolls of membership. The King and Queen's College of Physicians had not even accorded him a trial, though he had asked for it. The Royal College of Surgeons accorded a trial, but his case was really adjudged before the question of trial was entertained. He complained that the deliberations of the Council and their final verdict had been surreptitiously annulled either by the hostile act of individuals, or by some responsible corporations who had occupied the anomalous position of plaintiffs and judges. He was sure that such a travesty of justice could not satisfy a body of men of enlightened judgment. The Council had pardoned him and placed him on the Register, and he contended that it was unjust that he should be tried again for the same offence because two corporations had removed his name under circumstances utterly disastrous to the unfortunate victim. He appealed to the Council to save him and his family from so terrible a misfortune.

The PRESIDENT said he thought he ought to state, as President of the Executive Committee, that there was a statement in the letter of Mr. Murray which hardly represented the right order or the strict character of the occurrences. The letter stated that Mr. Murray had been pardoned, that there had been an act of condonation on the part of the Council. The facts were these: the name was removed from the Register under a clause relating to the loss of addresses. The Executive Committee inquired with the greatest deliberation and anxiety what was right to be done under the circumstances, and they discharged what was certainly a painful duty in putting Mr. Murray's name upon the Register, because it had not been removed on account of any offence, but for quite another cause. The Committee were aware that they might be exposed to censure, having before them evidence concerning Mr. Murray's previous history and conduct; they discharged, however, what they considered to be an act of justice, but the insertion of Mr. Murray's name was not by any means a condonation of any previous offence. The question now was, whether, the two bodies to which he had belonged having removed his name from their lists, the Council was also to remove his name from the Register. The question was to a certain extent a legal one, and Mr. Ouvry was present to give his advice if necessary. There was perhaps a technical difficulty in the matter, but he hoped he had stated the question plainly to the Council.

Dr. AQUILLA SMITH asked what the technical difficulty was.

The PRESIDENT said that Clause 28 stated that, "If any of the said colleges or the said bodies at any time exercise any power they possess by law of striking off from the list of such college or body the name of any one of their members, such college or body shall signify to the General Medical Council the name of the member so struck off, and the General Medical Council may, if they see fit, direct the Registrar to erase forthwith from the Register the qualification derived from such College or body in respect of which such member was registered, and the Registrar shall note the same therein: provided always that the name of no

person shall be erased from the Register on the ground of his having adopted any theory of medicine or surgery."

Dr. ANDREW WOOD said he thought that the proviso at the end of the clause was a practical commentary on it, because it contemplated the erasure of a person's name as well as of his qualifications. It would be a *reductio ad absurdum* to retain a name on the Register without any qualification. With regard to the letter addressed to the Council by Mr. Murray, he hardly thought that that gentleman had made a judicious appeal to the Council; his appeal ought rather to have been to the bodies who had removed his qualifications. The Council had no right to restore them.

Dr. AQUILLA SMITH said he could not conceive how any difficulty could arise in the matter. Everyone was aware of the provision in the Medical Act giving power to the Council (which it had often exercised) to remove the name of a person who had been found guilty of felony or misdemeanour. Clause 14 was intended to provide for classes of offences the Council not reach. It was no part of the duty of the Council to inquire into the power of the College of Physicians or the College of Surgeons in Ireland to erase a name from their lists. Mr. Murray's letter contained a gross mistake. It had been stated that his name had been removed on strong representations, but that was not the fact; it was removed because he did not answer the letters that had been addressed to him, and not in consequence of strong representations made by anyone.

Mr. SIMON said that it would be desirable to have the advice of Mr. Ouvry as to whether Clause 28 entitled the Council, under the circumstances, to strike off Mr. Murray's name as well as his qualifications.

Dr. HALDANE thought that the question could not be raised unless the Council was satisfied that the grounds on which Mr. Murray's qualifications had been taken from him were correct. It was possible that the two bodies might have removed his qualifications because he had adopted some special theory, and that would be contrary to the intention of the proviso at the end of the clause.

Dr. HAUGHTON said the matter was a very serious one, and he would not ask the Council to accept the decision of either of the colleges without inquiry. He had had no difficulty himself in coming to a deliberate conclusion on the subject, but it would be wrong for the Council, without having the facts before them, to take so serious a step as to remove a person's name from the Register. It appeared that Mr. Murray's crimes were known to the Executive Committee, but that they had not communicated with the colleges on the subject.

Dr. ROLLESTON thought that the corporations had done themselves great credit in the course they had adopted. Without going at present into the merits or demerits of the case, he recommended the Council to stand upon the technical ground, and to remove Mr. Murray's name from the Register. He had found, on inquiry, that the Executive Committee had had a long and painful correspondence on the subject, and that they had been to a great extent baffled. As soon as it came to his knowledge he had suggested to Dr. Haughton, Dr. Smith, and Mr. Macnamara to take the matter up; and the course that they had adopted was beyond all praise.

Mr. MACNAMARA said that the Council of his College were aware of the circumstances of the case for the first time on June 23. Before that time they had no means of knowing what the offences of Mr. Murray were. From the statements made by the Executive Committee the case seemed to be quite an ordinary one. When the subject came before the Council of the College in June, they appointed a committee, which, on inquiry, recommended Mr. Murray's expulsion. They were, however, so much actuated by the spirit of fair play that, without being asked to do so, they sent Mr. Murray a summons under the charter, calling upon him to appear, giving him the longest possible period for doing so. When he appeared a number of questions were put to him as to his alleged offences, which he was obliged to acknowledge. The question now before the Council was a very simple one. Mr. Murray had only got on the Register in virtue of his qualifications, and, now that the qualifications had been removed, the Council had to decide whether he should remain on the Register.

Mr. OUVRY, in reply to a question from the President, said: According to the true construction of the Act, I think you are empowered to strike the name from the Register.

I cannot conceive any construction of the Act, however unartificial the words may be, that will enable you to retain upon the Register a man who has ceased to have any qualification.

It was resolved that Mr. Ouvry's opinion be entered on the Minutes.

The motion previously read by the Chairman was then put to the Council and unanimously adopted.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CASES ILLUSTRATING THE

TREATMENT OF FIBROIDS OF THE UTERUS BY ERGOT.

By G. ERNEST HERMAN, M.R.C.P.,
Assistant Obstetric Physician to the London Hospital.

(Continued from page 31.)

IV.—CASES IN WHICH NO APPRECIABLE BENEFIT FOLLOWED THE ADMINISTRATION OF ERGOT.

Case 16.—Large Submucous Fibroid springing from Posterior Wall of Uterus—Hæmorrhage, Pain, and Watery Discharge—Administration of Ergot internally, with Rest in Bed for Two Months—No Diminution in Size of Uterus, and no marked Improvement in Symptoms.

[Reported by Dr. S. D. CLIPPINODALE.]

M. A. G., aged thirty-nine, widow, admitted into the London Hospital, April 9, 1877.

Her history was as follows:—She first menstruated at the age of fifteen. The catamenia were always accompanied with pain, but were regular until the present illness, except during pregnancy. She was married when aged twenty, and had a child two years afterwards, the labour being natural and easy. Her present illness began in October, 1875, with large losses of blood occurring almost every week. In June, 1876, she first noticed a lump in the lower part of the belly on the right side. The lump got bigger, and as it grew it became more central in position. With its increase in size the hæmorrhage rather diminished. During this time she felt shooting pains in the tumour, extending to the back and down the legs, and worse at night. She also suffered from a profuse watery discharge, most copious during or immediately after the menstrual period, then gradually diminishing, and sometimes entirely ceasing for a day or two before the next menstrual period. It was so abundant that she thought she must have lost sometimes a pint of fluid in the twenty-four hours. Her feet at times swelled; she had lost flesh during her illness, and she complained of lowness of spirits. She was much wasted, and her expression was anxious. She was very pale and anæmic, her skin yellowish and waxy-looking, the sclerotics bluish, and there was pigmentation under the eyes.

On abdominal examination, a rounded tumour could be felt in the hypogastric and lower part of the umbilical regions, reaching to within half an inch of the umbilicus, the larger part of it being to the right of the median line. By vaginal examination the cervix was felt small and hard; the uterine sound entered four inches. Bimanual manipulation demonstrated the continuity of the abdominal swelling with the cervix uteri, and that the tumour was freely movable. There was no erosion of the cervix. Over the sides of the tumour a blowing murmur, synchronous with the heart's action, and varying in loudness from time to time, could be heard.

There were no physical signs of disease in the lungs nor in the heart, with the exception of a systolic murmur loudest over the pulmonary cartilage. A venous hum was audible in the neck. She was given ext. ergot. liq. ʒss., spt. amm. arom. ℥xx., aq. ad ʒj., three times daily. She was kept in bed and given a liberal diet.

On April 21 to this was added a pill containing iron, to be taken every night. It was several times observed, both by myself and by Dr. Francis Warner (Medical Registrar), that the tumour could be felt to alternately get smaller and harder, as from uterine contraction, and larger and softer, as from relaxation, in the manner which has been described by Dr. Braxton Hicks as occurring during pregnancy. Dr. John Williams, who on one occasion saw the patient,

remarked on the resemblance of the abdominal tumour to a pregnant uterus.

No considerable improvement, if any, took place under this treatment; therefore, on May 7, the cervical canal having been dilated with sponge-tents, the uterine cavity was explored.

On the evening of May 6, while the dilatation was going on, the temperature reached 102°. On the evening of the 7th it was 101°, and then it fell to normal. A large soft, but firm, tumour was found springing from the posterior wall of the uterus, rather more to the right than to the left. The base of the tumour was so broad as to form its greatest diameter, and therefore it was not thought well to attempt its removal.

On May 17 the cervix uteri was again dilated, this time without any accompanying pyrexia, and the uterine cavity was swabbed with tincture of iodine applied on one of Playfair's probes.

The patient thought that the watery discharge became less after this application. She menstruated twice while in the hospital, the discharge being much the same in quantity as before admission. After the first menstruation (April 25) it was noted that there was room for two fingers between the highest point of the tumour and the umbilicus; but the uterus subsequently regained its former size.

On July 9 she left the hospital. She thought herself better in general health, and on the whole benefited by her stay in the hospital, but there was no change which indicated any definite improvement. She lived some distance from the hospital, and therefore did not attend as an out-patient.

On November 13, 1878, she attended in answer to my inquiry about her health. She still looked very anæmic, and she said that the abundant watery discharge continued. She did not seem in any way worse than when in hospital. I wished her to re-enter the hospital to try the effect of ergot hypodermically, but she thought herself well enough to do without any further treatment.

Case 17.—Uterine Fibroids—Hæmorrhage—Pain—Ergot taken internally, with Intermissions, for more than a year—No appreciable Benefit.

E. P., aged forty-two, labourer's wife, came to the obstetric out-patient department of the London Hospital on June 6, 1877.

She was of feeble intelligence, and her statements were all vague, and sometimes contradictory. It was therefore impossible to get a very exact account of her symptoms; but the following facts seemed pretty clear. She had had one child, nineteen years before coming to hospital. Since then the catamenia had been regular and painless till within the last three or four months, since which time hæmorrhages more copious than her usual menstrual flow, and attended with pain, had come on at irregular times. She had also suffered from pain referred to the left iliac region, which was worse on exertion. She complained much of sleeplessness. There was much abdominal tenderness and rigidity of the muscles, and therefore the exact outline of the uterus could not be ascertained, but there was no doubt that it was enlarged, irregular in shape, and very hard. It was movable. The right lobe of the thyroid was enlarged. She said it had been so from her childhood. There were no physical signs of disease in any other part. She was given ext. ergot. liq. ʒss., spt. amm. arom. ℥xx., aq. ad ʒj., ter die. She lived in the country, and did not attend very regularly; but she took this medicine, or a mixture containing ergot, on and off for more than a year. On April 20 it was noted that the uterus reached not quite half-way between the pubes and umbilicus; it was thought to be rather larger than formerly. Her symptoms did not undergo any considerable improvement. Sometimes she thought herself better, and sometimes worse, but on the whole there was no decided benefit.

Case 18.—Fibroid of Uterus—Occasional Copious Hæmorrhages at Distant Intervals—No Definite Change following the Administration of Ergot.

S. K., aged sixty-eight, monthly nurse (widow), came to the obstetric out-patient department of the London Hospital, January 2, 1878.

She gave the following history:—She first menstruated between the ages of thirteen and fourteen, and was regular until her marriage, the flow lasting seven days, being copious, and attended with much pain and sickness, but not enough

to lay her up. She was otherwise well until her marriage. She was married between seventeen and eighteen, and almost directly began to get ill. There was dyspareunia throughout, the pain making her feel faint and sick, and intercourse was always followed by hæmorrhage. The catamenia were regular, but more copious than before marriage; there was no intermenstrual hæmorrhage except what has been mentioned. She suffered from constant white discharge, varying in quantity, from her marriage until the "change of life," also from pain in micturition, and constant inclination to pass water.

Menstruation ceased at the age of fifty-four. She said that she had lost blood from the "back passage" ever since ceasing to menstruate, the hæmorrhage coming on at intervals of a month or so, and lasting from two to six weeks at a time. For fifteen years she had had to wear a napkin "to keep the womb up." Eighteen months before coming to hospital, hæmorrhage from the vagina came on, and lasted for two months; it recurred seven weeks before she came to the hospital, and lasted until that time. She had not lost flesh. On account of tenderness and contraction of the abdominal muscles nothing could be made out by abdominal palpation. On vaginal examination, a rounded hard tumour, as big as a cricket-ball, could be felt in the pelvis, continuous with the cervix, and moving with it. The sound entered four inches. The cervix was healthy. My notes of the condition of other organs are unfortunately incomplete. She was given ext. erg. liq. ʒss., spt. amm. arom. ℞xx., aq. ad ʒj., three times daily.

January 15.—She said she had kept her bed as much as possible, and the hæmorrhage was getting less.

February 20.—She said that a few days after the last attendance she had much flooding, which lasted two days. On the 18th a great discharge of "blood and corruption" began, which was still present.

March 6.—No hæmorrhage since last note. Thinks herself very much better in every way.

I have narrated these cases in greater detail than may seem necessary for the immediate purpose of their publication. I have done so because I think that it is only by the publication of cases reported as fully as possible that we can ascertain the class of cases to which particular modes of treatment are most likely to do good, and also because some of them illustrate the natural history of the disease. I shall in a subsequent communication compare my own experience with that of others, and endeavour to arrive at some conclusions as to the value of this mode of treatment.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY. — MIDDLESEX HOSPITAL.

CASE OF ACUTE PEMPHIGUS—RECOVERY.

(Under the care of Dr. SIDNEY COUPLAND.)

[From notes taken by Mr. C. R. TYRRELL, Clinical Clerk.]

ANN K., aged forty-five, a hard-worked woman, was admitted into the Middlesex Hospital on October 12, 1878. Her previous health had been good, the only illness from which she had ever suffered being an attack of bronchitis in the previous winter. Her present illness began on Monday, October 7, when she noticed that a "blister" had formed on her nose; a scab formed on it after she had ruptured it, and other similar spots made their appearance on the face, then on the neck, chest, and axillæ. She was attacked with shivering as the eruption came out, lost her appetite, and became very weak. When the blebs first appeared they itched very much, and are now very painful and tender.

State on Admission.—Patient is a dark-complexioned, unhealthy-looking woman, very prostrate and depressed. The tongue is dry and brown, especially in the centre, where a broad brownish band exists. Pulse 108; temperature 100.4°. There is a profuse bullous eruption in various parts of the body. The skin of the face has a somewhat shiny appearance, and is the seat of this eruption as follows:—On the left side of the upper lip there is a thick dry yellow crust extending on to the ala of the nose. At the tip of the nose there is a small excoriation of a reddish colour with pale

whitish margin. At inner angle of right eye is another excoriated surface, and both eyelids are much swollen and reddened; the conjunctivæ injected. There is a single scab on the hairy scalp. Over the front of the chest are several ulcers, about the size of a shilling, which, denuded of epidermis, are covered with thin yellowish scabs, the surrounding tegument being of a livid red colour. In each axilla and over the sides and front of chest are grouped numerous bullæ, most of them of the size of French beans, containing a clear fluid. The eruption is most symmetrical in its distribution; it does not extend much below the upper half of chest, and it consists not only in bullæ of the size above stated, but also in papules and vesicles of the size of pins' heads. There is a similar, but much more sparse, eruption on the back, and a single bulla on the outer side of the right leg has ruptured, leaving a thick scab in this situation. The patient also has a whitlow at the base of the right thumb-nail. There is no itching of skin, but a general burning sensation. Urine, specific gravity 1010, acid; no albumen, but phosphates. She was ordered a diet of beef-tea, milk, and eggs, six ounces of port wine, and a mixture containing liquor arsenici hydrochlorici and sulphate of quinine. Carron oil was used as a local application to the axillæ. Evening: Temperature 100.2°; pulse 100.

October 13.—Temperature 99.6°; pulse 92. There is less prostration; but the tongue remains brown, and some fresh bullæ have appeared on the chest at a lower level than those previously noticed. Evening: Temperature 101°; pulse 100. A chloral draught given at night.

14th.—Temperature 98.6°; pulse 84. There is no further eruption; those on the back extend as low as the buttocks, and one or two of the bullæ have ruptured, producing an excoriation at the lower part of the dorsal region on the right side, about two inches and a half in diameter. In front most of the smaller papules and vesicles have disappeared, and several of the larger blebs have ruptured. Evening: Temperature 100.6°; pulse 100.

15th.—Temperature 99°; pulse 100. Evening: Temperature 99.8°; pulse 96.

The case continued to progress favourably. On the 16th the dose of the liquor arsenici was increased to eight minims instead of five; and on the 17th she was placed on ordinary diet. The tongue cleaned and became moist; the temperature fell to normal; and beyond slight delay in healing of some of the excoriations, the case did very well. By the 24th hardly any eruption remained; only a brownish and purplish stain, and a roughened, mammillated condition indicating in places where the eruption had previously been. The arsenic was continued until her discharge on November 2, with the difference that from October 25 she took Fowler's solution combined with the ammonio-citrate of iron, instead of the acid solution.

Remarks.—Cases of acute pemphigus are admittedly rare. Indeed, it is well known that Hebra denies ever having met with a case. The subject has been recently so fully treated by Dr. Sangster in the *Medical Times and Gazette* (1879, vol. i., pages 5-7) that the present case may almost be left without comment. It may be remarked, however, that, as in all cases, it occurred in an over-worked, badly-fed subject; that it was accompanied by considerable constitutional disturbance, chiefly great depression, the pyrexia not being high, and there being no albuminuria. How far the arsenic influenced the progress of the case cannot be said, aided largely as it was by diet and rest.

A MEETING of the British Medical Temperance Association was held on July 17, in the rooms of the Medical Society of London. The President, Dr. Richardson, F.R.S., exhibited his newly invented sphygmophone; he also showed Prof. Hughes' audiometer and various forms of artificial tympanums which he had invented and tested by its means, one of the most useful being a simple disc of very thin gold applied directly to the perforated drum. Dr. Norman Kerr read a *précis* and review of the recent experimental researches of Drs. Dujardin-Beaumetz and Audigé on the toxic power of the alcohols, from which they conclude that all the alcohols are poisonous in various degrees even when pure, and that while common or ethylic alcohol is least detrimental by itself, it is invariably accompanied with varying amounts of the heavier and more highly injurious alcohols in the wines and spirits of commerce. An interesting discussion followed.

A number of communications were received in regard to registration in Canada, but we commented upon these in an article on Colonial Medical Registration just a month ago, and need not speak further on the subject now. A correspondence in regard to certain irregularities in medical students' registration excited a long and rather warm debate. The Council recommend that no students be allowed to commence their professional studies or to register as medical students before passing their preliminary examination ; but add to this recommendation that "the several branch Councils shall have power to admit special exceptions" to the regulations as to registration, for reasons which shall appear to them satisfactory. It was brought under the notice of the Council that the Council of the Royal College of Surgeons in Ireland themselves decided as to exceptional cases; and a communication was sent to the College calling attention to the recommendation of the Council. The Council of the College took the communication into their "serious consideration," and replied that they could not agree to the recommendation of the Medical Council to refer to the Branch Council, or to resign into other hands

than their own their right of adjudication upon cases of students who may commence their professional studies antecedent to having passed their preliminary examination. The Executive Committee, on receiving this answer, referred the matter to the Branch Council for Ireland for observation, but the Branch Council only observed that the question raised was one that lies between the Council of the College and the Medical Council itself. Thus the question came before the Medical Council, and after some preliminary observations by several members, Sir William Gull and Mr. Simon moved a resolution expressing the regret of the Medical Council at the continued non-compliance of the College, and the trust that the Council of the College "will reconsider their action in regard to the matter in question." This led to renewed discussion, and the Council of the College were at first, through their representative, rather defiant; but, finally, Mr. Macnamara said that his College would take the question into consideration, and that though the College felt somewhat sore on the point, he thought it would be found more loyal to the Council than any other body. Sir William Gull's mild resolution was then carried by a very large majority.

On Friday, Mr. Macnamara and the Rev. Dr. Haughton brought forward a motion to require the branch registrars to register, at the beginning of every session, the names of all students, and the hospitals and lectures for which they had entered; and recommending the licensing bodies not to accept any certificates not certified to them by the branch registrars. But the resolution met with general protest, as being a complex and illusory regulation, and making too much of attendance on lectures; and on division it was supported by only two votes. Dr. Haughton and Mr. Macnamara then moved a resolution to the effect that the Council should inquire what precautions the medical authorities and corporations take to secure that the certificates accepted from medical schools and hospitals guarantee a definite amount of attendance on lectures, dissections, and so on, and are not merely receipts for money paid. This led to an interesting discussion, which, however, was chiefly on the value of examinations as compared with that of certificates as a proof of education. Sir James Paget, however, declared that "do what they might, certificates could be evaded"; that if teachers did not recognise that it was a matter of honour to sign nothing but what was true, it would be useless to put them under regulations; and that, if certificates were false, the blame must rest upon those who stated falsehoods. Mr. Simon supported the resolution, because Dr. Haughton stated that he knew as a fact that certificates had been issued in cases where there had been no attendance at all. The motion was negatived by twelve votes to six.

Much time was occupied by the consideration of the case of James Patrick Murray. Our readers may perhaps remember that this person was some years ago connected with some horrible barbarities in connexion with what is euphemistically called the South Sea labour trade. An inquiry was made into the matter at the time, and the man escaped punishment by, we believe, turning Queen's evidence. His name was removed from the Medical Register, under Section 14 of the Act, but on his return to England he had to be restored to the Register, as evidence of the crimes he was suspected of could not be obtained by the Executive Committee. The Irish bodies whose qualifications he held were led, however, to inquire into the matter, and the result was that they struck his name off their rolls. His letter to the Council was, as the President stated, a tissue of misrepresentations; but a question was raised as to the interpretation of Section 28 of the Act, under which it was proposed to again erase his name, as the section speaks only of qualifications, not of names.

The opinion of Mr. Ouvry, the solicitor to the Council, was asked, and was in accordance with the common-sense view that a man's name cannot remain on the Register when he has been deprived of all his registrable qualifications; and Mr. James Patrick Murray's name was consequently ordered to be erased from the Register.

The only other business done by the Council on the Friday was the re-election of Dr. Acland as President for a term of five years.

On Saturday the debate, which had been just opened when the Council adjourned the day before, on a motion by Mr. Macnamara and Dr. Pitman, was resumed. The motion was to direct the Executive Committee, "in all questionable cases" when persons seek restoration to the Register, to put themselves in communication with the medical authorities whence the qualifications had been derived, before complying with the request. The matter was discussed at much length, one or two members regarding the motion as a most undeserved vote of censure on the Executive Committee, and some holding that the Committee are bound to restore a name removed only under Clause 14, whatever might be the character of the practitioner concerned. Finally, Mr. Macnamara altered the resolution by changing the words "the Executive Committee, before complying with the request, shall put themselves," into "it is desirable that the Executive Committee should, without delay, put themselves," and in this form the resolution was carried. It may safely be said to be harmless.

After some conversation upon Dr. Haughton's statement that certificates of attendance on lectures had been in some cases granted, though no attendance had been given, it was resolved that the Branch Council for Ireland be requested to inquire into the matter and report to the Council thereon at its next meeting. Mr. Simon, after a tedious and wasteful conversation as to whether or not he was in order, and as to whether, if not in order, he should be permitted to continue to be disorderly, was allowed to read out a notice of motion respecting the Lord President's Medical Bill. By far the larger part of the motion was a preamble, constituting a terse speech justifying the expression of opinion by the Council in favour of passing this year those parts of the Bill on which there is nearly a general consent of approval, or of a provisional enactment defining "requisite knowledge and skill for the efficient practice of the profession," as meaning "the requisite knowledge and skill for the efficient practice of medicine, surgery, and midwifery." Mr. Simon stated that should the Business Committee think it would be inconsistent with the business of the session for him to go on with the motion, he would withdraw it; and the Chairman of that Committee having expressed a very decided opinion that it would be very inconsistent with the business, the motion was withdrawn. Mr. Simon observed, however, that if the Council are to sit for any useful purpose, he thought they ought to entertain questions of a similar description to his motion, and we agree with him in that opinion. But Mr. Simon knew very well that the motion must, to be in order, be on the programme of business for the day, and that notice of it might just as well have been given on the first as on the third day of the session. As it was, the whole matter was a waste of time.

The only other business of note done regarded the dental curriculum. The Council resolved that in the last column of the curriculum the words, "in Scotland" and "in Ireland" shall be omitted so as to throw the "examinations *sine curriculo*" in Scotland and Ireland open to Great Britain and Ireland; and "that the Council of the Royal College of Surgeons of England be requested to consider their determination as to admission of candidates for a dental qualification *sine curriculo* up to August, 1881."

THE SELECT COMMITTEE ON MEDICAL REFORM:
THE EVIDENCE OF SIR DOMINIC CORRIGAN
AND OF PROFESSOR TURNER.

THERE have been, as usual, two meetings of this Committee since we went to press last week. The meeting on Friday, July 18, was occupied with the examination of Professor Turner, of the University of Edinburgh. On Tuesday, July 22, the witnesses were Dr. Haughton, of Trinity College, Dublin, and Mr. Ernest Hart, editor of the *British Medical Journal*. The examination of the latter witness was not concluded when the Committee adjourned, and will be resumed at the next meeting, to-day (Friday), when it is expected that Dr. Andrew Wood, of Edinburgh, will also be under examination.

Last week we gave the detailed report of the evidence of Sir James Paget and of Sir Dominic Corrigan, and we also commented briefly on the evidence of the former. We were then unable to make any remarks on the answers of the latter, but proceed to do so now, before noticing the evidence of Professor Turner, which our readers will find in detail in another column along with that of Dr. Haughton. Both Sir Dominic Corrigan and Professor Turner, of whom the one is the representative in the Medical Council of the Queen's University in Ireland, the other of the Universities of Aberdeen and Edinburgh, were unflinchingly opposed to the adoption of the scheme of conjoint boards, at least in anything like the form at present proposed. On the other prominent question—that of direct representation—both again agreed in admitting the desirability that the mass of the profession should, by some means or other, be provided with a few representatives in the Council. But to take each separately.

Sir Dominic Corrigan, who has been a member of the Medical Council since its formation, was utterly opposed, we have said, to the proposed scheme of examinations by three conjoint boards. He thought, in the first place, that the actual formation of three such boards was quite impracticable, from the very diverse character of the universities, corporations, and trading (apothecaries') societies, which the scheme proposed to fuse together, but which, like the metals of the statue in Nebuchadnezzar's dream, never could combine. We have ourselves already expressed our sense of the serious practical difficulties in the way of the adoption of a conjoint examination scheme of the form which has been proposed, and of the very cumbrous character of the arrangement, even supposing it to be feasible in all the three divisions of the kingdom. We further entirely agree with Sir Dominic in his second objection, that in providing three different portals to the profession—viz., one in each division of the kingdom—the proposed scheme would effect no real improvement upon the present state of matters in securing what would be admitted to be a satisfactory uniform minimum standard of proficiency throughout the kingdom. Of course the ready and superficial remark of the advocates of the scheme as it has been proposed is that three boards would surely be more easily superintended by the Medical Council than the existing nineteen licensing bodies. But even this is by no means so very obvious, inasmuch as these same nineteen different bodies would be perpetuated as the component parts of the boards, and the latter would therefore be much different from any the Council has to deal with at present, and much more difficult to manage. Moreover, as Sir Dominic points out, the mere fact that under the scheme as proposed there would be so distinctly and prominently a separate board for each division of the kingdom, would inevitably intensify so much that national jealousy and suspicion among the licensing boards of the different countries and the profession generally, which have been so

very mischievous already, that even less security would be felt than at present that the three boards were all striving to attain the same sufficiently high standard for the minimum qualifications. The advocates of the present scheme say that the Medical Council would easily manage to secure a sufficiently high and uniform standard in the three conjoint boards. But this is asking us to believe that the Council will do in the future what it has utterly failed to do with less complex boards in the past; for, although the apologists of the Council will not allow that it has permitted any of the licensing bodies to retain a standard below what is required for the safety of the public, still almost everyone out of the Council, as well as many in it, feel that the Council has signally failed in this respect, and that the present agitation regarding medical qualifications is explained and justified by such failure. And even if the Council were to secure something like a safe uniformity in the three boards, this would not prevent that mischievous national jealousy and distrust which would certainly be increased by the establishment of three different boards. To obviate these unsettling suspicions, with the resulting insinuations of inferiority made by one licensing board against another, any new minimum examination that may be established must be entirely independent of the interested corporations, or must have the *appearance* as well as the *reality* of actual uniformity. We are not advocating at present the advisability of the establishment of a dull uniform minimum examination before admission to the Register; we only wish to point out that the conjoint scheme, as at present proposed, would secure neither the semblance nor the reality of uniformity in the minimum examinations, and would even tend to increase the heartburning and jealousy now existing between the licensing boards of the three divisions of the kingdom; and, failing in these respects, it would fail altogether in the purposes it is intended to serve. Sir Dominic was of opinion that if any new general examinations were established, the only satisfactory thing would be to have only a single examining body, and not three. He was, however, inclined to leave matters as they were, so far as examining boards are concerned, with the exception that he would have all candidates for Poor-law or State appointments to undergo examinations similar to those passed by the candidates for the Army and Navy. He was for perfect free trade in the medical profession, but by such an examination as he suggested he would guard the poor and the *protégés* of the State from imperfectly qualified medical men, allowing the general public full liberty to employ "quacks," or anyone they might choose. We must say we think the public would be the sufferers if Sir Dominic's proposal on this point were to be carried out.

Yet Sir Dominic was quite right, we think, in maintaining that in all the recent attempts at the improvement of medical teaching and examination the interests of the public had been all but ignored, and those of the corporations and other medical bodies had been mainly attended to. This selfish policy has been too manifest, not only as between the medical corporations and the public, but also as between one set of licensing bodies and another. Thus, when the English bodies, after untold trouble and years of debate and delay, at last agreed on a form of conjoint scheme that seemed the only one suitable for them, without asking the Scotch and Irish bodies whether they *could* patch up something similar, they took the disinterested step of *demanding* that two such schemes should be—per force, if necessary—thrust upon Scotland and Ireland, though the conditions of medical teaching and examination have been and are confessedly quite different in these countries from the position of affairs in England. Sir Dominic's phrase, "the battle of the shops," has certainly been very descriptive, not merely of the discus-

sions of the Council, but of the doings of the licensing bodies.

Sir Dominic was greatly dissatisfied with the dilatory and aimless way in which the Council had transacted its business. He had already suggested certain radical changes in the constitution of the Council, the members of which he would limit to nine, of whom three would be chosen by the universities, three by the corporate bodies, and three by the general practitioners. He would leave the nomination of the President with the Crown. This plan would give the three divisions of the kingdom equal shares in the representation, and he considered this quite proper, as the matter had nothing to do with population. His plan admitted the claims of the general practitioners to direct representation, for he thought the interests of the mass of the profession were subordinated in the Council to the interests of the corporations. Besides, he thought that their registration fees, which formed the revenue of the Council, entitled the profession to direct representation. He would leave to the House of Commons to decide the mode of election of the direct representatives. It is unnecessary, we think, to criticise this scheme of reform in its entirety. It has the merit of simplicity, but that, we are afraid, is the only merit which all the parties concerned will be prepared to admit is possessed by it.

In cross-examination, Sir Dominic repeated his objections to the proposed conjoint scheme, and added his belief that it would be very likely to lower the general standard of medical education, as there would be no inducement to many practitioners to go further than was necessary to secure the minimum qualification. He also recited the melancholy history of the London corporations, which has resulted in the paramount influence of the College of Surgeons and the Apothecaries' Society over the education and licensing of English practitioners, and has rendered necessary the possession of at least two English licences to guarantee a man's fitness to enter into general practice. This history explains, in great measure, the necessity in England for such a crude proposal as that of conjoint examining boards; but it cannot justify their attempt to force a similar scheme on other bodies like the Scotch universities, which have confessedly taught and examined satisfactorily as independent institutions in all departments of medical and surgical knowledge.

Professor Turner began by giving an exhaustive and detailed account of the medical school of the University of Edinburgh. His statistics as to the number of medical students (numbering, as they did, about 1300 in 1878), the very wide range of countries from which they are drawn, and the facilities enjoyed at the school for practical, scientific, and professional study, justified his contention that the interests of such an institution may be regarded as imperial. He also mentioned another very important point distinguishing Scotch from English universities in so far as medical studies are concerned: that the Scotch professors make teaching their great life-business. Moreover, a professor does not change about from one subject to another in the haphazard way characteristic of English medical schools, but devotes his whole life to the teaching of a single branch of science or practice. It is these profound differences which partly explain the admitted excellence of the teaching supplied at the three medical Scotch universities—for St. Andrews is the Durham of Scotland, and quite different from its three sister universities.

Professor Turner also explained in detail the preliminary and professional examinations to be undergone by those who wished to take the Scotch university diplomas in medicine. He explained that all candidates were examined in exactly the same subjects, those seeking only the M.B. degree having to go through the same examinations in surgery and clinical

surgery as those who wished to graduate as Master in Surgery. The institution of the latter diploma in Scotland dates only from 1860, and the purport of it was not brought out sufficiently in Mr. Turner's evidence. At the date mentioned, when the Medical Services of the Army and Navy were thrown open to competition, and the rules for other State medical appointments were adjusted, one of the regulations was to the effect that each candidate should possess both a medical and a surgical diploma or licence. This rule was obviously framed in accordance with the traditions of the London and other corporations, whose examinations and licences guaranteed proficiency in only one department of general practice. This unfortunate feature of medical qualification in the corporations therefore obliged the Scotch universities to impose upon their graduates the necessity and expense of the new diploma, "Master in Surgery," although all candidates had previously been examined in surgery and clinical surgery for the M.B. or M.D. degree.

The object of Professor Turner in bringing these details before the Committee was to show them what the Universities of Scotland were doing in their independent spheres, and that they would certainly be injured financially, and therefore in their teaching capacity, by being forced into a conjoint scheme in the way which had been proposed. He pointed out that the curriculum required by the Scotch universities was longer, the extent of subjects wider, and the standard of proficiency greater, than were required by the corporations or could be imposed by the proposed conjoint board; and that if students were compelled to pass the conjoint board they would, in many instances, be reluctant to spend the additional time and money required for graduation in the universities. The profound difference between the Scotch and English universities in respect of teaching, and the revenue derived from it and from graduation, made this consideration a matter of much greater importance to the former than to the latter, which had but little to lose by the proposed conjoint scheme. Mr. Turner, we think, might also have argued that it would be an unfortunate thing if the teaching capacities of the universities were in any way curtailed even in the interests of those candidates who are not able to qualify for the university degrees. There are, even at present, many students of the Scotch universities who can never pass their examinations, but must be content with the licences of the Scotch or English corporations; but the mere fact that these gentlemen have had the facilities of study afforded them by the Scotch universities, undoubtedly acts beneficially in many respects for all parties.

The only compromise which Mr. Turner was prepared to accept in regard to a conjoint scheme was the amendment to the Medical Bill proposed by the Duke of Buccleuch in the Lords, that the non-professorial examiners for the university examinations, or some of them, might be appointed by the conjoint board, or there might be a clinical examination conducted by the latter body. He thought that much of the agitation for medical reform was due to the fact that persons qualified in only one subject, as the licentiates of corporations, could be put on the Register and allowed to engage in general practice. If this were remedied, he thought much of the dissatisfaction with medical licences would disappear. At all events the feeling in Scotland against the conjoint scheme, in its present crude form, was universal, and he knew that opinions were beginning to change regarding it in some who had lately been its foremost advocates in England.

Professor Turner sympathised with those who urged that the profession should have a few direct representatives on the Medical Council, though he was not prepared to say what would be the best method of their selection. Everyone, we should think, will now agree with him in his opinion that

the present system of half representatives for the Scotch universities is a most unjust one in regard to their intrinsic and relative importance as teaching and examining bodies.

Comment upon the evidence of Dr. Haughton we must defer to next week.

THE DEBATE UPON THE USE OF FORCEPS.

THE Obstetrical Society of London has spent three evenings in discussing the use of forceps in lingering labour. The subject was well chosen for a debate. It is one about which there has always been much difference of opinion; and certain recent publications have made this diversity of practice and theory prominent just now. It is a subject which concerns everyone who practises midwifery, and therefore one in which the great bulk of the profession must feel a strong interest; and from the extreme frequency of the cases under discussion, it is one upon which every general practitioner of a few years' experience is competent to form an opinion. And although the differences between the results of different kinds of practice may seem slight, yet the extreme frequency of the cases makes the subject one of great moment.

The debate led many eminent obstetricians to express their views, and in this way cannot but be useful. But although much of the speaking was decidedly above the average of the Society's discussions, yet the debate cannot be said to have settled any disputed point, or added anything to our knowledge. It has, however, at least done this—it has put the different sides of the question fully and clearly before the profession.

The extremely able address by Dr. Barnes, which commenced the debate, although it opened up many questions both interesting and profitable for discussion, yet seemed to us to avoid, or miss, the point upon which the opinions of the leaders of obstetric science were really desired and expected. That question is not one of forceps *versus* ergot, or of forceps *versus* craniotomy, but of forceps *versus* nature. Granted that it is necessary to interfere, we think that there is tolerable unanimity among the profession as to the conditions which make ergot, forceps, turning, or craniotomy the preferable resort. Anyone who reads the debate will see that the advantages and drawbacks of these modes of delivery as compared with one another were hardly at all discussed. The question which seemed to agitate the mind of each speaker was this: How often, or how early, may I properly put on forceps?

Some writers and speakers, betraying thus a very imperfect knowledge of the history of their speciality, have spoken of the frequent use of forceps as if it were a *new* practice. The fact is, that it has been recommended by some, and inveighed against by others, ever since the instrument was invented. As Dr. McClintock remarked—"After the forceps was discovered, everyone thought he could use it, and a great deal of mischief was done. This led to the reaction, . . . and the forceps then fell, I believe, into an unjust contempt. Now we are emerging from that, and . . . I should hope the reaction will be kept within proper bounds." In the last sentence quoted, Dr. McClintock put the *raison d'être* of the debate. We think all will agree with the wish he expressed.

The extent to which the question has been occupying the professional mind of late is to be attributed chiefly to Dr. Playfair's work upon the Practice of Midwifery, and to the papers of Dr. Hamilton of Falkirk—writings to which Dr. Playfair, by the manner in which he quoted them in the first edition of his work, gave an importance and currency much exceeding their value; partly also to the practice of Dr. George Johnston at the Rotunda Hospital, Dublin, set forth in his

published reports. This teaching also Dr. Playfair has embodied in his book, and virtually endorsed by the approving words in which he has spoken of it, although in his remarks in the discussion he was far more cautious.

The debatable points are two. One relates to the delivery of the head when low in the pelvis, the labour being natural in all points except as to slowness; the other as to the application of the instrument when the head is high in the pelvis, without necessarily waiting for full dilatation of the os.

The first question we may summarise thus. Everyone who attends midwifery knows that he often meets with cases natural in all respects up to a certain point. The vertex presents, the pelvis is tolerably roomy, the child is alive, the labour goes on without complication, and the head descends in the pelvis; the parturient process is quite natural, only that the pains are not strong, and the head seems inclined to linger long in the pelvic cavity. This is the class of case about which one part of the controversy turns. It is pointed out that in cases of this kind the head can be delivered with the forceps in a few minutes. So far there is no disagreement. The question is, whether it is a good thing so to interfere. The more active school of obstetricians (the more meddlesome, as their opponents would call them) say that by using forceps you save the mother a good deal of pain, or rather compress her pain into a few minutes instead of letting it be spread out over a long time: that by doing this you save her strength: that you also economise the muscular power of the uterus, and therefore that organ is more capable of firm contraction after the completion of the labour, and thus the danger of post-partum hæmorrhage is lessened: also, that in the cases under discussion, if you leave them to nature, the labour may last so long that the child may die, and that you may prevent this by timely delivery with forceps:—therefore that it would be well if forceps were used much oftener than is generally customary. Dr. Playfair illustrated his view by comparing the task of the uterus in expelling the child to that of a horse dragging a cart up-hill. He said, we may either let the horse alone, or we may urge him on faster by whip and spur; or we may tack another horse on. There are two points in which the analogy fails: first, it is assumed that the horse in the shafts is unequal to his task; and next, that it is not likely that harm will ensue from the two horses pulling the cart up too fast. But great mischief may result from dragging a child into the world too quickly.

In the debate we heard some speakers say that they put on the forceps once in ten, or once in five times. Now, it is preposterous to assert that in 10 per cent. of cases of labour, when the presentation is natural and the head has descended into the pelvic cavity, danger will arise from delay if they are let alone. Such an assertion, were anyone bold enough to make it, could be refuted by the practice of numbers of lying-in charities, and the experience of accoucheurs in every class of practice. The operation, under these circumstances, is one of election, not of necessity. The operator undertakes by his own skill to improve upon a process which will in the vast majority of cases end safely if let alone. And the operation is simple in proportion as the case is natural. An expert like Dr. Playfair, using the instrument frequently, may doubtless be able to save some maternal suffering, and perhaps very occasionally a foetal life, and his skill will enable him to avoid doing harm. But one not so skilful, sent into practice with the instruction that it was a good custom to apply forceps once in ten times, might do much damage. As Dr. Graily Hewitt pointed out in a former discussion on the same subject, the advisability of the operation in these cases depends largely on the skill of the operator. The cases of this kind in which the forceps is really necessary are very few; the child will almost always

be born alive without interference. And it is not a good thing for the child to be suddenly dragged through the vulvar orifice; it is necessary that this part should have time to expand, and, if it be suddenly stretched, there is a great prospect of rupture of the perineum. Against the assertion made, that hastening delivery with forceps tends to prevent post-partum hæmorrhage, may be put the view of Dr. Roper, who said that too rapid emptying of the uterus often led to difficulty with the placenta. Neither assertion has been proved. In short, in this class of cases the operation is seldom necessary, and whether it is often advisable or not depends upon the degree of skill possessed by the operator.

We cannot leave this part of the subject without commenting on the illogical way in which figures have been used in argument upon this question, and on the worthlessness of some of the figures employed. In a former discussion, Dr. Playfair urged as a reason for a frequent use of forceps that he had had 400 cases without a still-birth, except one which was syphilitic, and therefore need not be counted; but all these cases were vertex presentations. As Dr. Roper properly said, a series of simple cases only, and a series embracing a residuum of difficult cases, are not comparable. Given, that the child is alive, the vertex presenting, the pelvis of fair size, and complications absent, the delivery of living children might be expected to go on almost *ad infinitum* with or without forceps. Dr. Hamilton, of Falkirk, says he had 731 consecutive cases without a still-birth and without a rupture of the perineum. But (and we are also indebted to Dr. Roper for pointing this out, in a former discussion upon the subject) Dr. Hamilton omits all the cases in which he imagined that the child was dead before he applied the forceps—a mode of computation by which foetal mortality may be diminished to any extent. And as to the perineum: knowing, as everyone does, how common some rupture of the perineum is, even without forceps; and finding that an observer of such known accuracy as Dr. Matthews Duncan concludes, as the result of a special investigation into the point, that some laceration of the genital orifice is invariable in primiparæ, we can only say that, until we know in what manner the perineum was examined in Dr. Hamilton's cases, and also what it is that he calls a rupture of the perineum, we shall take this statement to be worth about as much as the one concerning the foetal mortality.

We must, however, enter a protest against the depreciation of the statistical method in which some speakers indulged. Not only are statistics, in the question under consideration, of great value, but they are the only way of settling the point; because the factors of the problem are such as we can only express in an approximate, inexact way. We have no means of expressing them with precision. If we had a means of measuring the force of the uterine contractions in each case; a method of estimating the size of the foetal head and of the pelvis in any given labour, and from these and other factors measuring the amount of resistance to the progress of the foetal head, and definitely ascertaining how this resistance is caused; and a means of precisely recording the rate of progress of the foetal head, —then the indications for forceps could be expressed in a mathematical form, and statistics would be superfluous. But as we are at present nowhere near this point, our only way of accurately getting at the results of practice is by the statistical method. We know that if we take large enough numbers, such errors as are unavoidable will occur in a constant proportion on each side, and so will neutralise one another.

We shall continue our remarks upon this subject, and shall comment upon the graver question of the application of forceps above the pelvic brim, and before full dilatation of the os uteri.

THE WEEK.

TOPICS OF THE DAY.

As one of the results of the conference held by the Society of Arts, at the instigation of the Prince of Wales, on the national water-supply, it has now been decided to establish a national water-supply museum, and to further this object it is intended to hold a preliminary exhibition at the Alexandra Palace during the next few months. This decision was come to at a meeting which was held last week at Broad Sanctuary, Westminster, and as all the firms who contributed to the recent experimental exhibition at the Aquarium have expressed their readiness to continue their support to the scheme, the Exhibition Court at the Alexandra Palace has been accepted as a show place, and further contributions have been solicited. The plan of the exhibition is arranged with the following sections:— (1) The physics and chemistry of water; (2) rainfall (including tables of periodical averages); (3) catchment basins, with the apparatus for studying percolation and evaporation, current-meters, etc.; (4) geology and hydrogeology (including well-measuring apparatus); (5) waterworks and filter-beds, well-sinking and boring apparatus; (6) distribution of water, pipes, taps, household appliances, waste preventers, etc.; (7) water examination, chemical analysis, etc.; (8) filtration—cistern, table, and pocket filters; (9) hardness in connexion with washing, cooking, brewing, and tea and coffee making, soaps in connexion with washing, and the methods for testing and lessening hardness; (10) water in connexion with the spread and origination of disease; (11) antiquarian illustrations; (12) statistical tables; (13) pollution and its prevention; (14) literature; (15) artificially aerated waters and cooling appliances. No charge is to be made to exhibitors for space, and it will remain for the committee to decide which of the contributions to the exhibition shall be transferred to the permanent museum. The date of the opening of the exhibition is not yet fixed, but no time will be lost in the preliminary arrangements.

Exception appears to be unanimously taken to the proposed Charity Expenses and Accounts Bill, which contemplates the imposition of a stamp duty of 1 per cent. on the gross income of charities, as a contribution towards the expenses of the Charity Commissioners. Several meetings condemnatory of this piece of legislation have already been held, amongst which we may mention one at St. Bartholomew's Hospital, and a largely attended gathering of the permanent executive committee of the livery companies of the City of London. At the latter it was moved by the chairman, Alderman Cotton, M.P., seconded by Alderman Lawrence, and carried without opposition—"That, in the opinion of this meeting, the charge proposed to be levied upon charities is uncalled for and inexpedient, and must tend to impair their efficiency." It was also moved and carried—"That it is not expedient that the said Bill should pass into law, but that the costs of the Charity Commission, being a national institution, should be defrayed out of the Consolidated Fund as heretofore." The opposition has already extended to the provinces, and at a public meeting held at Birmingham to protest against the measure, it was resolved to send a form of petition to the different local charities for completion and presentation to Parliament.

An unexpected and somewhat severe blow has fallen on the Lower Thames Valley Drainage and Sewage Board. Before the Master of the Rolls, last week (the Attorney-General v. the Board), a motion was heard for an injunction on information to restrain the Board from applying the common fund, contributed by the several sanitary bodies which were their tributaries for the purpose of forming a united district, in defraying the expenses of a Bill in Parliament to extend the powers of the Board. It was further

asked that the individual members of the Board might be ordered to replace £500 already expended by them in Parliamentary proceedings. The Board was formed by Act of Parliament in 1877 for the purpose of making a main sewer for the constituent districts, and defraying the expenses incidental to the work. Notwithstanding protests made by some of the ratepayers, the Board had applied for Parliamentary sanction to what was described as a very ambitious and aggressive scheme contained in a Bill which had been lately thrown out. His lordship, in giving judgment, decided that the defendants could not be allowed to use the funds entrusted to them under their Act as they proposed. The members of the Board must, therefore, themselves meet the liability for the expenditure in the Parliamentary proceedings, for which they were responsible, incurred, as it had been, for a purpose unauthorised by their Act of Parliament, and those proceedings having wholly failed. The granting of the injunction asked was really a matter of course.

An exaggerated report was circulated last week as to the illness of Prince Leopold. His Royal Highness, who had been staying at Buckingham Palace, took his accustomed drive on the 17th inst., apparently in his usual health, but later in the day symptoms of a slight sprain of one of the knee-joints exhibited themselves. Although the Prince has since been confined to his room, the matter was not considered of sufficient gravity to interrupt the departure of her Majesty for Osborne, and his own private physician is the only medical man in attendance.

At a meeting of the Victoria Dwellings Association, of which Mr. John Walter, M.P., is chairman, held at Westminster Chambers last week, it was determined to erect forthwith another large range of model dwellings, in continuation of the Beaconsfield Buildings opened at King's-cross by the Home Secretary last month. Amongst other large applications for shares, it was stated that the Right Hon. W. H. Smith, First Lord of the Admiralty, had applied for no less than £10,000 worth.

The anniversary meeting of the Sanitary Institute of Great Britain was recently held in the theatre of the Royal Institution, Albemarle-street; the Duke of Northumberland presiding. The annual address was delivered by Mr. G. J. Symons, F.R.S., who took for his subject "Water Economy." During the meeting the prize medals and certificates awarded for certain inventions shown at the Stafford Exhibition were presented. The Richardsonian Gold Medal was awarded to the Silicate Paint Company, for "Griffith's Patent White," a non-poisonous substitute for white lead. On bestowing the medal the chairman remarked that this was one of the most beneficial discoveries ever made, since it prevented the dreadful sufferings caused by the use of lead paints. In the evening the anniversary dinner was held at the Grosvenor Restaurant, Dr. B. W. Richardson in the chair, and in proposing the toast of "Success to the Sanitary Institute of Great Britain," this gentleman said they were about to supplement the examinational system of the Institute by an educational system; they trusted soon to have a sanitary school dealing with all the subjects of which the Institute sought to encourage the study.

Dr. Edwin Hearne has addressed a letter to the *Southampton Times* and *Hampshire Express* on the subject of the proposed Irish University Bill, which he thinks must ever be regarded as an egregious blunder. The space at our disposal does not admit of our giving this gentleman's letter in full, but it will be sufficient to remark that his views on the subject are very similar to those already expressed by us, especially on the point that if restrictions obtain in regard to medical degrees, the University is in a very special sense restricted,

and cannot possibly be said to answer the description given of it by Lord Cairns.

The town of Carlisle appears still to be in a very unsatisfactory condition as regards its sanitary arrangements. If we are to credit local reports the outbreak of typhus and typhoid fever in 1874 alarmed the Local Board, who then expressed their willingness to carry out such of the more urgent of the recommendations of the Local Government Board Inspector, Mr. Power, as were reasonably practicable; but with a cleaner bill of health these good intentions would seem to have evaporated, and only recently their able Medical Officer of Health, Dr. Robert Elliot, had to remind the authorities that the schemes for sewer improvement, etc., had practically dropped through. From a report now furnished by the Inspector of Nuisances, it seems that danger is to be anticipated from some of the sewers of the town which are never flushed; and at a meeting of the Local Board the Mayor explained that the Board had no control over these particular sewers. The sooner such an anomalous state of things is swept away, the better for the health of the district. It is contrary to public policy that any sewers in a town should be under private control, and the Carlisle Urban Sanitary Authority should rectify such a glaring error at once.

According to the report read at the recently held quarterly General Court of the Governors of the *Dreadnought* Seamen's Hospital, Greenwich, 390 seamen of various nationalities have been admitted as in-patients during the past quarter. On June 13 the Swedish and Norwegian Governments informed the Committee, through the Consul-General in London, that, by a resolution of the Seamen's Society of Podsggrund and neighbouring places, all vessels trading to London and other ports in Great Britain had consented to pay a fixed voluntary fee of 1s. per 100 tons to the *Dreadnought* Hospital. It was hoped that other Powers, and especially Germany and Russia—the former of which receives great assistance from the *Dreadnought*—would reciprocate the aid rendered by instituting similar collections on board their vessels through their Consul-Generals in London.

It is announced that the Metropolitan Hospital Sunday Fund has realised a sum of £25,200. This is about £400 in excess of what was collected last year, and must be considered very satisfactory when the present condition of trade is taken into account. It is expected that the Distribution Committee will shortly meet to appropriate the money.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following is the report from the Board and the Court of Examiners of the number of candidates who have presented themselves for the primary and pass examinations for the diploma of Member of the College during the collegiate year 1878-79, showing the number who have passed and have been rejected from each medical school during that period:—

Primary Examinations.

Medical School.	Totals.	Number passed.	Number rejected.
St. Bartholomew's	116·3	80·83	35·50
Guy's	94	77	17
University College	90·3	46·83	43·50
St. Thomas's	40	28·50	11·50
St. Mary's	39·50	24	15·50
London	39	31·50	7·50
King's College	35·50	23·50	12
St. George's	35	24	11
Charing Cross	26·50	17·50	9
Westminster	13	10	3
Middlesex	12·50	9	3·50
Manchester	40	20·50	19·50
Leeds	28	16	12
Birmingham	25·50	21·50	4
Liverpool	17·83	14·83	3
Cambridge	16	12·50	3·50

Medical School.	Totals.	Number passed.	Number rejected.
Bristol	13.50	7.50	6
Sheffield	10.50	7.50	3
Newcastle-on-Tyne	10	6	4
Dublin	8	4.50	3.50
Belfast	4	4	—
Cork	3.50	2.50	1
Galway	1	—	1
Edinburgh	32.50	21.50	11
Glasgow	10.50	8.50	2
Aberdeen	5.50	3	2.50
Toronto	4.50	2.50	2
Montreal	2.50	—	2.50
New York	2	—	2
Columbia	1	1	—
Bombay	2	1	1
Calcutta	1.50	—	1.50
Bengal	1	1	—
Madras . . . . .	.50	.50	—
Berlin	1	1	—
Melbourne	1	—	1
Totals	785	530	255

Pass Examinations.

Medical School.	Totals.	Number passed.	Number rejected.
Guy's	73	46	27
St. Bartholomew's	64.50	49.50	15
University College	62.83	40.33	22.50
St. Thomas's	46.58	35.83	10.75
St. George's	29.50	21.50	8
King's College	23.50	14.50	9
Middlesex	23.50	14.50	9
London	21	13.50	7.70
Charing Cross	14	9	5
St. Mary's	9.50	7	2.50
Westminster	5.25	4	1.25
Manchester	30	14	16
Birmingham	20	16.50	3.50
Leeds	12.50	9	3.50
Liverpool	11.91	5.6	6.25
Newcastle-on-Tyne	10	7	3
Bristol	8.50	7	1.50
Cambridge	5	3	2
Sheffield	4.3	2.3	2
Dublin	5.75	4.50	1.25
Belfast . . . . .	.50	.50	—
Galway . . . . .	.50	.50	—
Edinburgh	17.3	11.83	5.50
Glasgow	2.50	1	1.50
Aberdeen	2	2	—
Toronto	2.50	2.50	—
Bombay	1	1	—
Madras	1	.50	.50
Calcutta . . . . .	.50	.50	—
Totals	509	345	164

Note.—In the above list, candidates who are indicated by a fraction have received their education at more than one school of medicine.

THE WIMBLEDON CAMP.

WE have had most unfortunately this year to deplore more than one failure of projects which originally promised a much happier issue. The Wimbledon meeting is perhaps not yet in that same unfortunate category, but it cannot be doubted that much of the pleasure associated with these meetings has been taken away by the dreadful weather we have recently encountered. Nevertheless, even the pouring wet may not be without its uses, for it may direct attention more forcibly to certain features of volunteer camp life which, as we hold, are not unworthy of consideration. Those who have inspected the camp, even in the most cursory manner, could not fail to note the terribly sloppy condition of the whole place. Yet the ground is supposed to be well drained. Those who visit the ground when there is no camp find it still worse. For when there are volunteers on the ground

there is always some one who is supposed to know where the drains lie; but when the whole place is an open common you must take your chance of ground drained and undrained, which, considering the amount of money spent on the place, should not be the case. But this is only the beginning of our complaint, though it is its foundation. We all know something of the value of the lives of men such as those who constitute the bulk of the temporary inhabitants of the Wimbledon-common. And the question is this—Should these men be exposed to such risks as they run when in camp there? When a soldier goes on active service he knows that this is done for a certain purpose. He has been trained to those habits which enable men to support existence under such terms with tolerable comfort. But with many civilians it is different. Men cannot be drafted straight from an occupation which necessitates an indoor life to a life under canvas—the tents being under a continual downpour of rain—with impunity. We may read with pride, but not with pleasure, of a corps of artists exposing themselves, during their planned manœuvres, to the bitter rain. Such men would do their duty at another Thermopylæ; but are they doing their duty under such conditions of things as exist at Wimbledon? Fair-weather soldiers, as fair-weather sailors, have an ugly name; but is it for the interest of wives and families that these men should be exposed to what may utterly mar their prospects in life, and entail uncalled-for suffering? The register of disease and accident in the camp is no true index of the sorrow and suffering which may thereby arise. Men seriously affected seldom linger long there, but promptly make for their homes. And of all the complaints encountered in the camp, the most insidious is the most dangerous. Rheumatism, slight though it may be, often and unsuspectingly lays the foundation of future disease. To men suffering from heart disease almost invariably the first question put by the physician is, "Have you ever had rheumatism or rheumatic fever?" What has Wimbledon to say to such evil mishaps?

WHAT THEY SAY OF THE PROPOSED UNIVERSITY.

WE elsewhere publish a letter from a Liverpool medical teacher which may serve to open the eyes of those in favour of making Owens College a university. It is to the effect that no one shall graduate there who has not also resided. Put the question "*Cui bono?*" as regards the new university,—there is but one answer: The Owens College professors.

MEDICAL PARLIAMENTARY AFFAIRS.

The Sale of Food and Drugs Act Amendment Bill.—In the House of Lords, on Thursday, July 10, this Bill was read a second time. It passed through committee on Monday, July 14, and was read a third time and passed on Tuesday.

Cruelty to Animals Bill.—Lord Truro, in moving the second reading of this Bill, said its object was to extend the provisions of Martin's Act, which applied only to domestic animals, and to prohibit painful experiments known by the name of vivisection. If the Bill passed, it would be unlawful to perform any experiment causing pain to animals except for the purpose of curing disease from which the animals themselves might be suffering. Those whom he represented objected to vivisection altogether, because it was impossible by any system of licence or restriction to secure the animals from torture. Earl Beauchamp moved that the Bill be read a second time that day three months. Sir James Paget had been sneered at for saying that in fifty years a remedy might be discovered for snake-bites. In India 20,000 of their fellow-subjects died every year from snake-bite, and did they not also deserve consideration? Within the last thirty years the whole question had been changed by the discovery of anæsthetics, and a knowledge of the use of anæsthetics had been gained because in the first instance they had been tested on animals themselves. In the report of the Royal Commission there was

a list of valuable discoveries in the way of alleviating and relieving human suffering which had been made by the practice of vivisection. He denied the right of societies from whom petitions in favour of the Bill had emanated to arrogate to themselves any monopoly of sympathy with the sufferings of the lower animals. Vivisection had done much for the relief of human suffering. The Bishop of Peterborough said the question was whether vivisection was necessary for prolonging human life. Animal food prolonged human life, and they killed an animal for procuring the latter, and another for curing disease. The latter was more justifiable than the former, because human life could be sustained without animal food. All necessary restrictions being secured, he deprecated the total abolition of vivisection. Viscount Cardwell, as chairman of the Royal Commission which investigated this subject, and which presented an unanimous report, said that he believed the example which this country had given in placing experiments of this kind under regulations would be followed by the whole civilised world. He thought that the existing Act had been most satisfactorily administered. Lord Aberdare said that he was President of the Society for the Prevention of Cruelty to Animals, and that Society had never advocated the total abolition of vivisection. One of the effects of this Bill in its present form would be to prevent vaccination. The Bill was rejected by a majority of eighty-one.

Public Health Act (1875) Amendment (Interments) Bill.—This Bill was read a third time and passed.

Canal Boats Act.—Mr. Selater-Booth, in reply to Mr. Price, said that out of ninety-nine districts the registration of boats on canals had been effected in two-thirds; 5000 boats, with accommodation for 22,000 persons, had been registered.

SANITAS.

SOME eighteen months ago we referred to a subject which is always open and is moreover always of interest to all. We then directed attention to the alleged properties of a new disinfectant and deodoriser. This was called by a new name—Sanitas—which, though not quite clear as to the origin of the preparation, possessed at least the simplicity of indicating its purpose without introducing impossible Greek roots. Well, the substance has now been fairly tested by that experience which teaches all things, and we have heard no dissentient voice in the matter. A gathering was held on Friday last week of those directly or indirectly interested in the subject, at the Company's works. Especially it was meant that this was to be a kind of demonstration of the principles applied to the manufacture of the material in its perfected state. Briefly, the plan is this:—Russian turpentine and water are placed in enormous jars of Doulton earthenware surrounded by hot water. For a space of three hundred hours air is driven through this mixture, and the result is that the subject to be acted upon—namely, the turpentine—is materially altered in constitution and characteristics. Some of the products go into the water, others remain in the remains of the turpentine. The watery solution is what is called "Sanitas." The terebinthine portion is used for different purposes. With the latter soaps of various kinds are made, and especially a powder is manufactured of it made in conjunction with lime slaked with the so-called "Sanitas." All of these have been spoken of in the highest terms, the special claim being that "Sanitas" is, as we in a previous notice said, "an antiseptic and a disinfectant." It is an antiseptic from its relation to the carbolic acid class, and a disinfectant from the ozone or rather antiozone point of view. Be this as it may, many strong recommendations have come to us, both of the watery solution and the various preparations made from the derelict turpentine.

A foreign gentleman was enthusiastic on "Sanitas." He said that if used as a mouth-wash it took away the smell of onions, garlic, *et id genus omne*. If that be true, then many unhappy lovers of steak and onions, to say nothing of those who love a "point d'ail," will say, "Eureka!"

THE SELECT COMMITTEE ON THE MEDICAL ACT AMENDMENT BILL.

THE Committee resumed their inquiry on Friday last, at twelve o'clock; the Right Hon. W. E. Forster in the chair.

Professor TURNER, examined by the Chairman, said: I am Professor of Anatomy and Dean of the Faculty of Medicine in the University of Edinburgh. I took my degree at the London University. I have been a member of the Medical Council for six years, representing the Universities of Edinburgh and Aberdeen. In the year 1876 there were 1070 students of medicine in the Edinburgh University; in 1877, 1169; in 1878, 1290. The increase has been steady for the last eight or ten years. The curriculum is four years, and the number of fresh entries each year is from 250 to 300. Of the 1290 in 1878, 565 were born in Scotland, 445 in England and Wales, 22 in Ireland, 75 in India, 149 in British colonies, and 34 in foreign countries. The school is one of the largest in the world, not even excepting the University of Vienna. From the wide range from which it draws its students its interests may be said to be imperial. The school originated in 1720. I have an analysis of the students in the anatomy class in 1780 and 1790, when the Professor of Anatomy was Dr. Alexander Munro, one of the most renowned anatomical teachers in Europe. In 1780 the number of Scotch students in Munro's class was 235, of English students 53, Irish 48, American 3, foreigners 3, making a total of 342. In 1790 the attendance was, Scots 262, English 73, Irish 61, Americans 26, foreigners 12, making a total attendance of 434. The University of Edinburgh was one of the first in the kingdom to give anything like a complete medical training according to the ideas of the time. In 1876 there were 88 bachelors of medicine; in 1877, 103; in 1878, 117—making a total of 313 in three years. The analysis of that number is as follows: 141 natives of Scotland, 106 natives of England and Wales, 2 natives of Ireland, 24 natives of India, 31 natives of the various colonies, and 9 foreigners. The doctors of medicine for the same period were—in 1876, 19; in 1877, 34; in 1878, 30. No one could become a doctor unless he had previously graduated as a bachelor. We have three degrees—bachelor of medicine, master in surgery, and doctor of medicine. The degree of master in surgery is conferred along with that of bachelor of medicine, and something like 95 per cent. of the bachelors take it. I have had an analysis made of the Edinburgh graduates whose names are recorded in Churchill's "Directory." There appeared to be the names of 2319 such graduates. Of these, 572 are in practice in Scotland, 274 in London, 857 in the English provinces, 108 in Ireland. The list of practitioners in the public services and in the mercantile marine shows that 256 are Edinburgh graduates. The list of practitioners abroad, which is of course imperfect, gives 252 Edinburgh graduates. In 1877 I find that, of the 34 doctors of medicine made that year 16 had other qualifications, and of the 108 bachelors 24 had other qualifications. The greater number of such other qualifications are taken after our degree. One main reason for that is that there are a great many appointments throughout the country, such as physicians and surgeons in public hospitals and dispensaries, which can only be held by those who have either the membership or fellowship of a college of physicians or a college of surgeons. The reputation which our school has, and the fact that our graduates are scattered all over the world, account for our having students from so many different countries. I could not assent to the explanation that it is any laxity of our examinations that brings them. The medical professors in the University regard teaching as their primary occupation. With us teaching is a business, and I believe that is one great reason of our success. We have libraries and museums organised on what we consider the very best methods. We have also a large and valuable library, enabling our students to obtain access to a complete range of scientific literature. We have developed a very complete system of practical teaching, not merely in connexion with hospital education, but also with regard to the teaching of the sciences on which a knowledge of practical medicine is based. For instance, there are a large anatomical school, a large chemical laboratory, an important department for teaching botany through the aid of the botanical gardens, and a school of practical natural history and zoology. Physiology, pathology, and pharmacy

are also taught practically. In our hospital instruction our students are drilled in the methods of physical diagnosis, and in the use of the microscope, in examining various secretions, etc. Very precise instruction is given in the principles of operative surgery, bandaging, etc. In the preparation of my evidence I thought that the best mode of showing the Committee that we ought to be let alone in this matter was to submit to them precise information as to our methods of education, the course of study we require from our candidates, and the character of our examinations. The Scottish University Commissioners under the Act of 1858 instituted certain regulations with regard to the preliminary examination which candidates for degrees at all the universities in Scotland must pass before they can be admitted to a professional examination for their degrees. The preliminary branches of extra-professional education are English, Latin, arithmetic, the elements of mathematics, and the elements of mechanics; and the proficiency of students in these branches is ascertained by examination prior to the commencement of their medical studies. No candidate is admitted to a professional examination who has not passed a satisfactory examination on at least two of the following subjects, in addition to the foregoing—Greek, French, German, higher mathematics, natural philosophy, logic, moral philosophy. At the first professional examination, candidates have some little latitude allowed in this way, that they may appear for that examination, after two summers and one winter of medical study, or two winters and one summer. That is in order to meet the different periods at which students enter. That examination is in botany, chemistry, and zoology with comparative anatomy. The subjects of the second professional examination are anatomy, physiology, pathology and morbid anatomy, materia medica and pharmacy. That examination takes place at the end of the third winter of professional study. The final examination, which takes place in the last summer of medical study, includes medicine, surgery, midwifery and the diseases of women, forensic medicine and public health, clinical medicine, and clinical surgery. All our candidates go through exactly the same examination.

The CHAIRMAN: Then what is the meaning of "master in surgery"?

Mr. TURNER: Those who get the degree of bachelor of medicine can have the degree of master of surgery if they choose. They have not to submit to another examination, but some do not take the degree because they would have to pay five guineas.

The CHAIRMAN: Now give us the proportion of rejections for the last three years.

Mr. TURNER: I have taken the years 1876, 1877, 1878. During those years, 756 candidates presented themselves for the first bachelor of medicine examination, 248 were rejected. During the same period, 518 were examined for the second bachelor of medicine examination, and 178 were rejected. For the final, 364 were examined and 51 rejected. There is no restriction as to the number of times a rejected candidate may come up again, but when a student is rejected a second time he thinks a little before he appears a third time. The first rejection is only considered as a disagreeable occurrence. The degree of doctor of medicine may be conferred on any candidate who has obtained an M.B. degree, is of the age of twenty-four, and produces a certificate of having been engaged subsequently to getting his M.B. for at least two years in attendance at a hospital, as a naval or military surgeon, or in medical or surgical practice, provided always that he is a graduate in arts of one of the universities of the United Kingdom, or of one of certain other specified universities. In the absence of an arts degree he must have passed a satisfactory examination in Greek, and in either moral philosophy, French, German, or higher mathematics. Every candidate for the doctorate must also write a thesis on any branch of knowledge comprised in the professional examinations for M.B., or on some other subject connected with his professional practice. If he passes in Greek, or logic, or moral philosophy at his preliminary examination, he is not taken back to those subjects. The rejections amount to 11½ per cent. No right is conferred upon the bachelor to call himself doctor, but undoubtedly it is the custom to do so. The degree of bachelor of medicine is in Scotland a new one. It was first established after the Scottish Universities Act of 1858. In England it is an old and well-recognised degree conferred by the Universities

of Oxford and Cambridge, and I believe it is the custom for their bachelors to call themselves doctors. No one can become a bachelor of medicine at Edinburgh under the age of twenty-one. Prior to the Scottish Universities Act of 1858, the professors in the universities were the sole examiners, but the University Commissioners associated with them three gentlemen who had the official title of assessors. It was found by experience that that did not give the kind of strength to the examining board which was desired, and the Medical Faculty and the Senatus applied to the Privy Council to have the examining board extended, so that now it consists of twelve professors and thirteen non-professors. This gives two examiners in each subject, one being a professor and one a non-professor. We have no power to alter any one of our regulations without the sanction of the Privy Council. The Scotch universities are not corporations, each at liberty to fix the private tests on which its licences shall be granted, as was stated by Mr. Simon in his memorandum of March 31, 1872. The average age of medical undergraduates is higher than of the arts undergraduates. We require four years of study at a recognised medical school, and at least one of those years must be spent at the university. Under the English conjoint scheme only three years need be spent at the medical school; the remaining year may be spent as a pupil with a private practitioner, or at a hospital. Of the 108 graduates in 1877, there were only twenty who had limited themselves to four years' study, thirty-five had taken four years and a half, twenty-nine had taken five years, and twenty-four more than five years. Those who graduate after only four years may be said to be the clever fellows. I have no doubt that our M.B. examination is higher than could be required as a condition of a licence for general practitioners. I have had twenty-five years' experience as a teacher, and was for five years examiner in anatomy at the University of London.

The CHAIRMAN: Do you think it would be safe for the Legislature to take a lower general standard than you have at Edinburgh?

Mr. TURNER: Unless you do take a lower standard I think you will not be able to get the number of practitioners that the public require. Our examinations are higher than those required for popular practice, or under the conjoint scheme, because, first, they are based on a more extended system of education—scientific, practical, and clinical; secondly, they embrace a wider range of subjects taught; thirdly, they require a more complete scientific training, and familiarity with, and power of applying, the modes of scientific thought and inquiry than is needed for ordinary practice. For this reason Edinburgh graduates and students have always taken a prominent place as original inquirers in medical science, and as teachers in medical schools.

The CHAIRMAN: To what subjects is more attention paid in your course than in the course recommended under the conjoint scheme?

Mr. TURNER: We require not only an examination in chemistry, but a specific examination in botany, in zoology, and in comparative anatomy. The examinations in chemistry, zoology, with comparative anatomy and botany, are the same as those which the science graduates have to pass.

The CHAIRMAN: Might there not be an idea that for practical, rough work your education is too theoretical?

Mr. TURNER: That I cannot admit, because the excellence of our degree is not based merely on the scientific training, but on the training throughout, practical and clinical. I believe our students walk the hospitals as much as the students in the London schools. Then we require specific education and examination in pathology and morbid anatomy. The conjoint scheme does not do so. It merely throws in pathology along with medicine and surgery. In a similar manner, we require education and examination in forensic medicine and public health. The conjoint scheme throws them in with other subjects. I think you will find that the visitors reported that our examinations were satisfactory. The non-professorial element in our examinations consists of just those persons who would be introduced on the board if a conjoint board scheme were established—namely, experts in the particular subjects who are not members of the teaching body—Fellows of the College of Physicians and the College of Surgeons; so that in our system we have all that is required under Clause 3 of the Government Bill. I object to the condition that our graduates must have a certificate from the conjoint board before being placed on the Medical Register. At present

our degree confers all the rights to practise; therefore our graduates, who have already gone through a higher examination, would be subjected to an additional examination, which I hold to be unnecessary. They would also be required to pay an additional fee, so that they would be taxed pecuniarily. Clause 5 gives a premium to those who have passed the conjoint board to associate themselves with a corporation in preference to a university. They can at once obtain a qualification from a corporation, and so be placed on the Register, but no university having a proper estimate of the value of its degree could accept the examination of a conjoint board as equivalent to its own examination; neither, under Clause 19 of the Bill, could it get any proportion of the surplus funds. Our fees are twenty guineas, and the fee under the English conjoint board scheme would be thirty guineas.

The CHAIRMAN: Will you give us a little more reason why you do not rely upon the character which your high examination has in the profession to make you suppose that you would still get your students, although they would have to pay that additional fee of twenty guineas?

Mr. TURNER: We have to deal with students, many of whom are but poorly supplied with funds. Probably this applies even more to the Universities of Glasgow and of Aberdeen, but we draw a considerable proportion of our students from a class of the community that has only limited means. The University of Edinburgh would be extremely unwilling to change its system in the way of diminishing the stringency of the examinations or the completeness of its mode of teaching. Although it does not appear in the Government Bill, yet I believe that those who advocate the conjoint scheme desire that no university should be allowed to confer its degree unless the candidates had previously passed the examination of the conjoint board. That examination had for its object the placing of practitioners on the British Medical Register, and therefore, if the proposed scheme were carried out, our foreign and colonial graduates who have no intention of practising in this country would have to go through an examination, and pay a fee which had no reference to the countries in which they were going to practise.

The CHAIRMAN: Do not you think that there is some danger of injury to the profession generally from the number of portals? and if so, why is not the University of Edinburgh ready to make a sacrifice in the same way as the College of Surgeons?

Mr. TURNER: There is nothing in this Bill to affect the interests of the College of Surgeons in London as it would affect the interests of the Scotch universities. Under the English conjoint scheme, which has been voluntarily entered into by the English College of Surgeons, there is ample provision, in a division of the proceeds of the scheme, for keeping up all that the College of Surgeons thinks necessary, and in Clause 19 of the Bill there is a specific provision that the surplus funds shall be divided amongst the corporations, and not amongst the universities, and the candidates who pass the conjoint board can obtain the qualification of a corporation without paying any additional fee. The University of Edinburgh accepts no professional examination from another body, but I believe that the College of Surgeons and the College of Physicians accept our early examinations, but not our final examinations—that is to say, in chemistry, anatomy and physiology, and pharmacy, but not in medicine, surgery, and midwifery. We hold that the examinations in the College of Physicians and the College of Surgeons in Scotland are lower than those of the universities.

The CHAIRMAN: Do not you consider that you to some extent suffer by practitioners being able to obtain their degree upon lower terms than you would give it them?

Mr. TURNER: I should not say that we suffer, always supposing that the examinations conducted by those bodies are efficient for ordinary general practice.

The CHAIRMAN: Have you been in any way influenced to keep down your standard in the University by the fact that there are lower examinations?

Mr. TURNER: Most certainly not. I am aware that the object of the conjoint board is to get as high a minimum as the state of education will permit, and it is certainly a good object that there should be no examination that is not efficient. I regard efficiency as the great thing to be striven for, and not mere uniformity. The proposal I have to make is that which was made by the Duke of Buccleuch to the House of Lords when the Bill was going through that House.

It was an amendment to Clause 15 of the Government Bill. It would work in this way, that our non-professorial examiners would be appointed by the conjoint board, or at least one half, or there might be a clinical examination by the conjoint board. I think the University of Edinburgh ought to have a separate representative on the General Medical Council. It so happens that up to this present time Edinburgh University has never been without a member of its own body on the Medical Council, because when the University of Aberdeen returned our joint representative, a member of the University of Edinburgh was appointed by the Crown as the Crown representative for Scotland.

The CHAIRMAN: Considering the position the University of Edinburgh occupies, and the fact that it is peculiarly successful in scientific representatives, is it not unlikely that there will not at any time be gentlemen on the Council connected with that University independent of its having a representative?

Mr. TURNER: There are now several graduates of the University on the Council, but I consider that the representation is through the teaching body, and my impression is that at present there is no one on the Council who has ever had anything to do with the teaching at the University except myself.

By Mr. ERRINGTON: Under the uni-portal system in Germany students had to go to Berlin for examination, and it was found quite impossible to get good examiners without taking the University professors. The system, however, caused great dissatisfaction, and in 1869 considerable reforms were made. The present *Staats Examen* is really a multi-portal system. Every university in the German Empire now examines, and as there are twenty universities it is a twenty-portal system; and the teachers examine their own pupils. After trying the uni-portal system for some years, Germany has deliberately given it up as a failure. There has been no agitation for reform in Scotland. One reason for the agitation in England is a defect in the Medical Act, by which a single qualification enables a man to be put on the Register. If it were enacted that no one should go on the Register until he had a double qualification, I believe a great deal of the agitation would disappear. The feeling in Scotland against the conjoint scheme is universal. I am told that there has been a considerable change in the same direction in England, and I know those who formerly held strong opinions with regard to the conjoint scheme, but who are now only lukewarm supporters of it. Under the English conjoint scheme five guineas out of the thirty go to the Museum of the College of Surgeons. If that museum is a national institution, it should be maintained out of the national purse. As regards direct representation, I quite sympathise with those who feel that there should be a representative of the general practitioners on the General Medical Council in some form or other, but whether the best means of getting that representation is by a general vote of the profession is a matter that I can scarcely give a definite opinion upon. Representation of the profession would, in my opinion, tend to make the Council in sympathy and harmony with the profession.

By Dr. LUSH: In Scotland we have tried to frame a conjoint scheme, but after various attempts we at last came to a resolution that we did not see our way to it. There is a profound difference between the universities of Scotland and the universities of England as teaching bodies. The visitations of examinations are, in my opinion, of great importance, and if it had not been for prospective medical legislation, I think the Council would have carried out visitations systematically, selecting a certain number of bodies to be visited each year. In its general constitution I think the Medical Council is a very excellent body. It should be remembered that the powers of the Council are only recommendatory; and, taking that view, I think it has done a great and efficient work. The whole of the system of preliminary education has been adopted and carried out through the recommendations of the Council.

By Mr. MAITLAND: The medical authorities in Scotland largely represent the profession, and therefore I think we may say that the profession in that country has pronounced against the conjoint scheme. The general standard of medical education would be lowered if anything were enacted which would add to the trouble and expense of obtaining university degrees.

In reply to Mr. WHEELHOUSE, witness said the Scotch university examinations were more critical and close than

those of the English corporations, and were on a level with those of the English universities.

The Committee adjourned till Tuesday.

On Tuesday, July 22, the Committee sat again.

The Rev. SAMUEL HAUGHTON was the first witness examined to-day, and in answer to Mr. Plunket said:—I am an M.D. of Dublin University, D.C.L. of Oxford University, Fellow of Trinity College, Dublin, Fellow of the Royal Society, and a member of the Medical Council representing the University of Dublin. For fifteen years I have acted as Medical Registrar of the University of Dublin, and as such have had the entire charge and responsibility of the conduct of their large medical school, of its laboratories and examinations, and have thus had an opportunity of becoming intimately acquainted with the highest class of medical education. The governing body of the University of Dublin consisted of two bodies, called the Board and the Council. The Provost and the Senior Fellows formed the Board, they being the executive body, attaining their position by seniority. The Council was a constituted body and elected, and he was a member of the Council. The medical school of the University of Dublin was created by an Act of Parliament, called the School of Physic Act (34th Geo. III.), and was under the joint government of the University of Dublin and the College of Physicians. That dual government had worked well for 100 years. The Court of Examiners for medical degrees was constituted precisely like that of Edinburgh, the candidate having two examiners on the same subject—one a professor, and the other a non-professor,—and those two elements checked each other. The non-professors were recommended each December. Three names on each subject were sent up to the Board by the professors at large, and the Board selected one name out of the three on each subject. The selected person continued examiner for twelve months, and might be re-elected, but as a rule he did not hold office more than two or three years. With reference to the appliances and means of teaching, the University had borne the chief share of the expense of furnishing those, and they had everything necessary to form a complete school of medicine and surgery. They had three chemical laboratories; a large dissecting-room, modelled on the best plan; a large histological laboratory; an anatomical and geological museum; a pathological museum of great value; and large botanical gardens. With reference to the past history of the medical school, in the first year of the present century, under the celebrated Professor McCartney, they had 300 students. When McCartney retired the number gradually fell to thirty, but they then turned their attention seriously to the subject, and within the past fifteen years they had restored it again to 300 students, but with this remarkable difference, that whereas in the old times a large number of the students were English and only 10 per cent. were students in arts, in their present condition nearly all the students were art students as well as medical. The special object aimed at by the University of Dublin was the education of the higher classes of the medical profession, and they were the only university in the United Kingdom having a large medical school which required all graduates in medicine to be graduates in arts before they received their medical degree. One reason for that was the tendency of their students to go into the Army Service, and it was found that their social position at the mess-table depended a good deal on the art qualification. Dr. Haughton then handed in a table showing the number of students matriculated in medicine for the last fifteen years, giving an average of 70 per annum; also a table showing the number of what he might call primary qualifications in medicine or surgery, the reception of which entitled a man to put his name on the Register; and a further table showing the number of higher degrees. Their licence in medicine and their degree in medicine were identical as far as professional qualification went, the only difference being that in the case of their licence in medicine two years in arts were required, while for the degree four years in arts were required. During fifteen years they had conferred forty-four licences of medicine, and 539 bachelors of medicine—that was to say, one out of every fourteen students did not complete his arts degree, but completed two years' full curriculum in arts. The licentiate of medicine might come in and take higher degrees if he liked. The licentiate's qualification was much higher than that recommended by the Medical Council. Out of fifty-one

taking the primary qualifications about twenty-nine would afterwards take the higher degree. The Dublin University had been very forward in improving medical education, it being the first university in Ireland which recognised the modern position of surgery by conferring degrees on that branch, and they were still the only university which conferred degrees in obstetric science. They were also the first medical authority in Ireland which required examination in anatomy on the dead subject for degrees in surgery, and the first to institute clinical examinations for degrees in medicine, surgery, and midwifery. They were also the first university to hold examinations and confer diplomas for State medicine. Their diploma for State medicine was never conferred upon anybody unless he held a degree in surgery, and then only after a long examination on a great variety of subjects bearing upon sanitary science. They had only conferred thirteen of them in all. The medical school was only a small proportion of the work of the University, for out of a total of 1300 art students only 300 were medical students. The University of Dublin was in favour of any scheme that would secure uniformity of standard in a minimum qualification at which it was safe to allow a man to practise on the public. It approved of the conjoint scheme proposed by the Lord President's original Bill of this year. He himself believed that that scheme would lead to less practical inconvenience than Lord Emly's amendment to it, which had been adopted by the Lord President. For the Medical Council to prepare a conjoint scheme for each part of the United Kingdom was very much like the process of Englishmen making boots to put on Irish and Scotch feet: Irish and Scotch feet having so many corns on them, he thought they could make their own boots with less likelihood of getting their corns pinched. The Committee might take the fact of the establishment of an examining board for the Army and Navy as a proof that the various medical qualifications varied considerably. A variety of causes had combined to raise the standard of all licensing bodies, the principal cause having been the general progress of enlightenment, though perhaps public opinion had had something to do with it. Every student would flow to the easiest examination, as water found its level. While the chief aim of the Dublin University was to educate the higher classes of the medical profession, still they deemed it their duty to join in any scheme such as the conjoint scheme, which they believed to be clearly for the advantage of the public. If the universities remained out of the conjoint scheme it would not reach such a high standard, but it would be rather a trades union examination. One of the advantages of the conjoint scheme over the present system would be to reduce the examinations in medicine, surgery, and midwifery from three to one. He felt that at present students were too much harassed by examinations. University students should not be examined on scientific subjects by the Conjoint Board, but the conjoint examination should be confined to a clinical examination in surgery, medicine, and midwifery. He agreed with Professor Turner in objecting to the introduction of forensic medicine. He saw no difficulty whatever in constructing a conjoint scheme to give effect to his views, provided it were made compulsory; but if they were left to themselves they should never agree. The Dublin University would not confer their degrees on students if they were qualified in arts after they had passed the conjoint examination, as they considered their degrees to be a higher qualification than the certificate of the Conjoint Board would be. He thought that Clause 5 of the Bill requiring all medical practitioners to affiliate themselves to some medical body was exceedingly important. Of course very glaring offences would take care of themselves, but minor offences were dealt with very effectively by the members of the corporations. As a member of the College of Physicians of Ireland he had taken part in remonstrating with people guilty of such offences as advertising, and so on; and, supposing the offender took no notice of the remonstrances, they had a very efficient weapon for punishing him, because the Fellows of the College were prohibited from meeting him in consultation. He objected to the provision in the clause, "that if the Association refused to affiliate applicants they should go on the Register without." Of course that referred to women. The University of Dublin were in favour of direct representation of the profession on the Council in addition to the interests already represented thereon, inasmuch as they believed that direct representation would strengthen the influence of the

Council with the profession. They expressed no opinion upon it in the abstract. His own individual opinion was in favour of it. With regard to any further change in the constitution of the Council, he thought it was a matter that ought to be seriously considered as to whether the medical schools not connected with corporations or universities should not have some representation. The effect of that would be to bring to the knowledge of the Council the most recent and approved methods of teaching medical science. The statement of Sir Dominic Corrigan, that a medical qualification was very easily obtained from the University of Dublin, he thought he had sufficiently explained; and he also desired to give the most unqualified contradiction to the statement that any student on the payment of 5s. could be immediately registered. No student had ever been admitted to complete his studies unless, in addition to the payment of 5s., he passed an examination accepted by the Medical Council. With regard to the statement that certificates of attendance at lectures were of no value except as mere receipts for money, he was sorry to say that the practice of carelessly signing certificates did exist in some schools, but in the University of Dublin their register was kept most accurately, and they had the power of ascertaining the exact number of lectures each student attended. With regard to the opinion expressed by Sir Dominic Corrigan, that a certificate of any curriculum was a mere farce, he thought the necessary corollary was that the payment of the fee for a certificate was a farce too. He did not think that a large number of rejected candidates necessarily proved the high standard of the examination. The severity of the examination was one factor; the imperfect teaching of the candidates might be another; and the *rapprochement* between the teachers and the examination might be a third. There ought to be a sufficient knowledge of the examination, so that not more than 10 per cent. should be stopped.

By Mr. MITCHELL HENRY: There were altogether about 1000 medical students in Dublin, and about 800 on an average dissecting. There were five extra-academical schools in Dublin. With regard to the difficulty of getting the whole of the representatives of the licensing bodies together with the University of Dublin to agree in a common minimum examination, he might say that a voluntary scheme was submitted to them, and they met together. He acted as the representative of the University of Dublin. They got on very well till they came to the question of money, and then one of the bodies walked out. Then the College of Physicians took up the matter, and proposed that they should frame another scheme and let the four remaining bodies form a conjoint examining board. They spent a great deal of time, and at last fell out over the Apothecaries. Therefore the quadrinary scheme failed. Then they proposed a trinary scheme, but the inevitable money question turned up again; then, lastly, the College of Surgeons proposed a trinary scheme between themselves and the College of Physicians. That broke down, and now they have the unitary system in all its perfection in Ireland. I have examined the proposed scheme for Ireland, and I think it would be satisfactory from an educational point of view. If a conjoint scheme were made compulsory, I think it would go far to settle the question of medical education for many years to come. The remainder of the work of the Medical Council would then consist in the regular inspection of examining and teaching bodies, and if enlarged it would hold shorter meetings. They might delegate their inspecting powers to a competent commission, consisting of one of their own body and an eminent outsider, this commission to be paid for their services and to report to the Council. If the principle of direct representation were conceded, the election of four or six additional members would bridge over the chasm which existed between the Council and the profession. Insurmountable difficulties had been found to exist in the way of indirect representation. If direct representation were allowed he should not exclude as voters those persons who had already voted in corporations or universities. With regard to the complaints of the expense to the profession of the Medical Council, and the desirability of diminishing that expense, he felt strongly that too much money was spent in the payment of the representatives. In fact, all the money was spent in payment of their fees. He would suggest that Parliament should compel the Crown and the various corporations to pay their own representatives. There would

then be a large surplus for the proper business of the Council. He did not think it would be possible to pass the Bill in the House of Commons authorising the conjoint scheme and adjourning the vexed question of direct representation. Personally he thought the question of the conjoint scheme a very pressing one, but the direct representation party would block the Bill. Though the matters were not absolutely connected with each other, yet in Parliamentary conflict they would be.

By Sir TREVOR LAWRENCE: The affiliation of students to various colleges would have a tendency to keep students in order. He thought the public were beginning to find out the relative value of medical degrees. The effect of a compulsory scheme would be to abolish all the corporations that ought to be abolished. There was no qualification for the practice of medicine in the kingdom higher than that of Edinburgh University. He thought the claim for direct representation was pretty much a sentimental grievance. He had no fear that the conjoint scheme would produce a dead level of uniformity, which would be very undesirable; or that it would have the effect of lowering the standards of the various corporations. A man could take himself out of the dead level by taking some of the higher qualifications. From his experience the student was overloaded. He would cut down the curriculum, but add other subjects—such as ophthalmic surgery, which he thought was worthy of a special place, especially having in view that one of the first things an army doctor would have to treat in India would be ophthalmia. There were no subjects in the present curriculum which he thought superfluous; and he thought medical botany, as recommended by the Medical Council, was a very good subject.

By Mr. WHEELHOUSE: With reference to the possibility of the Medical Council having got through more work if it had adopted the plan of appointing committees, he thought, considering the multitudinous interests represented, there would be great jealousy in giving power to a committee. Hereafter the Council must confine itself to short meetings to receive reports of committees. The medical degree of the University of Dublin was, in his opinion, as good as that of the University of Edinburgh. The expression, "the battle of shops," would not apply to Dublin. Dublin and Edinburgh for many years recognised each other's qualifications. It was the general impression that you could get your qualification on easier terms in one place than another. He was not aware that there had been any very recent alteration as to the roll-call or in the method employed in the outside schools in Dublin of compelling attendance. If no register were kept at any of the schools, there could be no check on the attendance of the students, and if by accident or fraud he got his certificate signed, he might, although incompetent in certain branches, get on the Register. It would all depend on the examination.

By Dr. LUSH: Speaking for himself, he was without any qualification in favour of direct representation. It would not become him to say whether there should be a diminution of the numbers of the Council or not. They may like to leave well alone. The Council having accomplished two of its main objects—namely, produced a Pharmacopœia and compiled a Register,—if it then delegated its inspection duties to persons outside the Council, its remaining duties would be from time to time to consider the removal of improper names from the Register, and there would be always work going on with reference to the Register. There was also the registration of dentists, and in all probability Parliament would impose on them the superintendence of the registration and education of midwives. He should have a great objection to the Medical Council being abolished and made a department of the Privy Council, as that would give them an arbitrary dictator. If the suggestion he had made as to the corporations paying their own representatives were carried out, he thought the meetings would be as short as possible, and that would be a great advantage. He would admit that the Medical Council as a body were too eloquent. The question of reducing the number of the Council was a very serious one. There was a proposal in the Bill that Oxford, Cambridge, and Durham should have but one representative. Oxford and Cambridge were not represented there merely as medical schools; nor did he see there merely as the representative of 200 medical students, but of 1300 students. Oxford and Cambridge being represented brought an amount of influence which would not exist if the medical students merely were represented. He entirely sympa-

thised with Professor Turner with reference to Edinburgh. Such an important university as Edinburgh ought to have its own representative. He would not say that he sympathised with universities rather than with licensing bodies. He did not like to express any opinion about the Apothecaries. He foresaw that a modification of the representation of the licensing bodies on the Council would take place to the extent of diminishing, either by addition or subtraction, the importance of the licensing bodies. In a somewhat similar proportion to the elevation of the Council by the representatives of Oxford, Cambridge, Dublin, and Edinburgh Universities it was possible that, in the opinion of the public, it was depressed by the representatives of the trading bodies. He would define the word "minimum" to mean as low as consistent with safety to the public in the three branches of practice where life may be in danger—medicine, midwifery, and surgery.

By Mr. ARTHUR MILLS: The improvements in education in Ireland which he had spoken of (with the exception of clinical examinations) were not in consequence of any suggestion of the Medical Council. The question of direct representation was not more a sentimental grievance than the question of popular representation, such as the extension of the county franchise and household suffrage. It was sentimental in this sense, that when it was obtained the results might be disappointing. He thought it probable that the introduction of direct representatives on to the Council would have the effect of improving its usefulness. He was a member of the Committee of which Dr. Waters was chairman, and they represented a very important body, and they would not let Parliament pass half of the Bill without the other half. The University of Dublin were in favour of direct representation, as also the Queen's College of Physicians, the Irish Medical Association, and, as far as he knew of the practitioners throughout the country, a very large majority of them were in favour of it.

By Dr. LYON PLAYFAIR: The University of Dublin had accepted the conjoint scheme as a means to an end, but the end was the great thing to secure. That end was that no licensing body should give a qualification to a man who was not safe to practise; and he was clearly of opinion that if that could be carried out by a system of inspection of all licensing bodies, the end would be secured as well as by the conjoint scheme; but he was afraid that that means would be found very expensive. The conjoint scheme had been accepted by them as the easiest and cheapest way of attaining the object. By the plan he had proposed of each body paying its own representative, large funds would be at the disposal of the Council, sufficient for the purpose.

By Mr. CAMERON: With regard to the effect of the conjoint scheme being to abolish corporations that ought to be abolished, his opinion was that if there were corporations that by spontaneous development would die out, they could hardly be worth preserving. He was aware that the moneys for the primary licences would be divided in certain proportions between the College of Surgeons, the College of Physicians, and the Apothecaries' Hall. The Apothecaries' Hall, even assuming it to be utterly worthless, would not die out, but it would receive payment for the important services it rendered to the public when the College of Physicians was asleep. He was aware that they had infinitely greater difficulties in Scotland than they had in England or Ireland, but it struck him that the four Scotch universities would have a claim on the surplus as well.

Mr. Ernest Hart was then called, but as he had not proceeded far with his evidence when the Committee adjourned, we reserve his evidence till next week.

The Committee adjourned till Friday.

ANIMAL VACCINATION.

At last common sense begins to tell. Year after year we have harped on the same string. We have piped, but few have danced. Now that a measure concisely summarising our long expressed objections has been introduced into the House of Commons, we might briefly note the fact, and pass it by. This we can hardly be expected to do, but we shall say little on the subject, for the Bill cannot pass this year. We are glad, however, to put before our readers a Bill such as we ourselves might have drafted,

backed by such names as Dr. Cameron, Earl Percy, Dr. Lyon Playfair, and Dr. Lush. We were the first proposers, as we have been the uniformly consistent supporters, of the alternative of animal vaccination from the time that vaccination became compulsory, and no doubt this would have long ago been the law of the land but for the existence of fossils on the one side and irreconcilables on the other. The Bill, which is intitled one "to encourage vaccination by providing facilities for the optional use of animal vaccine," runs as follows:—

Whereas many persons object to vaccination with the vaccine lymph provided by the State for public use on the ground that if such lymph has been obtained from an unhealthy child certain maladies may unintentionally be communicated along with the cow-pock: And whereas it is desirable to obviate this objection by providing facilities for the use, by those who prefer it, of vaccine lymph obtained directly from calves:

Be it therefore enacted by the Queen's most Excellent Majesty, by and with the consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

1. This Act may be cited as the Vaccination (Animal Lymph) Act, 1879.
2. In this Act the following expressions shall have the significations hereby attached to them; (that is to say),

"Animal lymph" shall mean vaccine lymph, either fresh or preserved, obtained directly from cow-pock vesicles upon a calf or heifer, and derived by propagation through a series of calves or heifers from virus obtained from a case of natural cow-pock:

"A public vaccinator" shall mean a public vaccinator appointed under the Vaccination Act of 1867:

"Vaccination" shall include re-vaccination.

3. Whenever any parent or person having the charge of an infant required by law to be vaccinated shall require the public vaccinator to vaccinate the said child with animal lymph, it shall be the duty of the public vaccinator so to vaccinate it; and no prosecution under the said Acts shall lie against such parent or person in event of the public vaccinator refusing to vaccinate such child with animal lymph. It shall further be the duty of public vaccinators when so requested gratuitously to perform vaccinations with animal lymph in all cases where it may be their duty to perform gratuitous vaccinations.

4. For the purpose of carrying out this Act the President of the Local Government Board shall take such measures (the cost whereof shall be defrayed out of moneys to be provided by Parliament) as may from time to time be necessary to secure for the public use a supply of animal lymph, and to provide for its distribution to public vaccinators and medical practitioners practising within the United Kingdom.

5. Any person who knowingly supplies or who knowingly uses for vaccination as animal lymph lymph which is not animal lymph as defined in this Act shall be guilty of an offence against this Act, punishable by imprisonment for any period not exceeding three months, or to a fine not exceeding fifty pounds.

GENERAL CORRESPONDENCE.

THE TREATMENT OF CAPE DYSENTERY.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your issue of July 5 there is an article by Dr. B. Nicholson, which is not only intrinsically valuable for the keen observation displayed therein, but also as being about the only essay upon a neglected subject. It is most clearly true that in Cape dysentery "neither the general nor local symptoms are as marked as might be expected," and that the character of the disease is different from the same in other places. With the second section I quite agree, with the exception that, in my experience, great atrophy of the glandular structures as well as of the mucous coats of large, and more or less of small, intestine is found. In bloody dysentery I should be very sparing of calomel or any mercurial in the adult; but I would make a total exception in the case of children, where frequent and small doses of hyd. c. creta and abdominal inunction are wonderfully beneficial. In the bloody stage, Dr. Nicholson intimates that astringents are palliatives, and not remedies; mere local astringents being remedies for local lesion, and little, if at all, affecting the specific gravity of the blood. Ipecacuanha seems to have a powerful local effect, but I think the necessity of large doses is only the result of neglecting to commence giving small doses every hour—say, for an adult, two grains with five drops of laudanum every hour early in the disease. I should dread giving oatmeal in this or any other bowel disease where glandular ulceration existed, except it was very carefully strained, lest a husk should get entangled in an inflamed patch. I would be glad to know if Dr. Nicholson has noticed a kind of shivering, ague-like fit which precedes every motion—coming on from five to ten minutes before. Dr. Nicholson's remarks, short as they are, embody the main facts, and point out the lines of treatment which are arrived at by experience and careful observation.

I am, &c.,

FIVE YEARS' PRACTICE IN SOUTH AFRICA.

THE TRUE VIEW OF THE VICTORIA UNIVERSITY.

LETTER FROM MR. W. CARTER.

[To the Editor of the Medical Times and Gazette.]

SIR,—Considerable misconception seems to exist as to the openness or otherwise of the medical degrees proposed to be conferred by the Victoria University in the event of a charter being granted. It is well understood, however, by those who are acquainted with the terms of the proposed charter, that no degree shall be conferred on any student who shall not have resided at the Owens College.

I am, &c.,

WILLIAM CARTER.

74, Rodney-street, Liverpool, July 22.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 17th inst., and when eligible will be admitted to the Pass Examination, viz. :—

Battiss, W. S., student of the London Hospital.
Bott, Joseph, of the London Hospital.
Beswick, Robert, of St. Bartholomew's Hospital.
Butler, G. R., of St. Thomas's Hospital.
Gepp, Maurice, of the London Hospital.
Harris, Howard, of the Charing-cross Hospital.
Heath, A. T. G., of St. Bartholomew's Hospital.
Hosker, J. A., of the London Hospital.
Leech, A. H., of the Charing-cross Hospital.
Lilly, F. J., of St. George's Hospital.
Mosse, H. R., of the Charing-cross Hospital.
Power, E. T., of St. Bartholomew's Hospital.
Smith, J. A. P., of St. Bartholomew's Hospital.
Smith, L. R., of St. Bartholomew's Hospital.
Summer, J. S. S., of the London Hospital.
Wilcocks, A. D., of King's College Hospital.

With this meeting the Primary Examinations for the present session were brought to a close. Out of the 201 candidates examined, seventy-two were rejected, including twenty-two who had an additional three months.

The following gentlemen having undergone the necessary examinations were admitted Members of the College at a meeting of the Board of Examiners on the 21st inst., viz. :—

Bowman, H. T., M.B. Durh., Newcastle-on-Tyne, student of St. Bartholomew's Hospital and the Newcastle School.
Davidson, John, L.S.A., Kilburn, of King's College Hospital.
Dodd, J. R., M.B. Durh., Newcastle-on-Tyne, of St. Bartholomew's Hospital and the Newcastle School.
Havens, E. J., L.S.A., Colchester, of the London Hospital.
Manners, Arthur, Hull, of the Manchester School.
Marsden, J. C., L.S.A., Madras, of University College Hospital.
Martin, E. F., M.D. Edin., Weston-super-Mare, of the Edinburgh School.
Pegler, L. W. H., M.B. Edin., Colchester, of the Edinburgh School.
Smith, E. B., M.B. Aberd., John-street, W., of St. George's Hospital.
Spratt, W. J., M.D. Queen's Univ. Ire., Dromore, co. Down, of the Belfast School.
Webb, C. A., L.S.A. Drighlington, Yorks, of St. George's Hospital.

Thirteen candidates were rejected. The following gentlemen passed on the 22nd inst., viz. :—

Cowen, W. A.D., L.R.C.P. Edin., Gosport, Hants, student of St. Thomas's Hospital.
Dales, William, Sheffield, of the Sheffield School.
Dale, B. H., Scarborough, of the Bristol School.
Foster, William, B.A. Cantab., of the Leeds School.
Frakes, H. S., Manchester, of the Manchester School.
Grace, W. G., L.R.C.P. Edin., Acton, of the Bristol School.
Hamilton, S. G., Queen Anne's Mansions, W., of St. George's Hospital.
Harbord, E. A., Wainfleet, Lincolnshire, of the Birmingham School.
Hodgson, John, Oldham, of the Manchester School.
Lewis, J. G. S., L.S.A., Ealing, of Guy's Hospital.
Maile, C. E. D., L.R.C.P. Edin., Faversham, of St. Thomas's Hospital.
Mellor, Thomas, L.S.A., Bury, of the Manchester School.
Milne, J. K., Manchester, of the Manchester School.
Payne, Henry, Bolton, Lancashire, of the Manchester School.
Peck, F. S., Clifton, of the Bristol School.
Porter, T. M., Liverpool, of the Liverpool School.
Smith, H. S., Axbridge, of the Bristol School.
Teskey, Luke, M.B. Toronto, Toronto, of the London Hospital.
Whitehouse, John, Smethwick, of the Birmingham School.

Ten candidates were rejected. Cricketers will recognise in the above list the well-known name of Dr. W. Gilbert Grace as having been admitted a Member of the College.

The following gentlemen were admitted Members on the 23rd inst., viz. :—

Ballance, C. A., Lower Clapton, student of St. Thomas's Hospital.
Bennett, F. J., George-street, W., of St. George's Hospital.
Booth, T. C., Staleybridge, of the Manchester School.
Challinor, S. McM., Bolton, of the Manchester School.
Dimmock, H. P., Chelsea, of St. George's Hospital.
Fisher, F. C., Cadogan-place, of St. George's Hospital.
Flanagan, H. E. B., L.S.A., Woolwich, of Guy's Hospital.
Goodridge, E. W. G., Childe Okeford, Dorset, of St. Thomas's Hospital.

Ho Kai, M.B. Aber., Hong-Kong, student of St. Thomas's Hospital.
Holland, E. W., Bath, of St. Thomas's Hospital.
Huxley, F. E., Birmingham, of the Westminster Hospital.
Maitland, C. B., Haymarket, of St. George's Hospital.
Pritchard, S. E., L.S.A., Beaumaris, Wales, of the London Hospital.
Warburton, Arthur, Crewe, Cheshire, of University College Hospital.

Nine candidates were rejected.

Correction.—The name of Mr. St. Clair Thomson, of King's College, was accidentally omitted in the list of the 12th inst. as having passed his Primary Examination on that day.

The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the candidates at the written examination for the diploma of membership of the Royal College of Surgeons on the 18th inst., when they were required to answer at least four (including one of the first two) out of the six questions, viz. :—
1. Describe the general arrangement of the cervical fascia, and point out how it determines the course of purulent collections in the neck. 2. After ligation of the common femoral artery, by what arteries would the collateral circulation be carried on? 3. Describe the anatomical conditions which characterise talipes varus and valgus. 4. Give the causes, effects, and treatment of acute periostitis. 5. Describe how you would investigate a case of retention of urine in the male in order to discover its cause. 6. In what parts of the lachrymal passages, and by what causes, may obstruction be produced? Describe the symptoms and treatment of such cases. The following were the questions on the Principles and Practice of Medicine submitted to the candidates on the following day, viz. :—1. What are the causes, symptoms, and pathological consequences of abscess of the kidney? By what routes may such abscesses discharge themselves? 2. What are the causes of regurgitant mitral valve disease? How would you detect its presence, and what are its pathological and clinical consequences? 3. Describe the physiological and therapeutical effects of opium; and enumerate the pharmacopœial preparations in which opium or morphia is present, stating their strength in opium or morphia, and their usual doses. Write a prescription for a child suffering from summer diarrhoea.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 17 :—

Hart, Henry, Morgan-street, Newport, Mon.

Spencer, Dhaujibhai Barjorji, 47, Murford-gardens, Kensington, W.

The following gentlemen also on the same day passed their Primary Professional Examination :—

Crosse, William Henry, Guy's Hospital.

Osborne, Harold Rochester, Guy's Hospital.

Stansbury, Charles James, St. Bartholomew's Hospital.

APPOINTMENTS.

HABLEY, JOHN, M.D., Lond.—Physician to St. Thomas's Hospital, *vice* Murchison, deceased.

JACOB, ERNEST H., M.A., M.B.—Hon. Physician to the Leeds Public Dispensary, *vice* Clifford Allbutt, resigned.

WAR OFFICE.—Surgeon-Major William Grantt, M.B., retires upon half-pay with the honorary rank of Deputy Surgeon-General.

BIRTHS.

BIRCH.—On July 17, at Sussex House, Downs-road, Lower Clapton, the wife of George Birch, M.R.C.S., of a son.

PHILPOT.—On July 23, at 26, South Eaton-place, S.W., the wife of J. Henry Philpot, M.D. Lond., of a son.

PHILIPS.—On July 21, at Lemon House, Queen's-road, Peckham, the wife of Philip G. Philips, M.R.C.S. Eng., of a daughter.

RENDALL.—On July 17, at Maiden Newton, Dorsetshire, the wife of William Rendall, M.R.C.S., of a son.

SEAMAN.—On July 17, at Ledbury-road, the wife of W. C. Seaman, M.D., Deputy Inspector-General A.M.D., of a daughter.

MARRIAGES.

BOUSTEAD—WILLIAMSON.—On July 22, at Edinburgh, Surgeon-Major Robinson Boustead, F.R.C.S., H.M.I. Army, to Katie, second daughter of Thomas Williamson, F.R.C.S., F.R.S.E., of Leith.

COOPER—POWER.—On July 22, at St. Mary's, Bryanston-square, Francis Cooper, of Cumberland-terrace, Regent's-park, to Ada Frances, eldest daughter of Henry Power, F.R.C.S., of Great Cumberland-place, Hyde-park.

GARDNER—GUINAND.—On July 19, at Islington, Sebastian Claud Thomas Gardner, M.R.C.S. Eng., to Lina Emily, only surviving daughter of the late Celestin Guinand, Esq.

PLAYFAIR—MONCUR.—On July 22, at Edinburgh, John Playfair, M.B., F.R.C.P.E., to Margaret Jane, eldest daughter of the late John Moncur, Esq.

POWELL—FALKENBERG.—On July 19, at Wallasey, Cheshire, William Powell, M.R.C.S., of Bromyard, Herefordshire, to Amalie W., younger daughter of the late Carl Ernst S. Falkenberg, of Trier, Rhenish Prussia.

REED-KNIGHT.—On July 17, at St. George's Church, Hanover-square, Robert Rhodes Reed, M.D., to Margaret, widow of Frederick Knight, Esq., Castle Rising Lodge; both of King's Lynn, Norfolk.

WALKER-WILSON.—On July 8, at Kentish New Town, Frederick Gibbon Walker, second son of William Newman Walker, F.R.C.S., of Tollington-park, to Annie, younger daughter of Edward Wilson, of Oseney-crescent, Camden-road, N.W.

DEATHS.

ROGERS, MARY JANE, wife of J. F. Rogers, L.R.C.P. Edin., at 117, Old-street, E.C., on July 13, aged 39.

SMITH, JOHN SODEN, M.R.C.S., formerly of Norton Grounds, son of the late George Smith, M.R.C.S., A.M.D., at Upton, Little Hereford, on July 20.

WRIGHT, JOHN HARRINGTON, M.R.C.S. Eng., Surgeon-Major 4th Battalion Rifle Brigade, only son of the late John Wright, M.D., of Storey's Gate, at Attock, India, on June 20, aged 38.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

CROYDON GENERAL HOSPITAL.—House-Surgeon. Candidates must hold the double qualification, and be registered under the Medical Act. Applications, accompanied with twenty-five printed copies of testimonials, on or before August 1.

GENERAL INFIRMARY, HULL.—House-Surgeon. Candidates must be Members or Licentiates of the College of Surgeons of England, Edinburgh, or Dublin; they must be qualified as general practitioners, registered, and unmarried. Applications, with copies of testimonials, to the Chairman of the House-Committee, on or before August 6.

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N.—Junior Resident Medical Officer. Candidates should possess a qualification. Applications, with copies of testimonials, to the Secretary, on or before Aug. 1.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Surgeon-Dentist. Candidates must be Members of the Royal College of Surgeons. Applications to the Secretary on or before August 6.

SHEFFIELD GENERAL INFIRMARY.—House-Surgeon and Assistant House-Surgeon. Candidates for these appointments must be Members of one of the Royal Colleges of Surgeons of the United Kingdom, or Licentiates of the Faculty of Physicians and Surgeons of Glasgow, also Licentiates of the Apothecaries' Company, or Licentiates of the Royal College of Physicians of London, and on the "Medical Register." Applications, with testimonials, to the Secretary, on or before August 16.

SUSSEX COUNTY HOSPITAL.—House-Surgeon. Candidates must be fellows or members of one of the Royal Colleges of Surgeons of the United Kingdom, and either Licentiates of the College of Physicians or Licentiates of the Society of Apothecaries of London; duly registered under the Medical Act; unmarried, and under thirty years of age. Diplomas and testimonials to the Secretary at the Hospital, on or before August 13.

WINDSOR ROYAL INFIRMARY.—House-Surgeon. Applications, with testimonials, to the Secretary, on or before July 30.

HOW SMALL-POX IS SPREAD.—In the Northern Divisional Police-court, Dublin, on Saturday, July 12, Thomas Keating, a resident in the tenement house, 164, Church-street, was summoned on the complaint of Acting-Inspector Halligan, sanitary officer, for having, contrary to the provisions of Section 142 of the Public Health (Ireland) Act, 1878, permitted on June 16 last a "wake" to be held in his rooms on the body of his son, who had died of confluent small-pox the previous day. Dr. Toler deposed that he is the medical officer in charge of the post-office and telegraph officials. In June last, defendant's son, an *employé* of the postal authorities, was ill, and on visiting him his mother said to witness that she feared the boy had small-pox. She removed from his face a sheet with which it was covered, and witness saw that his face was covered with small-pox pustules. He told the mother that the boy had small-pox. He died four days after. Evidence was given proving that the boy was "waked," and that there were a large number of persons present, including several mothers of families. The solicitor for the prosecution said that the result of the wake was that several who attended it got small-pox, and one of them, a man, died. The defence was that defendant's act had not been wilful. This was required by the Act. But Mr. O'Donnell, the presiding magistrate, considered that the medical evidence showed that the defendant was quite well aware of the fact that the boy had small-pox. The doctor had distinctly told the mother that such was the case. There was not the slightest doubt but this abominable habit of holding wakes on the bodies of persons that had died of infectious disorders was the means of propagating disease, and it was notorious that they were constantly held in Dublin. On the evidence he should hold the defendant responsible, and he would inflict the full penalty and fine him £5. The conviction in this most glaring case is regarded with great satisfaction in Dublin by all who have the welfare of that city at heart. We learn that it is the first occasion in which a prosecution has been brought under the subsection of Section 142 of the "Public Health (Ireland) Act, 1878," which deals with

"wakes." The subsection reads, "Any person who wakes, or permits to be waked, in any house, room, or place over which he has control, the body of any person who has died of any dangerous infectious disorder, shall be liable to a penalty not exceeding £5." The infliction of the full penalty in the present case cannot but prove a salutary lesson to those who still connive at that relic of barbarism—the waking of the dead.

THE ST. GEORGE'S UNION INFIRMARY.—The Guardians of the St. George's Union, Hanover-square, opened a new infirmary for the district on February 20, 1878, and their Medical Officer, Dr. H. W. Webster, has issued an annual report commencing from Lady-day in that year to Lady-day, 1879. During that period the total number of patients under treatment has been 2496, of whom 313 died, giving a rate of mortality of 12½ per cent. The most noticeable feature in connexion with this infirmary is the employment of stimulants only as medicine. Neither spirits nor malt liquor are administered to the patients except in the most urgent cases, and Dr. Webster states that, as a result of this arrangement, many of those who would otherwise refuse to acknowledge themselves better are perfectly willing to be discharged when really cured; and, in his opinion, if a pint of beer were added to each dietary, the average number of patients would be increased 10 per cent. in a very short space of time. A comparison of the death-rate with that of other metropolitan infirmaries where stimulants are freely used does not show that the inmates of the St. George's Infirmary have suffered from non-alcoholic treatment. Thus, the Poplar and Stepney Sick Asylum, with an average number of 450 patients, and an expenditure of £625 per annum for stimulants, exhibited a death-rate of 19 per cent.; the Lambeth Infirmary, with 548 patients, spent £364 for the same purpose, and was credited with a death-rate of 10½ per cent.; the Central London Sick Asylum, Highgate, with 446 patients, and an expenditure of £612 for stimulants, had a death-rate of 10½ per cent.; whilst the St. George's Infirmary, with 559 patients, and an outlay of only £8 for wine, spirits, etc., returned its death-rate as 12½ per cent. only. Dr. Webster admits that he began his experiment of avoiding the use of stimulants under exceptionally favourable circumstances, since the new infirmary was opened under this new rule, and he therefore experienced far less opposition to the reform than might be expected in an old institution which had previously been conducted on other principles.

DISEASED MEAT IN LIVERPOOL.—James Harrison, a German sausage manufacturer, living in Maguire-street, Liverpool, was fined £100 and costs on the 15th inst., for having deposits of bad meat in two different parts of the town. On his own premises were two pieces of veal, seven of pork, and a hundred and nineteen of beef, in all about a hundredweight, removed from animals that had suffered from typhoid fever and dropsy; while at the yard of a plumber in Vauxhall-road was another large quantity. The meat was steeped in a solution of alum in order to disguise its diseased appearance, and was seized only just in time to prevent its being converted into sausages. It transpired that Harrison was in an extensive way of business, keeping several vehicles for the purpose of distributing his sausages through the town and neighbourhood, and that although but a few years ago he was worth nothing, he was now comparatively rich—a circumstance which is very easily understood, when it is remembered, as was stated by the Chairman of the Health Committee in commenting on the case, that the vile stuff which was seized could be got for nothing, and was sold for 8d. or 9d. a pound. It appears to be a custom for persons engaged in traffic in diseased meat to put up a notice the moment an inspector appears to the effect that the meat "is not to be sold until it has been inspected." This same man was fined £10 in July, 1877, and, in the opinion of the Chairman of the Health Committee, and many others, ought on the second occasion to have been imprisoned without the option of a fine.

COFFEE AND EGG FOR THE SICK.—It is said that life can be sustained by the following when nothing else can be taken:—Make a strong cup of coffee, adding boiling milk as usual, and sweetening a little more. Take an egg, and beat the white and yolk thoroughly together, and having boiled coffee, milk, and sugar together, pour them over the beaten egg in the cup you are going to serve it in.—*Philad. Med. Times*, May 10.

NOTES, QUERIES, AND REPLIES.

THE CASE OF THOMAS MILLERCHIP.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The undermentioned sums have been forwarded to me: the subscribers have asked for acknowledgment:—

J. H. Crisp, Esq., Ladbroke, Wilts	£1 1 0
Dr. Green, Alderston, Woodbridge	0 10 0
James Milward, Esq., Cardiff	1 1 0
Dr. C. R. Renshaw, Beech Hurst, Ashton	2 0 0
Dr. Glover, Highbury	1 1 0

(The total amount which has now been received is £60 10s.)

33, Dean-street, W., July 23. I am, &c., JOSEPH ROGERS.

FOREIGN DEGREES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you allow me space in an early number of your journal to contradict the statement made by Sir Dominic Corrigan, in his examination last week before the Select Committee of the House of Commons on the Medical Act (1858) Amendment Bill (No. 3), that German universities do not require examination for the medical degree? I challenge Sir Dominic Corrigan to substantiate his assertion with proof. The Committee of the House, in all probability, will know how much to believe, and the reverse, or the result might be a grave injustice to the holders of foreign degrees. It seems hardly necessary to say that it is totally false to say that German university degrees can be obtained without examination. I have ample proofs, which I have already published in my "Guide to European Universities," that strict examinations are required before a medical degree can be obtained in Germany in all cases except in the case of the M.D. *honoris causâ* given to eminent medical men. I think, Sir, that the Committee of the House of Commons would do well, before they close the hearing of evidence, to examine some general practitioners possessing foreign degrees, and not accept one-sided testimony only from men whose aim appears to be to laud their own universities at the expense of others equally respectable.

Sheffield, July 21. I am, &c., H. J. HARDWICKE, M.D.

COMMUNICATIONS have been received from—

Dr. C. HANDFIELD JONES, London; Mr. HENRY MORRIS, London; Dr. T. BARLOW, London; Dr. ELLIOT, Carlisle; Dr. W. J. BLACK, London; Dr. S. K. COTTER, Ballincollig; Dr. F. J. DE GOSNER, Paris; THE SECRETARY OF APOTHECARIES' HALL, London; Dr. NORMAN KERR, London; Dr. WILLIAM CARTER, Liverpool; Prof. B. VON LANGENBECK, Berlin; Mr. E. H. MAY, London; Dr. ROBERT LIVEING, London; Dr. H. J. HARDWICKE, Sheffield; Dr. J. RUSSELL, Birmingham; Dr. BOURNEVILLE, Paris; Dr. W. J. LUSH, Andover; Dr. G. E. HERMAN, London; Dr. J. M. BRUCE, London; THE REGISTRAR-GENERAL, Edinburgh; Dr. ROGERS, London; Dr. RING, London; Mr. J. CHATTO, London; Mr. T. M. STONE, London; THE SECRETARY OF THE BRITISH MEDICAL TEMPERANCE ASSOCIATION, London.

BOOKS AND PAMPHLETS RECEIVED—

Guy's Hospital Reports, vol. xxiv.—J. Mortimer-Granville, Sleep and Sleeplessness; The Skin and its Troubles—S. Messenger Bradley, F.R.C.S., Injuries and Diseases of the Lymphatic System—The Alcohol Question, by Sir James Paget, Dr. T. Lauder Brunton, Albert J. Bernays, Ph.D., etc.—Rev. J. Dodd, M.A. Oxford, On the Value of Human Life, or The Present History and Possible Future of our Hospitals.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Revue Médicale Française et Etrangère—L'Union Médicale d'Orient—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Index Medicus—Giornale Internazionale delle Scienze Mediche—Guy's Hospital Gazette.

APPOINTMENTS FOR THE WEEK.

July 26. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

28. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

29. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

30. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

31. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

August 1. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 19, 1879.

BIRTHS.

Births of Boys, 1251; Girls, 1237; Total, 2488.
Average of 10 corresponding years 1869-78, 2233.4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	618	582	1190
Average of the ten years 1869-78	823.2	746.5	1569.7
Average corrected to increased population ... ..	...	...	1680
Deaths of people aged 80 and upwards ... ..	...	...	37

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West	561359	3	9	7	4	3	...	...	...	6
North	751729	1	13	8	...	8	...	3	...	2
Central	334369	...	8	3	1	4	...	...	...	1
East	639111	1	23	6	...	9	...	...	...	2
South	967692	1	15	16	5	12	...	2	...	9
Total	3254260	6	73	40	10	36	...	5	...	27

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	29.64 in.
Mean temperature ... ..	...	...	...	...	...	58.4°
Highest point of thermometer ... ..	...	...	...	...	...	72.9°
Lowest point of thermometer ... ..	...	...	...	...	...	50.1°
Mean dew-point temperature ... ..	...	...	...	...	...	54.2°
General direction of wind ... ..	...	...	...	...	...	Variable.
Whole amount of rain in the week ... ..	...	...	...	...	...	0.23 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 19, in the following large Towns:—

	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending July 19.	Deaths Registered during the week ending July 19.	Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temperature of Air (Fahr.)	Temp. of Air (Cent.)	Rain Fall.
										Inches. Centimetres.
Boroughs, etc. (Municipal boundaries for all except London.)										
London	3620868	43.0	2438	1190	72.9	50.1	58.4	14.66	0.23	0.58
Brighton	105608	44.9	64	26	72.4	50.3	59.8	15.45	0.74	1.88
Portsmouth	131821	29.4	78	34	...	...	...	...	...	...
Norwich	85222	11.4	64	29	71.5	49.0	57.2	14.00	0.34	0.86
Plymouth	74293	53.3	44	16	65.0	51.5	55.8	13.23	1.14	2.90
Bristol	209947	47.2	126	63	73.6	47.3	53.0	14.44	1.55	2.67
Wolverhampton	75100	22.1	54	23	70.5	47.0	54.8	12.67	3.09	7.85
Birmingham	388384	46.3	304	121	...	...	...	...	...	...
Leicester	125622	39.3	106	35	72.5	49.8	57.9	14.39	1.13	2.87
Nottingham	169398	17.0	133	47	76.1	47.9	57.7	14.28	0.64	1.63
Liverpool	538333	103.3	413	202	68.3	51.9	56.9	13.83	0.74	1.88
Manchester	361819	84.3	301	138	...	...	...	...	...	...
Salford	177849	34.4	131	65	...	...	...	...	...	...
Oldham	111318	23.9	67	37	...	...	...	...	...	...
Bradford	191046	26.5	134	54	63.3	48.0	53.7	12.06	0.61	2.06
Leeds	311860	14.5	233	100	64.0	49.0	54.6	12.56	0.60	1.52
Sheffield	297138	15.1	222	101	65.0	49.0	54.9	12.72	1.31	3.33
Hull	146347	40.3	101	45	...	...	...	...	...	...
Sunderland	114575	41.4	74	31	63.0	42.0	52.7	11.50	0.65	1.65
Newcastle-on-Tyne	146948	27.4	103	63	...	...	...	...	...	...
Edinburgh	226075	53.9	131	78	61.6	45.8	52.6	11.45	3.26	8.33
Glasgow	578158	95.8	307	181	69.3	51.3	58.3	14.61	0.37	0.94
Dublin	314666	31.3	195	176	69.8	48.4	56.6	13.67	0.95	2.41
Total of 23 Towns in United Kingdom	8502896	38.6	5876	2853	76.1	42.0	56.2	13.44	1.07	2.72

* At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.64 in. The lowest reading was 29.33 in. on Sunday evening, and the highest 29.90 in. on Friday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

LECTURE

ON THE ETIOLOGY OF TYPHOID FEVER.

By ROBERT KING, M.B.,
Physician to the Middlesex Hospital.

GENTLEMEN,—I propose to address a few remarks to you to-day on the etiology of typhoid fever, directing your attention, by way of illustration, to the case of Emily B., now lying in No. 19 bed, Northumberland ward.

This young woman entered my service as nursemaid some two months ago, and undoubtedly contracted the disease in my own house. On Monday, May 19, she first complained of sick headache, but not so severe as to prevent her from discharging her duties; on the following day, however, diarrhœa set in. These symptoms—viz., headache, vomiting and purging, with a furred tongue, and loss of appetite—continued on and off all the week; nevertheless, she went about and got through her work with more or less help pretty much as usual, and no complaint was made to me until Thursday, May 22, when I was asked to prescribe for the diarrhœa. I ordered a little aromatic chalk mixture, and the next morning she said she was better, but on Saturday afternoon she was obliged to go to bed. I saw her in the evening, and found her shivering and complaining of severe pain in the lower part of the abdomen, which was increased by pressure. The tongue was thickly coated; the bowels had acted five or six times during the day, and she had also vomited. She had no appetite, but complained much of thirst and pain in the head. The skin was pungently hot, temperature 103.5° . The face was flushed and the eyes were suffused; the pulse was rapid and irregular.

There was no evidence of any uterine or ovarian disturbance, and I was forced to admit the disagreeable probability of typhoid fever. The next morning (Sunday) the temperature was normal, and she was better in every respect, but of course remained in bed all day. Towards evening the temperature rose to 101° , and she did not feel so well. On Monday, May 26, I sent her on to the hospital, where she was admitted under the care of my friend Dr. Cayley, whose clinical assistant, Mr. McCausland, has kindly furnished me with the further notes of the case, which conclusively prove the correctness of the diagnosis.

The state on admission was as follows:—

Patient complains of headache, thirst, and abdominal pain. Her tongue is coated, except at the tip and sides; it is, moreover, somewhat dry and brown down the centre. Pulse 120; temperature 104° . There is some tenderness over the abdomen, with gurgling in the right iliac fossa, but no rose spots. The splenic dulness is much increased, extending upwards fully four inches from the lower margin of the ribs.

Apex-beat of heart is diffused, and impulse is heaving, the first sound being prolonged and roughened. There is a systolic bruit over the thyroid gland, which is somewhat enlarged, but there is no well-marked exophthalmos. Bowels acted shortly after admission; motion quite loose, and of a light yellow colour.

The subsequent progress of the case was chiefly remarkable on account of the singularly irregular fluctuations of the temperature, which ranged from below normal to 104° , and as often as not was higher in the morning than at night. The headache and vomiting were also unusually persistent, and during convalescence the fever assumed a distinctly intermittent type.

Suffice it to say that the diagnosis was never for a moment doubtful; that in its clinical details the case presented little or nothing particularly uncommon; that it was not marked by extreme severity; and that, in point of fact, its chief interest centres in the evidence it affords as to the source from whence the poison was obtained, and the light which is thus thrown on the etiology of the disease.

A generation or two ago the distinction between typhoid and typhus fever was unknown. Germs had yet to be evolved from the inmost recesses of the unborn brain, and the modes of conveyance of the poison were scarcely more fully understood than they were in the days of Hippocrates.

At the present time, however, a man need not have studied medicine in order to be able to tell you that typhoid fever is intimately associated in his mind with bad drains, sewer-gas, and polluted drinking-water; indeed, in seeking for the cause of an outbreak of this fatal malady, these are amongst the first points to which we should naturally direct our attention.

When I came into possession of the house I now occupy, during the summer of 1872, the connexion which existed between the water-closets and the drinking-water cisterns was as follows: There were three closets in the house, that appropriated to the servants being located in the basement. The supply of water for this closet was derived directly from a cistern situated in the pantry behind the kitchen; and from this same cistern every drop of water used in the basement of the house was obtained, including the supply to the kitchen boiler. The waste-pipe of this cistern led directly into the soil-pipe of the closet above mentioned. Thus a double communication was established between the lowermost closet and the cistern which would naturally supply the water for drinking and cooking purposes. This admirably contrived and popular arrangement for impregnating water with sewer-gas I at once altered, by utterly abolishing the closet in question, and allowing the waste-pipe of the cistern to empty itself over a well-trapped grating. The kitchen cistern was thus completely cut off from all communication with the house-drain. It was, moreover, fitted with one of Lipscombe's cistern filters, so that all the water drawn from the kitchen tap, or passing into the kitchen boiler, was previously filtered through charcoal. A hand filter supplied daily from this source was placed just outside the dining-room door, and from this the drinking-water was supposed to be derived.

The second closet, situated on the ground floor, in rear of the hall, requires no comment, being supplied by a small cistern of its own, altogether inaccessible to servants. The third closet occupies a place on the landing, midway between the second and third floors, and is supplied with water direct from a large cistern in the roof of the house; the waste-pipe of this cistern leads into the soil-pipe just below the trap of this closet, and thus forms a sort of ventilating shaft between the top of the soil-pipe and the cistern in question.

The day and night nurseries are on the third floor, and directly opposite the door of the latter room there is a housemaid's sink, with a tap supplied with water from the top cistern just mentioned. Seeing, then, that the same double communication exists between the upper cistern and closet, which *did* exist between the kitchen cistern and closet before I effected the alteration already described, it is no wonder that I have always regarded the water derived from the top of the house with grave suspicion, and the danger of using it for drinking purposes was most fully impressed upon every member of my household. Arrangements were also made for supplying the nursery with pure water from downstairs as often as it might be required. Until quite recently this system worked well, but in March last a new nurse entered my family, and there is conclusive evidence to show that the orders were disregarded. So far, then, all I have proved is, that of two available sources of drinking-water, one was cut off from every connexion with the house drains, and fitted with a charcoal-filter, while the other was in direct communication with the soil-pipe; and further, that this latter was nevertheless used by the nurse for drinking purposes. A *prima facie* case is thus established, though without further testimony it does not necessarily follow that the typhoid poison was actually contained in the water derived from the upper cistern. By a singular coincidence, however, I am enabled to supply the strongest confirmatory evidence on this point, for, in consequence of having some lectures to deliver on water analysis, it so happened that during the months of April and May I several times examined the water supplied to my laboratory from the very cistern in question, and, moreover, compared it with the water obtained from the kitchen cistern. The results are to my mind conclusive: for while the water derived from the latter source seldom contained more than .01 milligrammes of free ammonia and .06 of albuminoid ammonia per litre, and varied but little from this amount, the laboratory water obtained from the upper cistern yielded at times more than double the quantity of free ammonia, and occasionally as much as .24 of albuminoid ammonia. Moreover,

the proportions of both fluctuated widely. This variation may probably be accounted for by the fact that the cistern is completely emptied some days, while at another time scarcely any water is withdrawn from it, and time is thus afforded for the more complete absorption of the sewer-gas; moreover, it is highly probable that the pressure of this gas in the soil-pipe, and even the constitution and solubility of it, is very far from uniform.

As the possibility of direct exposure to contagion from another person affected with the disease may practically be excluded, while the probability of such exposure, if it had occurred, producing the disease is extremely small; and as the milk is above suspicion, and forms almost the entire food of the youngest child, who is in perfect health; as, moreover, there is the most positive proof that the water in the upper cistern is frequently, if not always, unfit for drinking purposes by reason of the large amount of albuminoid ammonia it has been found to contain, it seems to me that the evidence in favour of the typhoid poison being conveyed into the body of this patient by the water in question is simply irresistible, and it is further strengthened by the fact that she very rarely drank anything except water with her dinner, and was seen to fill her tea-kettle from the tap outside her door on more than one occasion. Of course, if she thought the water good enough for making tea, it is fair to suppose that she would not hesitate to use it for her dinner when the supply from downstairs might chance to run short.

Assuming, then, that this water was the medium through which the poison was conveyed, from what source was the poison itself derived? The idea that it might have been supplied from without, through the company's mains, is of course utterly untenable, as in that case a regular outbreak of typhoid would have resulted; besides which, the analyses already mentioned point conclusively to contamination subsequent to delivery. With such evidence no reasonable person can doubt that it was furnished through the connexion existing between the cistern and the soil-pipe. The question, therefore, which we have to consider is, How did it get into the soil-pipe? At first sight perhaps this might seem to admit of a ready answer. The numerous advocates of the germ theory would probably tell you that typhoid germs were constantly present in the main sewers, of all our large towns, and that notwithstanding their well-known propensity to become absorbed or dissolved by water, and the equally well-known fact that the flow of sewage is from the house-drain into the main sewer, and cannot be the other way, they nevertheless continually succeeded in eluding both water and traps, and, overcoming every obstacle which human ingenuity could devise, effected an entrance into our dwellings and so gained access to our bodies. Now, the main sewers in London are many of them of large size, and men are daily employed in them for the purposes of cleansing and repairing; nevertheless, the health of these men is as a rule good, and there is certainly no evidence to show that they are more subject to typhoid fever than those whose lot is cast in pleasanter places.

Writing on this subject, Dr. Parkes says—"The air in many sewers in London is not very impure. The analyses of Letheby and Miller have shown that generally the amount of CO_2 is very little in excess of that in the external air, and that there is hardly a trace of H_2S or fœtid organic effluvia. The air of house-drains is often, in fact, more impure than that of the main sewers." Again the same authority remarks—"An inquiry lately conducted into the health of the sewer-men of London did not detect any excess of disease among them, and I was informed that in Liverpool also the sewer-men have good health. The workmen employed at the various sewage outfalls, and who, though not in the sewers, breathe the effluvia arising from the settling-tanks, do not find it an unhealthy occupation." A single fact such as this is worth a great deal of theory, since it proves most conclusively one of two things—either the so-called germs of typhoid fever do not exist to any great extent in the main sewers, or else they exist in that portion of the sewer-gas which is soluble in water, and so become absorbed by the fluid contents of the drain; hence, as the men do not drink the sewer-water, they do not contract the disease. At all events it is pretty clear that the typhoid poison does not exist in any large amount in the air of the main sewer; and the theory which supposes that it does so, and, moreover, finds its way thence into the house-drains,

and thence again into the drinking-water, and so produces the disease, is, I think, in the highest degree improbable: for why was it not absorbed in the first instance by the water in the main sewer? Is the sewer-water already saturated? If so, the amount of poison must be very great, and the comparative immunity of the sewer-men becomes simply inexplicable. Moreover, the contents of the main sewer are naturally more advanced in decomposition than those of the house-drains, and it is well known that decomposing organic matter gives off a much larger amount of gas than similar matter already decomposed; add to which, the house-drain, in nine cases out of ten, is less freely ventilated than the main sewer, and, being so much smaller, it might naturally be expected that the pressure of gas would be far greater in the soil-pipe than in the sewer, and this pressure would be vastly increased if any obstruction existed whereby the discharge from the house-drain into the sewer was impeded.

Now, it so happened that during the summer of 1875, the parish authorities—actuated, no doubt, by the best of motives, but with more of zeal than discretion—insisted upon providing every house-drain in the street with a ponderous cast-iron trap. This was fitted, at the unfortunate householder's expense, at the point of junction between his drain and the main sewer, and undoubtedly affords a melancholy example of the folly of extending in practice the excellent theoretical principle that every man should consume his own smoke; for the trap in question consisted of a square iron bottomless box, let into the brickwork in such a manner that the lid would open outwards from the house-drain into the sewer, and, the contents of the former having passed, would close again by its own weight—which, by the way, was no trifle. The benevolent idea was to keep the foul air of the main sewer out of the house-drain: the practical result was to prevent the fouler atmosphere of the house-drain from escaping into the sewer. At all events, such was the case with regard to my own house, as the closets—particularly the upper one, which hitherto had been perfectly free from any offensive smell—henceforth required the frequent use of carbolic acid. The only possible effect of such a trap must be to retard the evacuation of the house-drain, and allow time for decomposition to take place therein more fully than it otherwise would do, while an accumulation of filth was collecting at the door, and waiting until reinforcements of sufficient weight arrived to effect an entrance into the main sewer. For the first few hours after it was put down this door might have worked, perhaps, with tolerable ease, but it is impossible to imagine that it could have been in its place for a week without being well-nigh set fast with rust. Be this as it may, it is quite certain that it either failed most signally in shutting out the typhoid poison, or else that poison must have been generated *de novo* on the premises, for there had been nothing like typhoid fever in the house for certainly more than twenty years, and no direct communication exists between my house-drains and those of my neighbours. The advocates of the germ theory would, of course, insist that my parish trap must have got propped open, and that some of their pet parasites, declining to become absorbed either by the water in the main sewer or by that in my house-drain, contrived, with a malevolent sagacity out of all proportion to their size, to find their fœtid way up the soil-pipe, and so through the waste-pipe into the cistern; but if so, why did they wait until they were compelled to dispute their right of entrance with a massive cast-iron trap, when they could have come in without let or hindrance any time these twenty years past? How was it that, for time too long to tell, both cisterns communicated directly with the soil-pipe, and yet none of these mischievous microzymes ever thought of invasion before? I cannot but regard the theory of *contagium vivum* as highly dangerous in the hygienic point of view, since it practically excludes the possibility of diseases such as typhoid fever being generated *de novo*, for the only alternative would compel us to admit the unphilosophical doctrine of heterogenesis. Let it be once admitted that such poison can be produced by fœcal decomposition, and that such decomposition can occur within our own dwellings; and let it be moreover acknowledged that, just as in the case of the septic poison, decomposing matter is deadly, while that already putrid is rather offensive to our senses than toxically dangerous, and we shall hear much more of house-drains, and far less of sewer-gas. I do not wish, however, to convey to you the impression that I consider

healthy faecal matter capable of evolving the typhoid poison during the process of its decomposition. Were it so, I fear the disease, unhappily prevalent as it is, would be far more common. Probably you are all aware that healthy stools, like normal urine, are non-albuminous, while in certain diseased conditions either the one or the other may contain albumen. The evacuations of patients suffering from intestinal inflammation or ulceration—such, for example, as we meet with in typhoid fever or tubercular disease—are always albuminous; and possibly it is by the splitting up of this highly complex compound that the poison is generated. What may be the nature of the influence which determines the character of such decomposition, it is, of course, impossible to say; for, in the first place, the albuminoid group is a large one, and the distinctions between the various substances thus classed together are very imperfectly understood. We know, however, not only that animal and vegetable albumen differ, but that numerous modifications of this compound are met with in each sub-kingdom of nature. The albumen of egg differs from that of serum in its behaviour with reagents, and it would scarcely be too much to assert that almost every tissue of our bodies has an albumen of its own; besides which, even the same kind of albumen may undergo more than one species of decay. There is no difficulty, therefore, in accounting for the multiplicity or specificity of poisons if they are derived from such a source. Now, if we consider the special peculiarities of the fever-poisons, we shall be struck at once by their extreme potency, by the exceeding minuteness of the lethal dose in each case. In vain may we look through our list of known poisons for anything to equal it, but it is most nearly approximated by the more active members of the alkaloidal group; nor does the resemblance end here.

In man's body there exists an organ specially contrived for the purpose of eliminating an organic alkaloid. I need scarcely tell you that organ is the kidney, and the alkaloid is urea. Now, in case of disease—and, what is more remarkable, even in health, when an exclusively albuminous diet is persisted with—what we find is that the organ which normally eliminates the alkaloid, abnormally eliminates albumen; and as the quantity of the latter increases, that of the former diminishes. It is therefore probable that the alkaloidal body urea is produced by the normal decomposition of albumen, and hence, if the raw material is exported, the manufactured article cannot be supplied at the same rate.

If we turn now to the chemical properties of the organic alkaloids, and compare them with those of albumen, the resemblance is most striking. In the first place, albumen is by no means particular whether it plays the part of acid, or base, or both; and the same is true of some of the organic alkaloids. Strychnia, for example, is one of the most powerful of the vegetable bases; but it nevertheless combines readily with many of the metallic salts, forming compounds of sparing solubility, just as albumen does. Moreover, the metallic salts which most completely precipitate albumen—such as mercuric chloride, for example—form also the most insoluble compounds with strychnia.

But we have several group tests for the alkaloids, solutions which yield precipitates with almost every one of these bodies. The most noteworthy are Sonnenschein's reagent, or the acidulated solution of sodic phosphomolybdate, which is a perfect precipitant of albumen. This solution will precipitate all the organic alkaloids with the exception of urea. Bouchardat's reagent, which consists of a solution of iodine in iodide of potassium, is another group test precipitating nearly all the alkaloids, and likewise a very complete precipitant of albumen. Precisely the same may be said of tannogallic acid; while carbazotic acid and mercuric chloride are each of them efficacious in precipitating not only albumen, but also many members of the alkaloidal group. Furthermore, the precipitates produced by carbazotic acid have in each case a distinct tendency to assume the crystalline form. Nor is the coagulation of albumen by heat an anomaly without a parallel in the alkaloidal world, for if cold water be saturated with aconitia and then filtered, we have a most undoubted alkaloid which exhibits this remarkable feature, for on boiling some of the clear filtered solution in a test-tube, we find that it becomes milky from the precipitation of a portion of the alkaloid.

When distilled with alkaline permanganate, both albumen and the alkaloids yield ammonia, while, according to Professor

Odling, the putrid material which is frequently found in sewers is closely allied to the compound ammonias, and occupies a place midway between methylamine and ethylamine. I do not mean to infer from these facts that albumen actually is an alkaloid, but I think it is very likely that some of the products of its decomposition in disease may be of an alkaloidal nature, more poisonous than aconitia, and possibly, in some instances, more volatile than nicotine. In connexion with this subject it is interesting to observe that the hypothesis of alkaloidal fever-poisons is to some extent supported by clinical experience, for one of the vegetable alkaloids, viz., morphia, has been frequently known to occasion a form of intermittent fever nearly allied to ague. Dr. Levinstein of Berlin has published several such cases, and the subject is also mentioned by the late Dr. Murchison in a clinical lecture published in the *Lancet* of May 10 last. Moreover, the volatile vegetable alkaloids as well as ammonia, and the typhoid poison can all exist in air, can all be absorbed by water, and can all be expelled from their aqueous solution by prolonged boiling. Nor is this all, for animal charcoal, which possesses such extraordinary power of disinfecting and sweetening the atmosphere of a sick-room by absorbing and oxidising putrid organic effluvia, is also capable of absorbing an almost unlimited quantity of gaseous ammonia, while many of the vegetable alkaloids, if mixed with it in sufficient quantity, are wholly irrecoverable by chemical means. With regard to other disinfectants and so-called germicides, it will generally be found that their antiseptic power is in direct proportion to their albuminoid affinities; and the fact that meat may be preserved from putrefaction for some time by the agency of carbolic acid, salicylic acid, thymol, and a host of other substances, admits of a ready explanation when we consider that the antiseptics in question form with albumen very insoluble, and therefore comparatively stable, compounds. Perhaps the weightiest argument which can be adduced in favour of the theory that the specific fever-poisons consist of living particles or germs, is based upon the undoubted multiplication of these poisons in the system of the infected person; but I think that even this fact admits of a different explanation: for if the poison consist of some product of albuminoid decomposition, gifted with the power of affecting those particular elements of tissue from which it was derived, it is only natural to suppose that the process thus started, possibly in some one constituent of a single cell, would be liable to spread to similar constituents of adjoining cells, in much the same manner as the ordinary inflammation of a serous membrane, for example, is known to spread. The combined products of the decomposition of the mass of tissue thus finally involved would of course supply abundant material for an enormous increase on the amount of poison originally employed. Thus the multiplication of the poison may possibly represent the waste of tissue instead of marking the extent and progress of bacterial growth. This is well illustrated in the case of specific inflammatory diseases, such as gonorrhoea, for example. A very minute portion of the gonorrhoeal pus is sufficient to occasion the disease; and no one, I suppose, would dispute the fact that the poison is multiplied a thousand-fold.

Again, with regard to the period of incubation of the specific fevers, which is supposed by many to represent the time occupied by germ development, it must be borne in mind that *living* bodies do not putrefy, neither do the *living* cells of which those bodies are composed, and as in somatic death, so also in molecular death, the process of disintegration is a work of time, it may be therefore that the premonitory symptoms of these diseases set in when molecular death has proceeded to such an extent as to interfere with the functions of the affected part. If so, it would be natural to expect variation in point of time within certain limits; and clinical experience teaches that this does actually occur.

If, then, we can divest ourselves of the notion that the typhoid poison is a living entity propagating its kind by one or other of the various methods peculiar to vitalised bodies, I think there is no great difficulty in assuming the possibility of its arising *de novo*. So far as we are aware, the principal morbid change which takes place in the body of a person affected with this disease consists in a species of inflammatory affection of the intestinal mucous membrane, specially attacking the glandular structures known as Peyer's patches. Moreover, the evidence is conclusive that the evacuations from this diseased surface contain the great bulk

of the poison generated in the body of the patient. I have already told you that I do not believe that the typhoid poison can result from the decomposition of healthy stools; but when those stools cease to be healthy, and become albuminous, I think it is by no means improbable that such may be the case.

Now, it so happens that, for three or four years past, one of the inmates of my house has been affected with chronic mucous diarrhoea, and I have fully satisfied myself that the faecal evacuations of this individual contain albumen. After carefully considering the evidence which I have thus briefly suggested, rather than laid before you, I am inclined to think that it is not only possible, but even probable, firstly, that the poison of typhoid fever is a soluble, and perhaps volatile body, formed on the ammonia type by the decomposition of albuminous matter derived from inflamed intestine—that it may be, in fact, a sort of animal alkaloid; and, secondly, that in the case to which I have specially directed your attention to-day the poison was most likely generated *de novo* in my own house-drain during the putrefaction of the albuminous stools already mentioned. I think also that, owing in a great measure to the obstruction existing at the point of junction of this drain with the main sewer, the gaseous products of the decomposition were prevented from escaping into the sewer, and, ascending the soil-pipe, were absorbed by the water, which, as I have already indicated, was undoubtedly the medium through which the poison was conveyed. To those among you who may hereafter be engaged in country practice, opportunities will probably be afforded of investigating this interesting and important subject, apart from the sources of fallacy which a sewered town presents; and to such I would say, if no case of typhoid fever has been previously known in the district for a long time past, and if it be quite impossible, as it often is, to trace any direct or indirect communication with an infected person, or assign any cause for the appearance of the disease, it may not be altogether unprofitable to seek for evidence of some perhaps trivial enteritic affection producing albuminous stools.

ORIGINAL COMMUNICATIONS.

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA, ESPECIALLY THOSE PREVALENT IN BENGAL.

By Dr. CHEVERS.

(Continued from page 61.)

DENGUIS.

On several occasions, but especially in the years 1824, 1853, and 1872, severe epidemics of Dengue have traversed British India so generally that few have escaped the visitation. I have been at some pains to investigate the history of this disease in India; but I think that, for practical purposes, a bibliographical foot-note of the principal narratives will furnish sufficient data for those who desire to investigate the origin and progress of the various epidemics. (a)

The last great epidemic, which reached India late in 1871, and prevailed there far into the following year, appears to have been the most general and severest that has occurred. The disease was traced down the Red Sea to Aden, (b) and it extended throughout the three Presidencies of India, attacking multitudes. At one time nearly the whole of the large staff of medical men in Calcutta were more or less ill with it. Then, as in previous epidemics, the words of Kenneth Mackinnon were applicable to it—"The disease very seldom has proved fatal, perhaps never, except in cases where, from other causes, there existed a great tendency to death." One patient, an apparently healthy man, being attacked in sun-stroke weather, appeared to die from the irritation of the exanthem, as if scalded. The "break-bone" pains often continued for years. Four years afterwards, a man accosted

me in Paddington, telling me that he had been in my ward with Dengue, and was only then strong enough to return to Calcutta. I inquired of myself whether I was to blame for this slow recovery, but decided that I was not. I practised throughout the epidemic of 1855, but left India when that of 1871-72 had prevailed for three months. The urine was not albuminous, nor was there anasarca or serious throat affection in any of my cases in either epidemic. One of my colleagues, finding albuminuria in some cases in the visitation of 1872, and observing the general characteristics of the fever, argued that the disease was true scarlatina. It is probable, however, that his experience of scarlet fever was limited, and I do not think that he made any converts to his opinion. It is evident that, where the epidemic scarcely spares anyone, the subjects of functional and organic renal disorder are not likely to be exempted; and, in many cases, the exanthem is so extremely severe that it becomes matter for surprise that albuminuria should not be set up.

Quinine, in small doses, was evidently useful as a means of supporting vital power and of lowering the intensity of the fever, as it is in all Indian fevers, but it exerted no specific power in cutting short the malady; which, however, when the attack was very prolonged, was evidently arrested by change of residence—a measure which is of great validity in the treatment of many Indian diseases. A member of my own family was very ill at Howrah in 1855, and made no progress towards recovery from day to day. Having removed others with great advantage, I took my patient out of our comfortable home, across the river to a Calcutta hotel. Defervescence commenced immediately, and recovery was speedy.

TYPHUS.

I do not believe that true Typhus occurs in any part of Bengal proper, i.e., in the Southern portion of the Bengal Presidency. In upwards of twenty-seven years' practice there, during the last fifteen of which I had sixty beds in the largest Calcutta hospital, I looked constantly for the disease, but never saw it. Still, the local medical literature contains several statements adverse to my dictum. Thus, questionings have, from time to time, arisen as to whether the Burdwan Fever, which most observers regard as a paludal remittent of great severity, is not Typhus. In 1864, Dr. Chuckerbutty received into his wards at the Calcutta Medical College Hospital twelve cases of what he concluded to be Typhus Fever. (c) He showed me one or two of these cases at the time. They were certainly like cases of typhus; but no one can distinguish a severe case of Paludal Remittent from one of Typhus by merely looking at it, without submitting it to the crucial test of treatment. He and I admitted on alternate days—our wards opened into each other—and I watched vigilantly for the occurrence of cases of true Typhus in my own beds, but they never came to me. I do not think that the slight account which Dr. Chuckerbutty has given of these cases could have convinced readers of large English and Indian experience that these were genuine cases of typhus. The most striking fact is that, in eleven of the twelve cases, there was a "mulberry rash." There was no evidence of contagion.

The occurrence of Typhus in Upper India rests upon more extended authority; still I hold with Drs. Morehead and Murchison that proof is wanting of the existence of genuine Typhus in any part of India.

Five cases of what he considered to be Typhus have been recorded (d) by Dr. Allan Webb as occurring at Simla. Contagion was not proved; and, during nearly forty years which have elapsed since these observations were made, there have been no other cases of Typhus reported from Simla, the hill residence of the Government of India.

Dr. Joseph Ewart has reported (e) two cases of Typhus attacking native prisoners in the Ajmere Jail in 1855. The fact that their disease was considered to be typhus by an observer so accurate as my friend is assuredly strong evidence. Still I am not prepared to be convinced by two isolated cases to which the quinine test was not applied.

The late Dr. Robert Lyell and Dr. Thomas Farquhar have described a fever which prevailed in 1852-53 in the Yusufzief Valley, about forty miles north of the city of Peshawur. (f) Dr. Farquhar commences by designating the malady as "Typhus:

(a) Mellis—*Transactions of the Medical and Physical Society of Calcutta*, vol. i. (1824), page 310. Kennedy—*Ibid.*, page 371. Twining—*Ibid.*, vol. ii., page 1. Cavell—*Ibid.*, page 32. Mouat—*Ibid.*, page 41. Henry Goodeve—*Ibid.*, vol. ix. (1841), page 142. Kenneth Mackinnon—"Diseases of India," page 113. Edward Goodeve—*Indian Annals of Medical Science* (1855), vol. i., page 248. Charles—*Indian Medical Gazette*, February, 1872, page 25.

(b) It prevailed so generally at Aden that it was popularly said that the word "Dengue" was an abbreviation of "Aden ague"—the initial letters being omitted.

(c) *Indian Annals of Medical Science*, No. 18, page 122.

(d) *Transactions of the Medical and Physical Society of Calcutta*, vol. viii., part 11, page 274.

(e) *Indian Annals of Medical Science*, No. 7, page 65.

(f) *Ibid.*, No. 3, page 16, and No. 4, page 104.

Fever." The following are salient points in his description. It succeeded "an unusual amount of ordinary intermittent or remittent fever." "Jaundice in most cases occurred almost from the first and, as a principal feature of the disease, was present in by far the greater number of cases." "Relapses, from their almost constant occurrence, formed another particular feature of the disease." In these relapses, "frequent purging, great prostration of strength, and emaciation" were the most marked symptoms. "Inflammation and suppuration of the glands in the groin, axilla, and neck occurred in some that survived the first or second relapses." "The relapses of the fever assumed the remittent or even intermittent type." During these relapses, quinine, with which Dr. Farquhar was not successful at the outset of the attack, "did a great deal of good." With great deference to the judgment of my esteemed brother-officer, I feel convinced that this fever was very different in type from the true Typhus of which I had twelve years' observation in London. Dr. Lyell seems to have approached more nearly to the true differentiation of this malady when he wrote—"It appears to be the common remittent of the country, aggravated by filth and overcrowding into a type of fever differing very little from the Relapsing Fever which prevailed in Edinburgh in 1843-44." In like manner much questioning arose as to whether a fever which was described by Dr. W. Walker as committing great ravages in the Central Jail at Agra in 1860, which reappeared there in 1864, and which, in 1865, showed formidably in the Umballah, Futtyghur, Allyghur, Jyepore, Malwa, and other jails, was "true typhus," "contagious fever," "typhoid fever," "yellow typhus," or "contagious jaundice fever." Most of these reports were very carefully reviewed in the *Indian Medical Gazette* in 1867 and 1868, by my friend Dr. David Boyes Smith, with the result of convincing many, of whom I am one, that the Agra and Umballah fever approached very nearly in type Relapsing Fever, the prevalence of which in various parts of India is now scarcely denied by anyone.

If we put aside the exanthem of Typhus, there are few things in disease which more closely resemble each other than an advanced case of Indian Paludal Remittent without bowel complication and a case of genuine Typhus. Assuredly I know no mode of examination by which I could distinguish one from the other. But there is a test by which, in the course of an outbreak of such, at first sight, doubtful cases, I could very soon discover which of these two fevers I had to deal with. No case of Relapsing, Enteric, or Typhus fever was ever cut short by Quinine; whereas a case of Paludal Remittent without bowel complication, however closely it may simulate true Typhus, will always, provided recovery be possible, be checked, and with more or less difficulty cured, by a well-managed course of Quinine. To this QUININE TEST every obscure case of fever in India ought to be submitted by the young practitioner, who must not be too readily puzzled if it appears to fail him again and again; because he must remember that, when a patient is brought to him absolutely and irrecoverably death-stricken by a Paludal Fever, quinine can no more avail to put the fever out than all the fire-engines in London can save a tallow factory which has been burning for an hour.

CEREBRO-SPINAL FEVER.

There were, at my hospital, some three cases of what much resembled Cerebro-Spinal Fever. In one, which occurred in my colleague's ward, there were, I understood, most of the leading characteristics of that fever. I had under my care a little boy who recovered. The symptoms were not unquestionable, but there was marked stiffness of the neck. There was no evidence of contagion or of the existence of an epidemic; and my friend Dr. Joseph Ewart, who had then charge of the Calcutta General Hospital, did not see a case either at that time or during the whole period of his large Indian experience. I have recently made inquiry of three other eminent brother officers, whose long observation extended over the whole of the Bengal Presidency. Dr. Edward Goodeve and Dr. Theodore Duka watched sedulously for this disease, but never saw it in India. Dr. John Macpherson had one very suspicious case in an East Indian girl in Calcutta, but no more. I think that the disease belongs to India, and I was always upon the look-out for it after my case occurred.

I am not aware of the existence of any report of an outbreak of Cerebro-Spinal Fever in India.

(To be continued.)

INDUCTION OF PREMATURE LABOUR IN A CASE OF DEFORMED PELVIS:

SUCCESSFUL DELIVERY: SUBSEQUENT DEATH FROM LOCAL PERITONITIS AND CELLULITIS.

By T. W. H. GARSTANG, M.R.C.S., L.S.A.,

Fellow of the Obstetrical Society; late Resident Midwifery Assistant at St. Bartholomew's Hospital.

C. B., aged twenty-five, applied at the out-patient room of St. Bartholomew's Hospital on November 23, 1878, under the following circumstances:—She had been married five years, and had had three children. The first child was born without assistance, but dead, and was probably premature. The second child, also dead, and probably premature, was brought into the world by the forceps. In her third confinement she came under notice at the hospital. She was at full time. Dr. Godson attended her, and was able to deliver her only by the performance of craniotomy. The patient made a good recovery. This was in March, 1878. She now stated that she was pregnant for the fourth time. Her last catamenial period was May 24, 1878. On examination it was found that the promontory of the sacrum, projecting forward, considerably narrowed the brim of the pelvis. I believe external measurements were taken, but I cannot now find the record of them. It was decided that labour should be induced prematurely at about seven months and a half; and the patient was told to apply at the hospital again about the middle of January. She presented herself on January 18, 1879. Acting under Dr. Godson's instructions, I attended her at her home on the evening of the same day, and without any difficulty gently introduced a catheter into the uterus. The catheter was an ordinary flexible one, about twelve inches long, which had never been used before, and which, previous to its introduction, was well steeped in a weak solution of carbolic acid. The operation was followed by no hæmorrhage or other discharge of any kind, or any symptoms of pain or discomfort. The patient was left, with instructions to send for me as soon as she felt anything like labour pains. To my surprise, I heard no more of her during the next twenty-four hours, and consequently visited her again on the evening of the following day, January 19. She had meanwhile kept her bed, and the catheter had produced no symptoms whatever. On examination, I found that it had been partially expelled; about nine inches remained in the uterus, about three inches in the vagina. It was gently replaced, and a medium-sized Barnes's bag was introduced into the cervix and dilated with water. She was then left again, quite well, though rather nervous and excited.

On the morning of January 20 I visited her again, and found that the bag had just been expelled by a labour pain. She now complained of slight local tenderness, and I allowed the inhalation of a few drops of chloroform before removing the catheter, which was then done with perfect ease. She was left for about three hours, during which time she had regular pains. At midday I discovered that she had had slight but persistent hæmorrhage during this interval. Not being satisfied with the progress of the case, I sent for Dr. Godson, who visited the patient with me at 2 p.m. He believed her to have partial placenta prævia, and found that a shoulder was presenting. It was decided to conclude the labour at once; and I therefore administered chloroform, while Dr. Godson turned and delivered. There was some difficulty in delivery, but hardly so much as had been anticipated. The child was dead; cause of death not discovered. The placenta was removed within a few minutes, and it was then found that a small patch, about the size of a shilling, had been over the os internum, and had been the source of the hæmorrhage. No hæmorrhage followed the conclusion of the labour, the uterus contracted well, and the patient was left quite comfortable. All seemed to go well for the next day or two, but afterwards the patient began to complain of repeated slight "shiverings," though not of distinct rigors; and her temperature, which was frequently taken, did not rise above 99°. There was no pain in the abdomen, and the lochia continued apparently natural. Still the patient was restless, and evidently ill at ease; but this was put down to mental disturbance, as there was a story of a personal struggle between herself and her nurse, who had got drunk and assaulted

her. There were no further grave symptoms, and during the next few days she seemed to get quite well; the case was looked upon as successfully terminated, and was left in charge of the midwifery clerk in attendance.

On the evening of January 31, eleven days after delivery, a high temperature—viz. 101° —was for the first time noted, and was reported to me; and, on visiting the patient myself on the morning of February 1, the thermometer in the axilla showed 105° . The same day I admitted her into the hospital, as her home was a miserable room, where it was impossible for her to receive proper nursing or attention, or even to be kept properly clean. She performed the journey (about a quarter of a mile) wrapped in blankets in a cab.

February 1.—On admission, at 4 p.m., she seemed very ill. Her pulse was 120, respirations 38, temperature 102.6° . It is found that she has had a recurrence of the "shiverings," and that lately she has been delirious occasionally at nights. She has no appetite, has vomited once or twice, and now complains of pain in the abdomen so intense that a physical examination is impossible. The lochia have ceased. Her heart-sounds are normal; the breath-sounds are harsh, but

without any evidence of bronchitis or pneumonia. Bowels open three times.

2nd.—10 a.m.: She has passed a poor night. The long tube of a Higginson's syringe was introduced into the uterus, and that organ well washed out with a weak solution of carbolic acid. The uterus was found large. The stench of the washings was unbearable. Temperature 103.4° . At 4.30 p.m., after a distinct rigor, which lasted three-quarters of an hour, her temperature rose to 106.2° . At 8 p.m. it had sunk to 102.6° ; and at 10 p.m. was 101° , with pulse 120, and respirations 36. She took a large quantity of milk and beef-tea during the day, and seemed distinctly better at night. Her uterus was again washed out; foetor hardly perceptible. She still has intense abdominal tenderness. She has been taking three grains of quinine four times a day, and half a grain of opium every eight hours.

(Note.—The variations in temperature continued so many and so startlingly rapid that it would be wearisome here to recount them all. They are shown on the accompanying chart, and I will therefore here merely refer to the maximum and minimum points.)



3rd.—Patient had a fair night; no further rigor. Urine acid, 1012; contains no albumen, blood, or sugar. 10 a.m.: Violent rigor. Temperature 106° . Some subsultus tendinum noticed afterwards. 10 p.m.: Seems much better. Temperature 98.4° . Has taken three pints of milk, a pint and a half of beef-tea, and two eggs during the day. Administration of opium continued; half-drachm doses of Warburg's tincture given, instead of the quinine. 11 p.m.: Violent rigor, lasting three-quarters of an hour.

4th.—2 a.m.: Temperature 106.2° ; pulse 140; respirations 80. 10 a.m.: Temperature 98.4° . This morning is losing blood of a bright colour. Has taken two pints of milk, one pint of beef-tea, and four ounces of brandy during the night. Bowels open this morning. 1.40 p.m.: Rigor. 2.15 p.m.: Physical examination by Dr. Matthews Duncan:—Belly natural, except great tenderness above left Poupert's ligament. Discharge natural, without foetor, and in moderate quantity. Per vaginam—rectum loaded with faeces. Cervix uteri high up, far back, and displaced to the left; feels fixed. 3 p.m.: Temperature 106.5° ; pulse 120; respirations 40. Two grains of pil. hydrargyri added to each half-grain

dose of opium. Ten grains of salicylate of soda given every hour, in place of the Warburg's tincture.

5th.—4.45 a.m.: Rigor. 8.30 a.m.: Temperature 106° . 12.30 p.m.: Rigor. 3 p.m.: Temperature 103.5° . 9 p.m.: Temperature 99.2° ; pulse 110; respirations 50.

6th.—10 a.m.: Respirations laboured; pulse weak; sordes on lips; deaf; no pain; salicylate discontinued. 11 a.m.: Temperature 100.6° ; pulse 84; respirations 40; pupils much contracted. Says she "feels all right"; no pain. 8 p.m.: Has been delirious most of the afternoon. 10 p.m.: Breathing very laboured. 12 midnight: Pulse failing. Temperature 101° ; pulse 120; respirations 60.

7th.—Last night was delirious, and tried to get out of bed. A hypodermic injection was given of a sixth of a grain of acetate of morphia. Was quite quiet till 3 a.m., when she began to moan, and gradually grew worse. At 5 a.m. tried to speak, but failed. No rigors or vomiting. At 6 a.m. the pulse was feebly fluttering, varying momentarily from 120 to 180. Respirations about 36, very laboured. Heart-sounds quite natural. Nothing abnormal heard in the lungs but a little sibilus. Thirst has continued intense. Died very

quietly at 7.30 a.m. Temperature had risen suddenly and rapidly for six hours, and at death was 108.6°.

A post-mortem examination of the body was made on February 8, twenty-nine hours after death. Body well nourished; abundant subcutaneous fat. Tibiæ dasypine, and feet ill-shaped. Chest: Lungs normal. Heart pale, very soft, its fibres exhibiting well-marked granular change and loss of striation; valves normal. Abdomen: Liver very soft, enlarged. Spleen four times normal size, exceedingly soft. Pancreas, stomach, and intestines normal. No general peritonitis. Pelvis: Three collections of pus were found; one was in a cavity bounded by the left ovary, the uterus, and above by a piece of omentum. This contained half an ounce of pus. The surface of the ovary was ulcerated where it formed the wall of the pus-sac. The ovary itself was enlarged, and its corpora lutea contained pus. Another collection of pus was in the tissue to the right of, and a little behind, the cervix uteri, and contained the same quantity of pus. The third was in the right ovary, which was enlarged, and was simply a bag of pus. The walls of the uterus were flabby. The decidua serotina was easily seen. There was no lymph in Douglas's space. The kidneys exhibited "cloudy swelling." Bladder and ureters normal. Pelvis removed for maceration. Measurements of bony pelvis:—Brim—antero-posterior diameter $3\frac{1}{8}$ in., oblique diameter $4\frac{3}{4}$ in.; Outlet—antero-posterior diameter $3\frac{5}{8}$ in., interspinous diameter $4\frac{1}{4}$ in.

Remarks.—The actual measurements of the pelvis show that the induction of premature labour was perfectly warranted. The post-mortem examination showed no lesion as a result of the operation. It would perhaps have been better had the Barnes's bag been introduced coincidentally with the catheter—i.e., twenty-four hours earlier than was actually the case. The inflammatory action, which terminated fatally, was probably set up by the private and family circumstances of the patient, over which, of course, the medical attendant had no control. I believe that the rigors, with high temperature, had been occurring for some time before they were actually observed. The patient was never visited less than twice a day; and the observations on her temperature, recorded while she was in the hospital, show how easily the sudden elevations might be missed. That they were so missed, probably for some days, is an unfortunate coincidence, but I do not see how it could have been avoided.

I have to thank Dr. Matthews Duncan and Dr. Godson for permission to publish my notes of the case; and also Dr. Norman Moore for the use of his notes of the post-mortem.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

CASE OF SEPTIC PNEUMONIA, WITH THROMBOSIS OF UTERINE VEINS, INFERIOR VENA CAVA, AND RIGHT FEMORAL VEIN, ETC.

(Under the care of Dr. DUFFIN.)(a)

[For the following notes we are indebted to Mr. F. Willcocks, M.B. Lond., Medical Registrar to the Hospital.]

Ann W., aged thirty-eight years, was admitted into King's College Hospital on June 16, 1879. She had been married thirteen years and had seven children, five of whom were born dead. On April 23 last (nearly two months previous to her admission) the patient was delivered of a dead child, the labour being quite natural. Some eight months since, in consequence of a strain, the uterus became prolapsed, but could be easily reduced—this condition being accompanied by a slight sanious discharge. She had lived badly of late, but had had no previous serious illness.

On June 16 last the patient presented herself at the outpatient department, complaining of cough and shivering, with diarrhoea, great thirst and anorexia. She was slightly delirious; the temperature in the axilla was 102° Fahr. There was an offensive discharge from the vagina, the uterus

being in a state of prolapse, and an ulcer had been formed on the vaginal wall by the pressure of the anterior lip of the uterus.

June 17.—At 3 a.m. she had a slight rigor, which lasted about five minutes, and was followed by profuse sweating, the temperature in the rigor being 102.6° Fahr. In the axilla the temperature fell at 11 a.m. to 100° Fahr., but rose again at night to 104.4° Fahr. The wandering and diarrhoea continued, the motions being light-coloured. Fine crepitation was now audible over the whole of the lower lobe of the left lung; there was slight dulness on percussion over the same area. On the left side pleuritic friction was heard; the heart-sounds were muffled, but there was no bruit. A mixture containing ether and ammonia was prescribed. Brandy was given frequently, and injections containing Condyl's fluid were ordered to be used for the vagina.

18th.—The temperature at 1.30 a.m. was 101° Fahr., but rose at 11 a.m. to 104° Fahr.; respirations 52; pulse 120. There was absolute dulness for a hand's breadth at the extreme left base, but comparative dulness only over the upper portion of the lower lobe. Bronchial breathing was audible down the left side of the vertebral groove, with crepitation over the whole left lower lobe. Patient has remained delirious and has had frequent diarrhoea. In the evening her temperature was 104.6° Fahr.

19th.—Temperature in morning 102.2°; respirations 44; pulse 120. There was a slight rigor at 2 a.m. lasting for a few minutes, the temperature in the rigor being 102° Fahr. The temperature in the evening was 101.6°; respirations 36; pulse 112. The physical signs remained unchanged.

20th.—She slept fairly well last night and appeared better this morning. Temperature at morning visit was 97° Fahr.; respirations 44; pulse 108. At 8 p.m. she had another rigor lasting five minutes, the temperature in the rigor being 102.4° Fahr. At 8.25 p.m. the temperature was 105.8° Fahr. At 9.15 p.m. it had fallen to 100° Fahr.; this fall was accompanied with profuse sweating. The sputum has to-day been frothy and tinged with blood.

21st.—Patient has slept well. The morning temperature was 99.8° Fahr.; respirations 44; pulse 120. She complained less of pain in the side. The diarrhoea continued, but with no abdominal pain. The marked dulness at the left base, with comparative dulness over the upper part of the left lower lobe, remained. Rhonchi and crepitation were audible along the posterior axillary border; and tubular breathing and longish crepitant sounds over the left base and along the vertebral groove. Fine crepitation was heard at the mid-dorsal region of the right side. There was slight tenderness over the liver. There has been no pain or swelling in the joints. The tongue has been glazed and beefy-looking. Another rigor occurred from 3 p.m. to 3.15 p.m. Temperature at 3 p.m., 102.2° Fahr.; at 3.45, 103.8°; at 4.15, 105°; at 5, 102.2°; at 5.30, 103.8°; at 7.15, 103.4°; and at 8.45, 102.8°. The bowels have been relaxed, having been open seven times to-day; there has been no melæna. Ten grains of sulphate of quinine ordered every two hours.

22nd.—She has slept slightly; has been muttering a good deal, and sweating freely. The right foot, leg, and thigh are swollen. Morning temperature 97.4°; respirations 28; pulse 120. Evening temperature 100°.

23rd.—The temperature has ranged to-day from 98.8° Fahr. to 101° Fahr.; respirations 32; pulse 128. The quinine has been ordered to be given in ten-grain doses every four hours. Extractum belæ liquidum has been ordered in drachm doses every four hours, if necessary, to control the diarrhoea.

24th.—She has slept fairly. Morning temperature 100° Fahr.; respirations 40; pulse 103. Evening temperature 103° Fahr.; respirations 32; pulse 136. The diarrhoea persists; there have been four motions to-day.

25th.—The dulness at left base had almost disappeared. There was some loose crepitation over both bases. Temperature in morning 100° Fahr. A mixture containing a drachm each of tr. kino and tr. krameria and decocti granati to half an ounce was ordered to be taken every four hours. The quinine was ordered to be given three times a day in the former doses.

26th.—Morning: Pulse 136; respirations 44; temperature 102.6° Fahr. The tongue was dry and brown; there was some subsultus tendinum, with sordes on the lips and gums. The right leg remained swollen. Evening: Pulse 148; respirations 44; temperature 104.8° Fahr. There was crepitation all over the lungs.

(a) The patient, who was at first under Dr. Playfair's care, was subsequently transferred to Dr. Duffin.

Last week we gave a detailed report of the evidence of Professor Turner, of Edinburgh University, and of Dr. Haughton, of Trinity College, Dublin. We were then unable to comment upon the answers of the latter witness, with whom our present notice shall therefore begin. He has represented the University of Dublin for only a brief period in the Medical Council, and during the greater part of his examination he spoke rather as the mouthpiece of the medical school of his University than as one who had formed definite opinions of his own from personal experience and observation on the subject in hand. His answers differ very much, in several important particulars, from those of the previous Irish witness, Sir Dominic Corrigan. In our present issue our readers will find a full account of the evidence of Mr. Hart

and of Dr. Andrew Wood. The former of these, as might have been expected, expressed a general concurrence with the views of Dr. Waters. He was very severe in his strictures on the general feebleness and incapacity of the Medical Council in its dealings with the licensing bodies. The evidence of Dr. Andrew Wood was given with the clearness, readiness, and decision which were to be expected in one who knew thoroughly and practically what he was talking about, and who, as a member of the Medical Council and chairman of the Business Committee from the beginning, has earned for himself a very high reputation for deliberative and business capacity. We must content ourselves with noticing here, on the present occasion, the evidence of Dr. Haughton and of Mr. Hart, reserving Dr. Wood's for next week.

Dr. Haughton began by giving an account of the medical school connected with the University of Dublin. It is technically called the School of Physic in Ireland, and is under the joint management of the University of Dublin and the King and Queen's College of Physicians—a dual government which the witness said had been found to work satisfactorily. The school, after a successful start, had become very unpopular until within the last fifteen years. At one time the number of medical students attached to it had fallen to thirty, but there were now about 300. Most of the students of the school were students in arts as well, graduation in arts being necessary before obtaining their medical degrees. To those who had not graduated in arts, licences were granted after professional examinations identical with those undergone by graduates. Like other universities, the University of Dublin aimed at educating, not the rank and file, but the higher classes of the medical profession.

In regard to the proposed conjoint scheme, Dr. Haughton was authorised to state that the University of Dublin was in favour of any scheme that would secure a safe uniform minimum standard of qualification; and it had formally expressed its approval of the conjoint scheme proposals originally brought forward by the Lord President, before they had been modified by Lord Emly's amendment, which transferred from the Branch Councils to the General Medical Council the duty of taking the initiative in framing a conjoint scheme for each division of the kingdom. The witness was of opinion that the Lord President's original proposals would be attended with least trouble and difficulty in practice, and he did not anticipate there would be insurmountable obstacles in Ireland if the conjoint scheme were made compulsory. He was aware that there were infinitely greater difficulties in the way in Scotland than in England or in Ireland; and even in regard to the latter, he had to confess that the different bodies had already made serious attempts at the formation of a conjoint examining board, which had ended in complete failure over the inevitable money question. The witness entirely agreed with Professor Turner, that the examinations of any conjoint board that might be framed should be restricted, in the case of university students, to the practical and clinical subjects of medicine, surgery, and midwifery. He strongly objected to the clause, framed in the interests of women, allowing persons to be placed on the Register without their being affiliated to any of the ordinary licensing bodies, because the very wholesome influence of these bodies could not therefore be exercised upon offenders. There were already a sufficient number of portals to the profession open to women, and more might be added.

In regard to the General Medical Council, Dr. Haughton thought that there was no cause for congratulation over its performances. He certainly did not think that the undoubted advance in medical education during the last twenty years was mainly due to the action of the Council. His University was in favour of the direct representation

of the profession in the Council, in the belief that the influence of the latter, which had undoubtedly lost the confidence of the profession, would be thereby strengthened, though it was quite possible the actual gain might be disappointing to all parties, including the electors themselves. He also thought it ought to be considered whether medical schools not connected directly with any licensing body had not a claim to representation in the Council. We agree with Dr. Haughton in his opinion that the present members of the Council, perhaps on account of their very eminence, are more likely to be affected by the traditions of the past than by the practice and needs of the present, and we have ourselves lately pointed to several instances where some of the most eminent of them have expressed themselves before the Select Committee so as to display great ignorance of the existing conditions, absolute and relative, of certain of the teaching and licensing bodies. Dr. Haughton thought that it would be impossible to pass a Medical Bill which did not provide for direct representation.

He also felt strongly—and rightly, we think—that too much money was spent by the Medical Council for the payment of the members. He would compel the Crown and the various corporations to pay their nominees, whereby the Council would have sufficient funds to carry on the very important work of the inspection of schools and of examinations, which he thought ought to be its chief duty in the future, though it had been neglected so much in the past through the lack of funds. He would not give the Council larger powers, or wider duties than it had at present, if its constitution were to remain unaltered. Though he was not satisfied with the results of the work of the Medical Council, he did not think, speaking in reply to Dr. Lush, that it would be wise to abolish it altogether, and transfer the entire charge of medical education, as of other education, to the Privy Council.

We cannot agree with Dr. Haughton in his expectation that the tendency of the compulsory establishment of a safe and uniform minimum qualification by means of conjoint boards will not be prejudicial to the higher education of medical men. The fact that that minimum grade would be, as it were, officially recognised as perfectly satisfactory for all practical purposes would have the inevitable result, we think, that fewer men than under existing conditions would be prepared to spend the additional energy, time, and money necessary to secure the higher diplomas. In cross-examination by Dr. Lyon Playfair, Dr. Haughton admitted that the conjoint scheme was only one method, though he thought the cheapest one, of securing the desired safe minimum proficiency; but the end might also be secured, though at greater expense, he thought, by the regular inspection of schools and examinations, for which, however, if his proposals in regard to the payment of the members of the Medical Council were carried out, there would be very much more funds available than at present.

Mr. Ernest Hart, editor of the *British Medical Journal*, and Chairman of the Parliamentary Bills Committee of the British Medical Association, gave evidence, as we have said, similar to that previously supplied by Dr. Waters. It will, therefore, be unnecessary to dwell upon his answers at great length. He began by complaining of the inefficient manner in which the rights of the public and of properly qualified men had been attended to in respect of registration. The Act had proved quite insufficient to protect the public from being imposed upon by quacks, and the General Medical Council had neglected the duty of prosecuting such impostors. He did not object to people consciously consulting quacks, but he did object to the great liberty allowed to the latter at present to take various designations calculated to mislead the public. As the penalties for such prosecutions

came to the Council, he thought that that body ought to have taken measures to protect the public and registered practitioners; and any new Act should, he suggested, expressly impose this duty upon the Council, which they said was at present both beyond their province and beyond their pecuniary means to discharge.

As regards the constitution of the Council, he thought it urgently required revision, both on the theoretical ground that at present only the licensers, and not the licensees, were represented, and on the practical ground that the Council had avowedly lost the confidence of the profession. He brought forward the evidence adduced already in proof of the latter statement, and he repeated the objects which the British Medical Association had in view in urging the necessity for direct representation. Though he would admit that the non-fulfilment of some of its duties by the Council had been due to its having only recommendatory powers, he thought its very constitution had been a main cause for the timidity and leniency which it had exhibited in dealing with the various licensing bodies. He was certain if it had contained a fair proportion of representatives of the mass of the profession, the wishes of the latter, as distinct from the interests of the corporations, would have received the attention they deserved. The eminence of the members of the Council meant eminence often in a certain special sense, but was frequently not associated with knowledge of the feelings and wants of the profession at large. They had always treated the licensing bodies too tenderly, and these, in their turn, had systematically ignored the recommendations of the Council. We must say, however, that some of the examples brought forward in proof of this statement were not happily selected. The witness also got into some difficulty in maintaining that it was the express duty of the Council at the outset to frame a detailed code of the minimum satisfactory curriculum of study, and in seeming to assert that the Council had accurately timed its sittings to correspond with the funds in hand available for the members' fees.

He was of opinion that the Council would in every way be more efficient if it sat without fees at all, as was the case with the Council of the English College of Surgeons, and with the Council and Committees of the British Medical Association, which the most eminent men through the kingdom were found quite willing to attend without payment at all. Any committees of the Medical Council charged with continuous work might receive some small remuneration. He thought the Council should undertake, by means of a Parliamentary Committee, the duty of watching all legislative proposals affecting medical interests. He was also of opinion that it ought, in the future, to provide for the systematic and continuous visitation of examinations.

In regard to direct representation, he also recalled a proposal suggested at first by Mr. Simon, that the Branch Councils might be elected directly by the medical profession and the licensing bodies in each division of the kingdom, and that from each of these three representative Branch Councils two representatives should be sent up to form the General Medical Council, in which there might be also four Crown nominees.

In regard to the necessity for securing a uniform minimum qualification, he thought that could be done by one of three methods—(1) by a conjoint board, (2) by the Medical Council instituting systematic visitations of examinations, and demanding a satisfactory double qualification before registration; or (3) by the institution of a State examination subsequent to, and independent of, the existing licences and degrees.

In cross-examination, the witness pointed out the anomalous character of the present constitution of the Council, from the very unequal character and extent of the electoral

bodies. He did not think the cry for direct representation of the profession could be met by the extension of the franchise within the different licensing bodies. He thought it would be very unwise to attempt legislation which did not provide at the same time for a satisfactory minimum medical qualification, for direct representation, and for increased powers to deal with quacks.

As we have already intimated, we have reserved till next week our notice of the important evidence of Dr. Andrew Wood. The evidence itself is reported in another column.

THE USE OF THE FORCEPS.—II.

WE must, on the present occasion, begin by regretting an uncomfortable printer's error in Dr. Barnes' address. The well-known name of Dr. Radford, of Manchester, appeared as *Retford*, who to many would seem a new authority on the subject. We regret it the more as Dr. Radford's name is so well known in connexion with the use of the forceps. Now to our text. In the number of this journal published on July 26 we expressed an opinion on the advisability of more frequently using the forceps when the head is in the pelvic cavity, and its progress only retarded by feebleness of the uterine efforts. We propose now to comment on the use of forceps when the head is high up, or the os uteri not completely dilated. It is this practice with which Dr. George Johnston's name is associated. He has advised it, has practised it upon a large scale, and has published the results of his practice. Dr. Johnston did not in all his cases apply forceps before full dilatation of the os uteri. His figures embrace also cases of the slighter degree of difficulty and risk to which Dr. Playfair's advocacy of the frequent use of the instrument is restricted. This inclusion of cases of different kinds prevents us from taking the results obtained as representing the risk incurred by using forceps when the head is on the perineum. Yet, in so far as the figures overstate the mortality of the low operation, it is manifest that they understate that of the high one.

Dr. Johnston's statistics form one of the most valuable contributions ever made to the literature of the forceps. It is not merely because their number—7862 cases, extending over a period of seven years—is large enough to prevent mere temporary or accidental causes from influencing the general result: they have an especial value, because the cases from which they are derived occurred in an institution (the Rotunda Hospital, Dublin), the statistics of which have been published for a series of many years, and the practice and arrangements of which have been supervised by obstetricians of great eminence. Now, it happens that from 1826 to 1833 Dr. Collins was Master of the Rotunda Hospital, and this great obstetrician used forceps very rarely—once in 608 deliveries. Dr. Johnston used them once in ten. Therefore we here have the two extremes of practice with relation to the use of forceps.

The statistics of these two Masters of the Rotunda Hospital seem to be exactly comparable—the same hospital, patients of the same nation and the same class. Such differences as there were, all appear in favour of Dr. Johnston's patients. From 1826 to 1833 Dr. Collins had in hospital 16,414 cases; while from 1868 to 1875 Dr. Johnston had only 7862. It is therefore clear that, the hospital remaining of the same size, and assuming that under the later Master the number of beds in each ward was a fair and proper complement, the hospital must in Dr. Collins's time have been much overcrowded. This inference is supported by the fact that under Dr. Collins's mastership there was an outbreak of puerperal fever. No such thing occurred under Dr. Johnston's management. Surely, also, some lessons have been learnt in sanitation and in the treatment of disease during the

thirty-five years which separated Johnston from Collins. In these points, then—the absence of overcrowding, freedom from the puerperal fever contagion, and enlarged medical and sanitary knowledge—the advantages which Dr. Johnston's patients enjoyed might have been expected to make his mortality lower. But the conditions were the same in every other respect but this: that Dr. Collins left his cases largely to nature, using forceps only once in 608 times, while Dr. Johnston interfered frequently—once in ten times—and early; often before the os uteri was fully dilated.

The only way to judge these different kinds of practice is to compare the results of the whole number of cases. It is misleading to compare forceps cases with forceps cases. This was pointed out by Dr. Kidd in the discussion which took place in Dublin upon Dr. Johnston's report. The less the need for the operation, the simpler it becomes. One who restricts the operation to really difficult cases will of course have a larger proportional mortality, in his few forceps operations, than one who uses the instrument in a great number of simple cases. Dr. Johnston says, "Our established rule is, that so long as nature is able to effect its purpose without prejudice to the constitution of the patient, danger to the soft parts or the life of the child, we are in duty bound to allow the course of labour to proceed. But as soon as we find the natural efforts are beginning to fail, and after having tried the milder means for relaxing the parts or stimulating the uterus to increased action, and the desired effects not being produced, we consider we are justified in adopting prompter measures, and by our timely assistance relieve the sufferer from her distress and danger, and her offspring from an imminent death. . . . The more we consider the benefits arising from timely interference, and the good results which follow it, the more we are induced to pursue the system we have adopted." We quote this to point out that it begs the question at issue. It has long been agreed that if mother and child are in imminent peril it is proper to interfere. What needs proof is, that foetal and maternal life really are so often in danger as in Dr. Johnston's practice it is assumed that they were. The question is not whether, in really difficult cases, the early use of forceps gives a better result than the late resort to them; but whether, in 10 per cent. of labours, the early use of forceps is better than letting the case alone.

We look to the Rotunda Hospital reports to see the result of the so-called "timely" interference. The figures answer with appalling clearness. The result of the practice has been to *more than double* the maternal mortality. At the rate of mortality which followed Collins's practice (1 in 100), Johnston should have had 78 deaths. He lost 169 patients—91 in excess of what might have been expected had the cases been treated on the principles of Collins. One patient out of every 47 died. Taking into consideration all the concurrent advantages which Johnston's patients enjoyed, this number is so large as to be terribly free from ambiguity. This death-rate demonstrates, in a manner which we hope it may never be necessary to repeat, the danger which the mother runs from the uncalled-for use of forceps.

But the practice is said to be partly justified by the number of foetal lives which it saves. It is difficult to speak with certainty about this, because Dr. Johnston has not made known the total foetal mortality of his practice. But Dr. Barnes, calculating the whole from a part, puts it at 6.1 per cent. The total foetal mortality of Collins's practice was 6.8 per cent. But Johnston does not include, in his statistics, all his premature deliveries, while Collins does. If we take out from the figures of Collins all those born at or below six months, his foetal mortality is brought down to 6.2 per cent.; and if we exclude from it all those born before full term, it is lowered to 5.1 per cent.—a ratio below that of

Johnston. And this is not all. It will occur to every obstetrician that one who used the forceps so seldom as Collins did probably, more often perforated. And such was the fact. Collins perforated 118 times, or once in every 141 cases. Johnston resorted to it only 23 times, or once in every 281 cases. It may, therefore, be presumed that some of the children destroyed by Collins might have been saved by a proper use of forceps, or by turning, and thus his foetal mortality been reduced still further below that of Johnston. The conclusion follows, that the frequent use of forceps by Dr. Johnston slightly increased the foetal mortality.

There is one other result which demands attention. It is the effect of forceps upon the child after delivery. Of the children delivered alive by forceps under Johnston, one out of every 11.5 died soon after birth. Of those born alive under Collins's management, only one out of every 58½ died before the mother left the hospital. The difference is great and, we think, important. This part of the subject is one which needs careful consideration.

Dr. George Johnston deserves the greatest praise and the warm thanks of the profession for having so fully and so boldly published the result of the great "experiment" (as Dr. Roper termed it) which he has carried out in the Rotunda Hospital. His figures show, beyond doubt, that the effect of the too frequent use of the forceps is to largely increase maternal mortality; and such effect as it has upon foetal mortality is to slightly increase that also. The only thing we note with some surprise is, that Dr. Johnston does not seem to see what his own figures prove.

There are other points to which we might advert, such as the state of the perineum after forceps; but space forbids us. We cannot conclude without expressing our sense of the importance and value of the speech of Dr. Roper, in which he subjected the practice of Dr. Johnston to perhaps the most searching criticism it has yet received. The figures we have quoted deserve to be carefully pondered by every practitioner of midwifery. We hope the published results of Dr. Johnston may tend to check any tendency to over-meddlesomeness. We have the broad fact before us, resting on an experience of seven years, that too frequent interference with forceps has more than doubled maternal mortality, and probably increased foetal mortality. To have set this in relief is perhaps the best result of the recent discussion. It must also be remembered that, in comparing Dr. Johnston's maternal mortality with that of Dr. Collins, we are taking for comparison a series of cases in which probably the forceps was used too seldom, and the perforator too often, and the mortality of which was moreover raised by an outbreak of puerperal fever, and is in fact above the average childbed mortality. If we were able to take for comparison a set of cases treated in the best manner, and under the most favourable conditions, Dr. Johnston's figures would show to still greater disadvantage.

THE WEEK.

TOPICS OF THE DAY.

THE difficulties in the way of those who have to carry out the details of the Artisans' Dwellings Act are apparently insurmountable, and Major Munro, the chairman of the Finance Committee of the Metropolitan Boards of Works, who also represents the Whitechapel District at the Board, has openly stated that, in his opinion, the time has come when deputations from the different metropolitan districts should wait upon the Home Secretary in order to show him that his Act is unworkable as it now stands. He complains that much unmerited censure has been cast upon the Metropolitan Board for their seeming dilatoriness in carrying out the law, whereas that body have been doing their best to work

a thoroughly impracticable scheme. Moreover, the Act conferred upon the Home Secretary the power to appoint an arbitrator who should revise the claims of the various persons interested, and whose awards should be final; and the arbitrator appointed, Sir H. Hunt, had enormously over-compensated many of the owners, so that in the case of the Whitechapel and Limehouse scheme the amount of compensation paid was £54,000 more than the Metropolitan Board's careful estimate. He showed that if the Board were to go on with the thirty-one schemes already sanctioned and proposed to be submitted for sanction to the House of Commons, the total loss would be about £3,000,000, at the present estimates—equal to a rate of 1½d. in the pound on the assessments of the whole of the metropolis. Noble as was the conception of the Act, it had proved a great blunder, and he was surprised that, in preparing the measure, the Home Secretary had not taken advantage of the experience gained in Glasgow in a similar piece of legislation. The Whitechapel Board of Works, after listening to Major Munro's explanations, unanimously agreed to two resolutions—the first inviting Mr. Cross to procure the repeal of that clause of the Act which restricts the use of cleared spaces to the erection of artisans' dwellings only; and the second requesting the Metropolitan Board of Works to stay proceedings, as far as possible, under the Act, pending amendment of the law. The subject is sufficiently grave to have already enlisted the attention of Parliament, and in the House of Lords, last week, the Earl of Camperdown moved—"That no further improvements ought to be sanctioned until the principle on which compensation is awarded for property taken shall have been amended." This motion was, however, negatived, on its being explained by the Earl of Beaconsfield that notice had already been given in the other House of the introduction of a Bill to amend the Act, and that the desire of the Government was to improve the working of the Act in whatever way experience may have dictated. But as it is, of course, impossible that anything can be done this session, the dead-lock must continue for many more months.

A public meeting is announced to be held at Exeter Hall on the 6th inst., to consider the necessary steps to be taken to place the various water companies of the metropolis under unity of administration, so as to provide for a constant supply at high pressure, together with a system of hydrants for fire prevention. Cardinal Manning, Earl Granville, Sir Charles Dilke, M.P., Mr. Fawcett, M.P., Mr. E. J. Watherston, and Mr. Chadwick, C.B., are expected to address the meeting.

A military physician, M. Companys, who served in Algeria, and was engaged in the sanitary arrangements of the Suez Canal works, is about to be sent to the isthmus of Panama, for the purpose of ascertaining what measures will have to be taken for the preservation of the health of the labourers employed on similar works in that locality. Agents are to be appointed to select the labourers from among the inhabitants of South America best fitted for supporting fatigue in a tropical climate. M. De Lesseps has applied to the Emperor of Brazil for his co-operation in procuring the necessary hands.

Mr. W. Carter, one of the Coroners for Surrey, held an inquiry at the St. Saviour's Infirmary, Westmoreland-road, Newington, last week, as to the death of John William Marshall, of Winchester-street, Borough-market. Dr. Chas. Gross, Medical Superintendent of the Infirmary, deposed that he admitted the deceased on June 25 last, suffering from necrosis of a part of the skull. There were several sinuses leading down to some dead bone, which could be felt somewhat loose beneath the scalp. He deemed it necessary that an operation should be performed for its removal, and the

patient fully concurred. On the 19th ult. chloroform was administered, in the presence of two other surgeons, by Dr. R. Maples, assistant medical officer, in the usual manner on a piece of lint. Just as the patient appeared to get under its influence the heart stopped. Every means was adopted for his restoration, including galvanism, but without avail. Only about half a drachm of chloroform was used, and before it was applied the heart was examined, but nothing abnormal was discovered. The jury returned a verdict "That the deceased had met his death by misadventure from the inhalation of chloroform, which had been carefully and necessarily administered."

At the recent Hertford Assizes a case of considerable public interest was tried, in which Mr. Littler, Q.C., sought to recover damages against the Edmonton Local Board for bringing leaky and defective sewers through the ornamental grounds and under the streams and ponds of his residence, and thereby polluting the water on his property. The case for Mr. Littler was that his ponds were contaminated with sewage through the defective manner in which the pipes forming the sewers were joined together. The case for the Board was that the ponds had never been contaminated with sewage, and that the evil had arisen from their foul state; also that the pipes, when examined, were found quite tight, and that therefore no sewage had ever escaped from them. Lord Justice Baggallay, in summing up the case to the jury, explained that the questions for their consideration were, whether the sewer had been badly constructed, and, if so, whether it had been so by reason of the negligence of the Board or their servants, and whether sewage escaped from the sewer into the plaintiff's ponds through imperfect construction. As to the main question, he observed that it was admitted that the sewer had been badly constructed, and, if so, it was natural that sewage should escape from it. Eventually the jury gave a verdict for the plaintiff with £350 damages.

An outbreak of scarlatina is reported to have occurred at Newhaven, Sussex. Seven deaths were registered from it last week, and active steps are being taken to stamp out the disease in the locality. Acting upon the advice of the Medical Sanitary Officer, Dr. Fussell, of Brighton, the rector of the parish has announced his determination to close at once the national schools in the neighbourhood.

The annual report of the Nightingale Fund for the year 1878, recently made public, records results which must be highly satisfactory to the Council appointed to control its affairs. It will be remembered that this Fund was subscribed for the purpose of educating a certain number of women as trained nurses, and that the course of instruction is carried out at St. Thomas's Hospital. The Council have the satisfaction of being able to record in their report that several of their probationers have been selected to fill most responsible posts, one of them having been appointed Matron to the Lincoln County Hospital, and another Matron to St. Bartholomew's Hospital. The Council of the Nightingale Fund has recently been strengthened by the election of Sir William Muir, K.C.B., Director-General of the Army Medical Department, Sir William H. Wyatt, and Mr. William Rathbone, M.P., to serve as members.

It is a matter of congratulation that Mr. Ellison, the Lambeth magistrate, has acted decisively in a case recently brought before him, in which a sausage manufacturer was proved to have been in possession of a quantity of meat in an unsound and unwholesome condition. Dr. Farr, the Medical Officer of Health for Lambeth parish, visited the defendant's premises in company with an inspector, and found a quantity of pork and beef pickled in brine, but in such a disgusting state as to be almost poisonous if consumed

as human food. It was endeavoured to be shown for the defence that the meat in question was not intended for sale; but Mr. Ellison remarked that there was no doubt the horrible stuff found on the premises was about to be made up into polonies, which, if consumed, would have spread poison right and left, particularly among the poorer classes. This was certainly the worst case he had yet had brought before him, and he should therefore sentence the defendant to one month's hard labour, without option of fine. What would the worthy magistrate say to some of our epicures on the subject of venison?

Some of our readers may have observed the recent proceedings on the part of Dr. J. C. Phillips against the South-Western Railway Company. They will remember that he recovered the large sum of £7000 as damages for injuries sustained whilst travelling on their line. The sum was unusually large, and was noteworthy even on that account; but, considering the professional income earned by Dr. Phillips, it amounted to little, if anything, over a year's income. Dr. Phillips appealed for a new trial on the ground of insufficient damages. A new trial on that ground was granted. The Company appealed against this, but have been defeated; so that the case will go to trial again on the grounds above stated.

At a recent meeting of the Society for Promoting Legislation for the Control and Cure of Habitual Drunkards, Lord Shaftesbury in the chair, after congratulatory addresses on the success which had attended the efforts to pass the Habitual Drunkards Bill, an important resolution in favour of the establishment of typical institutions for the control and cure of habitual drunkards of all classes was unanimously agreed to.

The Council of University College has appointed Dr. Radcliffe Crocker Physician to the Skin Department of the Hospital, in succession to the late Dr. Tilbury Fox.

THE CASE OF DR. CORNELIUS FOX.

WE have already alluded to the injury done to this eminent member of the sanitary staff of the country at the hands of the Billericay Sanitary Authority, but the case is really worse than we then represented. Dr. Fox cannot even be reproached with *trop de zèle*,—he merely did his duty. The district is not one which lends itself easily to sanitary improvements: all the more reason why they should be persevered in, for in some portions of it the sanitary condition is lamentable. Diphtheria had for some time prevailed in two villages, one in the Billericay, the other in the Chelmsford district. Dr. Fox, who was Medical Officer of Health for the combined districts, reported, and, as usual, sent a copy of the report, just as it was read, to the Local Government Board. Attention was thus directed to the sanitation of the neighbourhood, and Dr. Thorne Thorne was sent down to inspect and report. By an account of what he encountered, given in a local newspaper, it was high time indeed that something should be done; but plainly that "something" would cost money. Then, apparently, the Local Sanitary Authority resolved to be revenged on Dr. Fox as the prime mover in this troublesome matter. So they gave him notice to quit, or rather resolved—on, as they alleged, motives of economy—to abandon the union, which offered men a fair income, and to appoint local men of their own. They have since advertised for two men, as medical officers of health, at salaries of £50 and £60 respectively, to look after the district. It is plain, on the very surface of things, that no independent man can accept such a post. It would be an addition to the income of one or other of the Poor-law medical officers, who, doubtless, having many other things to attend to, would be less troublesome and more easily cowed than Dr. Fox. But we would ask, Is it for the good

of the people who have to pay the money—the ratepayers themselves—is it worth their while to waste their money in having their work imperfectly done? The worst feature of all in the case is that the Local Government Board refused, as they well could do, to interfere, and thus prevent the disruption of the united districts. If this is going to be the case, good-bye to proper sanitary work, and this, too, from the Government whose motto is "*Sanitas sanitatum*."

DR. WOLFE ON THE DANGERS OF COLOUR-BLINDNESS.

DR. J. R. WOLFE, Surgeon to the Glasgow Ophthalmic Institution, and Lecturer on Oculistic Surgery in Anderson's University, has published in the form of a small pamphlet a paper read by him in March last before the Glasgow Philosophical Society, and published in our columns, on "Colour-Sight and Colour-Blindness in its Relation to Railway and Sea Signals." The very careful analysis which Dr. Wolfe had made of the whole subject deserved attention, and we had hoped that the dangers pointed out by such an eminent authority would have enlisted the attention of the Legislature or of railway and steam-packet companies' directors to the necessity of taking steps for insuring the safety of the travelling public in this direction. But although, as Dr. Wolfe remarks, in many continental countries the ventilation of this subject has resulted in Governmental interference, the hap-hazard theory so rife amongst ourselves has deterred any important body from coming forward to insist upon a satisfactory test being applied to those who, when we are travelling, have our safety so much in their hands, or, to speak more correctly, dependent upon a correct use of their eyes. Under these circumstances, we think it nothing less than our duty once more to notify the result of Dr. Wolfe's labours in ascertaining the extent to which the population of this country is affected by colour-blindness, and we quote the following remark in the faint hope that some one in authority may be induced to take up the subject for the protection of the public. Dr. Wolfe says: "From these statistics (which he gives in detail) we are entitled to assume that of all the *employés* on railways and at sea 3 per cent. are colour-blind, and 6·3 per cent. can perceive colours with difficulty; thus 9·5 per cent. ply their occupations amidst conditions approaching to uncoloured signals." On some railways Dr. Wolfe admits that there is an attempt at ascertaining a man's power of distinguishing colours, but he shows that the examination enforced is not satisfactory, and he submits that after careful trial he is of opinion that the only satisfactory test is to make the candidate for employment match certain colours from a heap of worsted skeins, each colour to be matched only when placed at a distance.

COLLEGIATE FINANCES.

FROM the annual report of the receipts and expenditure of the Royal College of Surgeons of England during the collegiate year from Midsummer-day, 1878, to Midsummer-day, 1879, it appears that the former amounted to £15,133 7s. 9d., derived principally from fees paid for diplomas of Fellow, Member, and Dentist, which amounted to £11,367 10s. Rents from chambers adjoining the College and dividends on stock produced £2484 19s. 10d. Elections into the fellowship, hitherto so productive, are represented by only twenty guineas. A similar sum appears also for elections into the Council. The interest on trust funds was £247 7s. 10d., more than half of which was derived from the Mr. Erasmus Wilson Trust Fund. The expenditure during the same period amounted to £14,878 11s., principally in fees paid to Council, Courts, and Boards of Examiners—viz., £5886 2s. Salaries and wages for the necessarily large staff of officers and servants for the three departments of College, museum, and

library are certainly moderate at £3915 19s. Taxes, rates, and diploma stamps absorb £1235 2s. 8d. Pensions are now by death-reduced to £54 12s. One important item is the increasing expenditure for bringing patients, etc., to the clinical examinations of candidates for the diplomas—viz., £193 16s. 11d. For the Hunterian Oration and Festival the sum of £305 7s. 4d. was paid; towards this expense the Hunterian Fund contributed nearly £100. For alterations, repairs, and painting there appears £1069 3s. 5d. Refreshments for court, prosecutors, and candidates are represented by the sum of £150 7s. 11d. Taking receipts at £15,133 7s. 9d., and expenditure at £14,878 11s., there appears a balance to the good of £254 16s. 9d.

THE LONG FORCEPS.

WITH regard to the use of forceps, Dr. Radford, of Manchester, sends the following interesting note:—"I was the first by several years to use the long forceps in Manchester. My first operation with them was during the first year after my election as Surgeon of the Manchester and Salford Lying-in Hospital, which was during the year 1818. The instrument Dr. Barnes referred to in his observations made to the Obstetrical Society, I sent him at his request, for him to make his remarks upon it. I had it made in 1825. It is constructed with parallel shanks, which, I believe, was the first so constructed. I had previously used Dr. Haighton's instrument, and the alteration was made to obviate the mischievous pressure which the lower pelvic structures had to sustain in the use of Dr. Haighton's instrument."

FROM ABROAD.

CASE OF DEATH FROM CHLOROFORM.

GEH. MED.-RATH PROF. DR. BARDELEBEN observes (*Deutsche Med. Woch.*, June 7) that until the year 1876 he had had the good fortune never to have met with a death from chloroform, although he had witnessed and participated in its administration in many more than 30,000 cases. During the ten years that he has directed the surgical clinic at the Berlin Charité, anaesthesia by chloroform has been induced at least 1200 times per annum; and at his former clinic at Greifswald (1849-68) the average number of cases was more rather than less than 1000. No notice is taken here of his cases in private practice. But in 1876 there occurred in his clinic four cases of death from chloroform, which were published by his assistant, Dr. Koehler, in the third volume of the new series of the Charité *Annalen*. In three of these cases, other circumstances besides the administration of chloroform might have contributed to the production of the sudden death. However, the resolution was at once taken, in order to be certain that only quite pure chloroform was employed, to use exclusively the chloral-chloroform, prepared with the greatest care in Schering's factory. This chloral-chloroform (to which, on the advice of O. Liebreich, 1 per cent. of pure alcohol is added on first opening the bottle, in order to guard against any possible decomposition) has ever since then been employed at the Charité, as it was in the case to be related. In fact, the chloroform used in this case was taken from the bottle which was employed in a whole series of cases, and the conviction was so strong that the mishap arose, not from any impurity of the chloroform, but from individual conditions which we have not yet mastered, that this same preparation has continued to be employed. How advantageously this chloral-chloroform differs from ordinary chloroform may be recognised without any aid from chemistry. If we drop some drops into the palm of the hand and rub this powerfully, either no smell at all remains or only that of chloroform, while if we do the same with ordinary chloroform there is not uncommonly an unpleasant smell left, resembling that of fusel oil.

The case to be now related is one of especial signification, because it is in every respect so uncomplicated. The chloroform was quite pure, and only twenty-two grammes of it were employed. The patient exhibited no organic defect that could have contributed to sudden death; the opera-

tion (stretching a contracted knee) was unattended with violence, wounding, or interference with the respiratory or circulatory organs; all precautionary rules were observed—the patient lying in the horizontal position, without compressive clothing, his stomach being empty. Suddenly the heart stops; and the most energetic procedures, instituted immediately, fail to recall life. The patient, a scrofulous lad, aged twelve, was admitted on account of a white swelling of the knee, with contraction to an acute angle. As it was deemed proper to stretch the limb, the lad was placed under chloroform two days after his admission—all the organs on examination being found in a normal condition. While Prof. Bardeleben was describing the case to the class, seven grammes of chloroform were administered under the direction of his assistant by means of the Esmarch mask. Like all children, he resisted at first, so that it is certain that all the chloroform did not reach the air-passage. When he had become more quiet, Junker's apparatus was substituted for that of Esmarch. This, especially intended for bichloride of methylene, Prof. Bardeleben finds very convenient and economical for chloroform, but employs it seldom at the commencement, owing to the relatively longer time (especially in restless children) which is required to produce insensibility with it. With this fifteen grammes more of chloroform were used—making twenty-two grammes in the whole, at the most. When the muscles began to relax the rectification of the joint was easily accomplished. A small chondroma was discovered attached to the upper part of the bones of the leg, and while this was being examined there occurred slight contractions of the flexor muscles, and the lad by screaming showed that he had become sensitive to pain. While about to resort to more chloroform during the application of the gypsum bandage it was found that the heart had ceased to act. A few seconds later the respiratory movements also ceased. The tongue was at once drawn out of the mouth, and an electrode of an inductive apparatus was applied to the region of the phrenic nerve in the neck, in alternation with the employment of artificial respiration by the postural method. Scarcely had two minutes elapsed when the lad again cried out, the respiratory movements recommenced, and the pulse could again be felt; so that it was believed that the application of the bandage was possible. The hope of this was soon dissipated, for the pulse and respirations speedily ceased again. The effects were actively resumed; and when compression of the thorax and faradisation of the phrenics were found to exert no influence on the diaphragm, rhythmical compression of the thorax, with alternate insufflation of air, was substituted. The autopsy proved how instrumental these combined means were in forcing air into the lungs, these appearing of a bright red colour, while all the other organs were filled with dark-coloured blood. After all these efforts had been pursued for half an hour without effect, and the body had become considerably cooled, all present pronounced the boy absolutely dead. Although in this stage of the case it would have been of no avail to make trial of the hypodermic injection of nitrate of strychnia, yet Prof. Bardeleben feels strongly convinced that in cases like this, in which death evidently takes place from primary paralysis of the heart, and not from asphyxia, besides every care being taken to keep the air-passages free, and to employ artificial respiration, the hypodermic injection of strychnia should also be practised, its efficacy as an antidote to chloroform having been made known to the Berlin Medical Society ten years since by Prof. O. Liebreich.

At the autopsy the principal circumstance observed was the great fluidity and dark colour of the blood. The veins and sinuses of the brain contained a great deal of blood, as did the tela and choroid plexus; and the vessels of the substance of the brain were also in a lesser degree distended. All the cavities of the heart, of which only the left ventricle was contracted, contained a considerable quantity of this dark fluid blood, not a trace of coagulum existing. None of the organs exhibited any diseased appearances.

DR. SIEVEKING is about to vacate his chair as Examiner in Medicine at the Royal College of Surgeons, consequent on his being appointed Senior Censor at the Royal College of Physicians. The nomination to fill the vacancy will take place at a meeting of the Council of the Royal College of Surgeons on Thursday next.

TWENTY-NINTH SESSION OF THE GENERAL MEDICAL COUNCIL.

HELD AT THEIR HOUSE, OXFORD-STREET, W.

SECOND DAY.—FRIDAY, JULY 18.

(Continued from page 98.)

THE PRESIDENT: We have now arrived at the time when it is my duty to inform the Council that the office of the President is about to become vacant. I will not occupy your time with many words in expressing to you my grateful acknowledgments for the confidence which you have reposed in me, and for the unceasing kindness with which you have accepted my endeavours to carry out your wishes during the last five years. In addition to this very sincere expression of my gratitude I wish to record that my duty towards you under the transitional state of business in the office could not have been discharged but for the great experience and constant care of the chairman of your Business Committee, Dr. Andrew Wood, and I must add to that the ability, zeal, and industry of your present Registrar. If I were to say less than this it would imply either great forgetfulness on my part or great injustice. Having said this, I now leave the chair and retire from the Council, without any adjournment on your part, in order that you may elect a President.

Dr. Acland then retired from the Council, and Sir James Paget was voted temporarily to the chair.

Before proceeding with the election of a new President, strangers were requested to withdraw, and the Council then deliberated in private.

On the admission of the public it was stated that Dr. Acland had been re-elected President. Having left the building, a messenger was sent for him, and on his return,

Sir JAMES PAGET, addressing him, said: Dr. Acland, I have great satisfaction in announcing that you have been elected President for five years. (Applause.)

Dr. ACLAND, in again taking the chair, said: I have the honour to return thanks to the Council for the favour which they have conferred upon me by again requesting me to fill the office of President. When they conferred that honour upon me five years ago I felt that it was the greatest honour which I could receive. I was not aware at that time of the extent of the responsibility; I now know it, and I deliberately accept the charge once more for such time as I am able to undertake it, in the belief that it is your desire that I should endeavour to carry out your instructions to the best of my ability. No man can do more than that. If there were one thing needed to convince me of the magnitude of the interests of this Council, the national duties which it endeavours to discharge, and the serious way in which it attempts to carry on its work, it would be the somewhat irrelevant discussion which took place on the subject of education this day. There is not the slightest doubt that the responsibilities of the Council are increasing year by year; and it is in full reliance on the support which I hope to receive from you that I presume once more to endeavour to serve you, and to continue my labours on your behalf to the best of my ability. (Applause.)

The ordinary business of the Council was then resumed.

Mr. MACNAMARA moved, pursuant to notice—"That in all questionable cases, where persons whose names have been removed from the Register under Section 14 of the Medical Act (1858), seek restoration, the Executive Committee, before complying with the request, shall put themselves in communication with the medical authorities whence the qualifications were originally derived." The motion, he said, was very much based on what had taken place in the Council with regard to Mr. Patrick Murray. It appeared that the Executive Committee had had that gentleman's case under consideration for several months. All the information that his College could derive on the subject was what was contained in two books that he held in his hand; and that information was so meagre that the College had not the slightest suspicion of what had actually taken place. Mr. Murray had stated in his letter that the matter had been known for eight years, that the offences had been considered by the Council and had been condoned, and that the College by its silence had assented to the condonation. The matter, however, had never come before the Council, and only before the Executive Committee, the most meagre information being afforded to the members of the Council. When for the first

time he heard something about the case from Dr. Rolleston, the enormity of the offence was so great that he could not grasp it. Subsequently the matter was brought under his notice by Dr. Smith, and he considered it his duty without loss of time to bring it under the notice of the Council of his College. At first the Council was inclined to be indignant with him for allowing them so long to labour under the disgrace of having such a person upon their rolls. Fortunately, he was able to exculpate himself, and the Council of the College passed a resolution expressing surprise that the Executive Committee of the Medical Council should have had evidence before it for so many months without giving any intimation of it to the Council of the College, and requesting their representative to bring the subject officially before the Medical Council at its next meeting. From a great deal that he had observed at the council-table he had come to the conclusion that the opinion largely entertained by several members of the Executive Committee was that the business of the Council would be admirably carried out if everything connected with medical legislation and registration were referred to them. They appeared to have such an opinion of their own infallibility that they had absolutely acted upon the case in question without once communicating any of the facts to the Council. They stated that the Council had no power of legislation; but they never thought it their duty to bring the matter to the notice of the aggrieved corporations who were disgraced by the retention of the name in question on the list of their licentiates. I think if they had done so the facts of the case would have been made known, and the name would never have been restored to the Register. It might be said that a great deal had been secured by the recent proceedings, and stress might be laid on the legal way in which everything had been done. He thought, however, that under the circumstances the Council need not have strained at that gnat; they might at once have postponed the consideration of the case and communicated with the colleges, and if the colleges did not take action the Council would have been exculpated. It had been stated that the Executive Committee had no right to give over its powers to another body. He did not ask anything of the kind; he only suggested that in all questionable cases the Executive Committee, before complying with the request of persons seeking restoration, should communicate with the authorities who had given the registered qualifications.

Dr. PRYMAN seconded the motion. He said he was not a member of the Executive Committee when the circumstances arose to which reference had been made; if he had been he should be prepared to take his share of any blame that might attach to them. It almost seemed as if the proposal were intended as a vote of censure upon the action of the Committee. However, nothing could be more reasonable than the suggestion it contained, that communications should be made to the medical authorities in all questionable cases.

It being within a few minutes of six o'clock, the usual hour of adjournment,

Dr. WOOD suggested that if the business of the Council was to be completed that day it would be necessary to move the suspension of the standing orders in order to sit beyond the customary period. If not, he would propose that the debate be then adjourned.

Dr. ROLLESTON moved the suspension of the standing orders in order that the Council might sit later and complete its business, but the expressions of dissent were so strong on the part of many members that the motion was withdrawn, and the debate was accordingly adjourned.

THIRD DAY—SATURDAY, JULY 19.

Dr. Acland, President, in the chair.

Dr. ROLLESTON asked permission to say a few words in explanation. He had on the previous day referred to the German *Staats Examen*, which was prolonged over a period of days, sometimes more than a week, and sometimes over several weeks, so that the student was kept under examination for a long time. Dr. Andrew Wood had stated that he had been informed by Mr. Turner that alterations had recently been made in the system. It was quite true that alterations had been made, but they did not affect the principle involved. Within the last few years the professoriate had reasserted itself, and now took part in the examinations. He had before him Billroth's book of 1876, which quite bore out his assertion.

The PRESIDENT said he was sorry to communicate to the

Council the fact that Mr. Simon, who had been elected a member of the Executive Committee, had found himself unable to accept the office. Under those circumstances he was authorised to state that Sir James Paget, who had asked to be excused from serving, would not, if elected again, express his inability to serve.

A ballot was then taken, and Sir James Paget was unanimously elected to the vacancy caused by Mr. Simon's withdrawal from the Executive Committee.

The adjourned debate on Mr. Macnamara's motion was then resumed.

Mr. MACNAMARA said he desired to withdraw his motion with the permission of the Council. He had been informed that the Executive Committee would act in the spirit of it. He was the last person on the Council who would desire to say or do anything to hurt their feelings; he entertained the highest respect for them individually, and he hoped he might be permitted to withdraw the resolution without any discussion.

Dr. AQUILLA SMITH said he hoped permission would not be given to Mr. Macnamara to withdraw his resolution. He had brought forward grave charges against the Executive Committee, and his resolution almost assumed the aspect of a vote of censure, and it would be a dangerous precedent to allow such a resolution to be withdrawn without giving an opportunity to members who desired to reply to the statements that been made.

After some discussion as to whether permission should be given to withdraw the motion, Mr. Macnamara, at the President's suggestion, withdrew his offer, and the discussion proceeded.

Dr. AQUILLA SMITH said that Mr. Macnamara, in his speech, had devoted very little time to the resolution, but had brought a very serious charge against the Executive Committee as embodied in a motion adopted by the Royal College of Surgeons in Ireland. That motion had been improperly introduced with a view of getting an expression of feeling on the part of the Council that the Executive Committee had not discharged its duties correctly. He hoped to be able to show that Mr. Macnamara was labouring under a great misapprehension. He (Dr. Smith) maintained that the resolution which had been proposed could not be carried into effect. The Executive Committee had no power or authority to investigate what were called "questionable cases." The resolution appeared to have been framed in consequence of the case of Patrick Murray. Many instances had occurred of persons names being dropped out of the Register; and all that was required for a man in such a position to be restored was to prove his identity. If the resolution were adopted it would impose an immense amount of trouble upon the Registrar, who would be required to write to the different bodies to know whether they had any objection to the persons named being restored, and that would occasion great delay. The Executive Committee had no power to enter into any inquiry as to the character of any person whose name had been removed from the Register under Clause 14. There was a case of Mr. Levenston, a Scotch practitioner, brought under the attention of the Council in May, 1877; and it was resolved that the Council declined to accede to Mr. Levenston's application to be restored unless he furnished satisfactory evidence of character. That was strictly a "questionable case." The matter was referred to the Executive Committee, who inquired into Mr. Levenston's moral character; but Mr. Levenston declined to give them any satisfaction on the subject, and they therefore refused to restore his name. He then applied to the Court of Queen's Bench for a *mandamus*, and the result was that his name had to be restored. The case of Mr. Murray was a similar one, and it was evident that the Committee had no right to inquire into the moral character of a practitioner who claimed to be restored under Clause 14. It was said that the Committee were much to blame because they did not communicate with the colleges in Ireland, and give them some intimation of Mr. Murray's conduct. It was, however, no part of their duty to do so. If anyone was to blame, it was Mr. Macnamara and his College. He was in possession of the Minutes of the Executive Committee, and he might have seen that the Committee had on several occasions refused to register Mr. Murray; that his case had been before them, and that at length his name was restored under a *mandamus* of the Queen's Bench.

The PRESIDENT said the Council was not then discussing

the cases of Mr. Levenston or Mr. Murray, but simply the proposition that the Executive Committee should adopt a certain course in all questionable cases.

Dr. AQUILLA SMITH said he had alluded to the cases to illustrate the position which he took.

The PRESIDENT said he desired to say a word on behalf of the Executive Committee, without, however, entering into the merits of the case. Mr. Macnamara had assured them that the resolution was not intended as a vote of censure, and he (the President) had not understood it in that sense. The matter in question was one of extreme difficulty to which the Committee paid the utmost attention. He entirely agreed with Mr. Macnamara's view that in cases where a question of that kind arose it was desirable that the Committee should have permission to communicate with the bodies concerned.

Mr. MACNAMARA said that was all he wanted.

The PRESIDENT said that perhaps the Committee would have been acting beyond its powers if it had communicated with the bodies concerned; but if the proposed resolution were passed they would be enabled to communicate with those bodies in any similar case. Whether the case was "questionable" or not would, of course, rest on the judgment of the Executive Committee. He hoped that without further discussion the motion might be carried.

Dr. ANDREW WOOD said it was no doubt right that the Executive Committee should communicate any circumstances that came to their knowledge in regard to cases of that kind; but it should be remembered that the Committee was bound at once to act upon Clause 14. No matter what circumstances might come to their knowledge, they were bound to put the name upon the Register, and then it was for the bodies and the Council to take action if they thought fit. He agreed with Mr. Macnamara that perhaps the Executive Committee might have been a little more expeditious in communicating the facts to the Irish bodies. If he would withdraw his motion or allow it to be negatived he would probably find in future that the Executive Committee would act in the spirit of it. Even if a man had committed murder the Committee had no alternative but to restore his name on proof of his identity, if the name had been taken off because his residence could not be ascertained.

Dr. ROLLESTON hoped that the resolution would not be withdrawn. If a man's address could not be ascertained, that was *prima facie* reason for regarding him as a vagabond. (No, no.)

Dr. HAUGHTON: It shows that he is wanted. (Laughter.)

Dr. ROLLESTON hoped that the resolution would be passed, so that individuals might not have the irksome responsibility of interfering to save the credit of corporations.

Dr. QUAIN said he thought the only blame that could be attached to the Executive Committee was that they were not quite as expeditious as they might have been in communicating with the colleges.

Dr. HUMPHRY hoped that the Council would not pass a resolution requiring an Executive Committee to do that which they were bound by law not to do. If the resolution were passed the Committee would have to disregard it, and obey the law of the land, which directed them to restore the name to the Register, but did not require them to ask the opinion of any other bodies. Whatever information the Committee might receive with regard to the conduct of an applicant, under Clause 14 they were bound to restore him on proof of his identity. If a person's name dropped out of the Register by inadvertence it was not legal to keep his name off simply on the ground that he was a "vagabond."

Dr. ROLLESTON said that all that the resolution required was that the Committee should give information to the bodies.

Dr. HUMPHRY said it required them to give information "before complying with the request."

Sir WILLIAM GULL said it was of great importance that there should be unity of action between the Council and the bodies. And certainly in all questionable cases where a person's name was removed it was desirable that the Executive Committee should place themselves in communication with the colleges concerned.

Sir DOMINIC CORRIGAN thought the resolution was a dangerous one, and entreated Mr. Macnamara to withdraw it. It began with absolute nonsense, referring as it did to "questionable" cases. Surely every case that was inquired into was a questionable case. (Laughter.) He maintained

that the Executive Committee had no power to do what was suggested, and he hoped that no attempt would be made to give them that power.

Mr. MACNAMARA said that with the permission of the Council he would slightly alter the reading of the resolution in order to meet the objection which had been raised, so that it would read as follows:—"That in all questionable cases, where persons whose names have been removed under Section 14 seek restoration, it is desirable that the Executive Committee should without delay put themselves in communication with the medical authorities whence the qualifications were originally derived."

The resolution thus altered was then put and adopted; eleven voting in its favour and four against.

Dr. AQUILLA SMITH moved the adoption of the report on the Council's Standing Orders by the Committee appointed for that purpose on July 17, 1879, as follows:—

The Committee beg to report that they have met and resolved that in their opinion it is necessary to completely revise and amend the present Standing Orders.

As this is a work which will necessarily occupy much time, the Committee propose to defer their full report until a further meeting of the Council.

The Committee feel that it would be a great advantage if the following suggestion be adopted as a Standing Order:—

That the Executive Committee continue in office for a period of one year from the date of its appointment, or, if the Council be not sitting at the time when the year expires, until the first day of the next meeting of Council.

AQUILLA SMITH, Chairman.

Mr. SIMON seconded the resolution, which was agreed to.

Dr. PITMAN said a statement having been made by Dr. Haughton that in some cases certificates of attendance on lectures had been granted when such attendance had not actually been given, some explanation should be given as to what school it was that was in fault. He should be very glad if Dr. Haughton would favour the Council with some kind of explanation. Even if it was only to the limited extent of saying that it was not an English school it would be some satisfaction.

Dr. HAUGHTON said that he alluded to a school in Dublin, respecting which he had personal knowledge that they had given certificates of attendance when such attendance did not take place. The information came from students of his University, who thought it their duty to come to him as Registrar and make a confession that they had obtained such certificates on payment of money. He had not received permission to name the school in question; in fact, he was under an obligation not to use the names of the persons who gave the information.

Sir WILLIAM GULL said the Council could not be regarded as having done its duty if they slurred over this matter. He would therefore move—"That the Branch Council for Ireland have its attention called to a statement made by a member of this Council to the effect that certificates of attendance have been given in a Dublin school to students who have not given such attendance; and that the Branch Council be requested to inquire into the matter and report thereon to this Council at its next meeting."

Mr. SIMON seconded the resolution, which was agreed to.

Mr. BRADFORD said he had noticed reports in the newspapers of the evidence given before the Select Committee now sitting on the Medical Bill, in which it was stated that Sir Dominic Corrigan gave evidence with respect to one of the English licensing bodies—the Apothecaries' Society—which statements he (Mr. Bradford) did not hesitate to say were totally without foundation. That Society could not remain under imputations which, if they were true, would prove that they were no longer fit to send representatives to the Council. He wished to ask Sir Dominic if the reports were correct.

Mr. HALDANE did not think the Council could possibly deal with evidence given before a Select Committee of the House of Commons. The best plan would be for Mr. Bradford to appear before the Committee and contradict the statements.

Mr. TURNER agreed that, so far as the Council was concerned, any statement made by Sir Dominic Corrigan even in the House of Commons was extra-parliamentary. They had no right to enter into an inquiry of what Sir Dominic Corrigan might have said either before a Select Committee of the House of Commons or any other committee except a Committee of the Medical Council.

The PRESIDENT ruled that the question could not be put.

Dr. PITMAN: Mr. Bradford can put his question to Sir Dominic after the meeting is over. (Laughter.)

Mr. SIMON drew attention to the present position of the Medical Bill, and thought they ought hardly to separate without adverting to some extent to the present position of a measure which was of great interest to the profession.

Mr. TURNER asked if it was competent for a member without notice to open up a question entirely foreign to anything which had come before it at its present sitting.

The PRESIDENT said Mr. Simon on the previous day handed a motion to him which he wished to move on this subject. There was no reason why it might not have been put on the programme if Mr. Simon had so wished. The observance of strict forms would no doubt very much expedite their business, but it had not been usual hitherto.

Dr. STORRAR thought the observance of forms was of very great importance if it could be maintained. It was, however, exceedingly difficult to do so in a body like the Medical Council. Some very important questions might arise between the drawing up of the programme and the meeting of the Council, and any strict rule might cramp their action on a future occasion. He did not raise the question whether the subject Mr. Simon proposed was expedient or not; he only wished to secure that their regulations should be sufficiently elastic.

Mr. SIMON said if it was not competent to discuss the matter on that occasion he would give notice of the following motion:—"That, whereas the Select Committee of the House of Commons, to which the Lord President's Bill (with others) has been referred, is occupied with two large disputed questions which attach to the different proposals for medical legislation, and is not likely soon to present its final report on those questions; and whereas, under these circumstances, the Lord President's Bill as a whole can hardly become law in the present session of Parliament; and whereas those parts of the Lord President's Bill on which there is general consent would even alone, in the opinion of the Council, be very desirable amendments of law: the Council hopes that her Majesty's Government, if unable to pass the Bill as a whole, may at least press the passing of those parts on which there is a nearly general consent of approval; and the Council is also of opinion that, in the present suspense of final legislation, a provisional enactment is desirable that in all future construction of Section 20 of the Medical Act 'the requisite knowledge and skill for the efficient practice of the profession' shall be taken to mean 'the requisite knowledge and skill for the efficient practice of medicine, surgery, and midwifery.'" If those gentlemen who were responsible for the conduct of business—the Business Committee—found that it would be inconsistent with the business of that session to call upon him to proceed with the notice of motion, he would of course defer to their judgment, and withdraw the notice.

Dr. ANDREW WOOD said that it would be very inconsistent with the business, and would probably prolong the session about ten days. He hoped Mr. Simon, after having had an opportunity of reading his motion, would withdraw it, as it would lead to endless discussion.

Mr. SIMON said he was bound by the judgment of the Business Committee, and would withdraw his motion. With reference to the reason given for withdrawal by the chairman of the Business Committee, that it might prolong their sittings, if they were to sit there for any useful purpose he thought they ought to entertain questions of that description. (Hear, hear.)

The next business was the following communication from the Royal College of Surgeons in Ireland (under date "April, 1879") in answer to a letter sent pursuant to the General Council's Resolution 21 of the meeting on March 26, 1879 (Minutes, vol. xvi., pp. 146, 147, Clauses 20, 21):—

With reference to the dental curriculum, this Council have agreed to accept the general regulations as laid down by the General Medical Council, but they cannot accept that portion of the regulations relating to the examination of candidates, *sine curriculo*, up to August, 1881, whereby the examination of candidates for their licence would be confined to residents in Ireland. This, in their opinion, could not be justified by what has hitherto been, and still is, the practice in regard to medical and surgical qualifications, or which obtained in England at the time the qualification in dental surgery was instituted by the Royal College of Surgeons of England.

Dr. ANDREW WOOD said they would find in the last column of the curriculum referred to the following provision:—"Candidates who are in practice in Scotland before August, 1878, and apprentices who commenced their education as dentists in Scotland before August, 1875, are admitted to examination on the production of certain certificates,"

and then "candidates are admitted to examination up to August, 1881, by the Royal College of Surgeons in Ireland on the production of certain certificates if they have been in practice in Ireland five years before the date of this application." What was objected to was the limitation of the power to grant licences to persons who had been in practice either in Scotland or Ireland. Such a limitation was not placed upon the English College when they were allowed to give licences. He therefore thought, seeing that this licensing of dentists was to meet an exceptional case, and would not continue long, the privilege enjoyed by England should be extended to Scotland and Ireland. He moved the omission of the words "in Scotland" in the first proviso, and "in Ireland" in the second; they would then read as follows:—"Candidates who are in practice before August, 1878, and apprentices who commenced their education as dentists before August, 1875, are admitted to examination on the production of certain certificates." "Candidates are admitted to examination up to August, 1881, by the Royal College of Surgeons in Ireland on the production of certain certificates if they have been in practice five years before the date of this application." That would be fair and proper. He might add that Sir James Paget, who suggested the introduction of the words "Scotland" and "Ireland," was satisfied that it was a mistake, and had no objection to the alteration.

Sir WILLIAM GULL asked if it was intended to give men in Scotland and Ireland better terms than they would get in England? Was it a sop to draw a number of very doubtful persons to a different division of the kingdom to get a certificate? If so, it would be a rather hazardous principle to introduce. He believed it was better that each man should, during the "period of grace," as it was called, have grace only for that division of the kingdom in which he lived. Facilities were given for the registration of a dentist in England; and that being so, why should he, if a suitable person for registration, go to Scotland or Ireland?

Dr. ANDREW WOOD said the reason was simply this, that men in practice, *sine curriculo*, could not now go to the College in England for an examination in order to be put on the Register. The College of Surgeons in England would not admit them.

Dr. STORRER: They can be put on the Register without examination.

Dr. ANDREW WOOD: You want surely to encourage them to go forward for examination?

Dr. STORRER: Not at all.

Sir WILLIAM GULL: I think an examination which is not a real test is no good.

Dr. ANDREW WOOD: But it is a real test; it is only that they have no curriculum. The College of Surgeons in England gave an examination *sine curriculo* for a certain term of years, and all that the Scotch and Irish colleges asked was that the same justice should be meted out to them. The English College might do it now if they liked; but they refused. The object of the resolution was to afford facilities to men who were anxious to become licentiates in dental surgery, but they would not be admitted without examination. They were to be submitted to a thorough examination; and this should be the most pleasing thing to Sir William Gull possible, because he had said, "Let men have their education where they like, and attend what they like; let them come to an examination to be tested, and I am satisfied. I do not care a fig for attendance on lectures or where they get their education."

Mr. SIMON said the College of Surgeons of England had for many years been giving its licence in dental surgery. It had made a certain education and curriculum necessary for getting that licence, and there had been no period for the last twenty years in which an English candidate might not go through that education, and come up to the College for its licence. Facility had been given to the Scotch and Irish colleges to do the same, and a common register having been established for the whole dental profession, it was very reasonable that a period of grace should be given to persons practising in those divisions of the kingdom. But why should these divisions give their grace to people who, having been in England all this time, if they were without the higher licence were without it by contempt of the existing regulations of the division in which they dwell? He submitted that the Council should regard with great jealousy the going out of one division of the United Kingdom into another in

order to procure a title of honour. Men were already entitled to be on the Register as having been in practice as dentists, and were they, desiring a higher title, to be allowed to go out of the division in which they lived, evading the regulations made by constituted authority therein, and to obtain their title on (educationally speaking) cheaper terms in another division of the kingdom. He hoped the Council would not approve any such principle.

Dr. HUMPHRY said it must be borne in mind that now for the first time there was a Register of Dentists, open to all persons practising dentistry at a given period, and therefore all were admitted on an equality upon that Register. Amongst those there were many who would like to show that they were not simply members of the ordinary mass, admitted in virtue of having been in practice, but that they really possessed the qualification attaching to a diploma. His own feeling was that the College of Surgeons in England was not quite wise in refusing that to practitioners in England, but the reason assigned was an intelligible one, namely, that it would not be quite fair to those already admitted on its register as licentiates, and who had passed through a curriculum of study. Still, he thought it would have been better to admit all who could pass the examination, whether they had gone through the curriculum or no. Ireland and Scotland had instituted a diploma for the first time, and, in accordance with the plan which England adopted, they desired to admit all members of the United Kingdom; for when the English diploma was first given it was given to all members of the United Kingdom who could pass the examination, whether they had gone through the curriculum or not. Scotland and Ireland now desired to do the same, and it was only fair to English practitioners that they should not be excluded from showing that they had knowledge sufficient to pass an examination and to obtain a diploma.

Mr. MACNAMARA seconded Dr. Wood's motion. He thought there was very good reason for the Council altering its recommendation, which had been carried in great haste on the last day of its meeting. It was a recommendation distinctly at variance with the Act of Parliament, and if ever there was a case in which the Irish College would be delighted to bring the Medical Council before the Privy Council this was the one. The Council were trying to deprive the College of a certain privilege, which they had no right to do. If the recommendation was insisted upon it would be his duty to give notice of motion that it be a recommendation of the Council that licences to practise surgery, midwifery, and medicine should only be conferred on candidates resident in that portion of the kingdom in which they were granted. He implored the Council not to retain recommendations on its list which it had not the power to enforce, and which, if they brought the recalcitrant body before the Privy Council, they would be told were completely beyond their power.

Dr. FERGUS supported the resolution previously arrived at by the Council. He said it did no one any harm to restrict honorary titles. No doubt they would find an immense number of people on the Dental Register whom they would rather not see there. The reasons given in support of the recommendation were very strong, and he hoped the Council would adhere to it.

Dr. Wood's motion was then put to the Council and carried by a majority of 9 to 7.

Sir WILLIAM GULL proposed the following motion:—"That the Council of the Royal College of Surgeons of England be requested to reconsider their determination as to the non-admission of candidates for the dental qualification *sine curriculo* up to August, 1881."

Dr. ROLLESTON seconded the motion.

Mr. TEALE thought the case in England differed from that which had been said about Scotland and Ireland. The dental diploma of the College of Surgeons of England had already an established rank, whereas in Scotland and Ireland, in the absence of anything of the kind, they had no diplomas of established value, and were therefore clearly entitled to a certain time of grace. To reduce the value of the English diploma by admitting a great number *sine curriculo* would be very unfair to those who for years had been going through an expensive and tedious process in order to obtain the degree.

Mr. TURNER pointed out that the candidates were not to be admitted without examination, but the examination would be carried out in the case of candidates *sine curriculo* in just the same manner as with those who had passed

through the curriculum, and of course their chances of passing were much less.

Dr. QUAIN said he should vote for the proposal. It would remove the excuse for going to another place. (Hear, hear.)

Dr. STORRAR also supported the motion. It might probably serve the purpose of some eminent men who were now practising dentistry in England without any diploma, and so prevent the necessity of their going away where they did not desire to go.

Mr. SIMON said the course taken by the Royal College of Surgeons was determined upon after due deliberation, and it was adopted in order to protect those dentists holding its licence. He was not authorised to speak on behalf of the College, but it was quite possible that they would say, although they greatly respected the Medical Council, they must adhere to their policy with respect to their titles. They were not prepared to abase their currency. If dentists of eminence practising in England would rather have the dental licence of the English College than that of the other divisions of the United Kingdom—which was very probable—it was no doubt because it had a certain educational value; and the College would, he suspected, prefer the alternative of losing the fees of those gentlemen, and letting them seek their honour in another division of the United Kingdom, on condition, of course, that the title of "Associate in Dental Surgery" should have after it the word "Scotland" or "Ireland."

Dr. ANDREW WOOD said he should agree with what Mr. Simon had said if it were not the fact that new circumstances had arisen. At that time there was no Dental Act, and no dental licence. He did not wish to draw men to Scotland and Ireland if they could get their licence in England, and it was only fair to men who were willing to submit to a full examination that they should obtain it in England. He hoped the College of Surgeons would consider the circumstances, which were new, and were not anticipated at the time they decided that a man should not be examined *sine curriculo*. They had already enjoyed their period of grace; they took 150 men *sine curriculo*, and if such men were anxious to submit themselves to a full examination it would be all the harder for them to pass.

Sir WILLIAM GULL said as the Council were called upon to make a Dental Register they ought to give the dental surgeons of England all the facilities in their power. The authorities of the College might wish to keep up the high value of their present title, but they must consider what was their duty to the public under the altered circumstances. He hoped the Council would express the opinion that it would be desirable that the College of Surgeons of England, taking into consideration the whole matter with respect to the Dental Register, should establish an examination for men who wished to be put on the Register after examination.

The resolution was agreed to.

Report by the Executive Committee on Foreign and Colonial Certificates in Dentistry.

Thirty-four applications have been received for the registration, under Section 10 of the Dentists Act (1878), of certificates in dentistry from the following institutions:—Harvard University, New York College of Dentistry, Baltimore Dental College, the American University of Philadelphia, Pennsylvania College of Dental Surgery, Philadelphia Dental College, Ohio College of Dental Surgery, the University of Naples, the University of Macerata, the University of Liège, the Royal College of Dental Surgery of Ontario, and the Dental Association of the Province of Quebec. Of these applicants all but four are already registered under Clause (C) of Section 6 of the Dentists Act (1878). The diplomas from Harvard University, two in number, have been registered in the Foreign Dentists' List, in accordance with the resolution of the Council (Minutes for March 26, 1879, vol. xvi., pp. 147, 150).

In the University of Naples there are no educational requirements; in the other institutions there is no preliminary examination in general education, two years only of professional study are required, and the examination in each is conducted solely by the teachers and officers of the institution. The Committee, therefore, having regard to the requirements of candidates for any of the diplomas in dental surgery in the United Kingdom—which comprise a preliminary examination and four years of professional study—cannot recommend to the Council that the certificates of these institutions should be entered in the Dentists' Register.

The report was adopted on the motion of Dr. HUMPHRY, seconded by Dr. STORRAR.

The customary votes of thanks were then agreed to, and the session was brought to a close.

PROF. BRÜCKE.—Hofrath Prof. Brücke has been chosen by all the votes, except of the four theologians, Rector Magnificus of the Vienna University for the year 1879-1880, being the first Protestant Rector from the foundation of the University. He has officiated as Professor of Physiology since 1849.

THE SELECT COMMITTEE ON THE MEDICAL ACT AMENDMENT BILL.

TUESDAY, JULY 22.

Mr. ERNEST HART was called after the examination of Dr. Haughton was concluded. Dr. Haughton's evidence was reported in our last week's issue.

Mr. ERNEST HART said, in answer to Mr. Forster, that for many years he was Ophthalmic Surgeon to St. Mary's Hospital, and was also a Member of the Royal College of Surgeons. He had for many years been engaged in medical journalism, and had been for thirteen years editor of the *British Medical Journal*. He was also chairman of the Parliamentary Bills Committee of the Medical Association. It was well known that the Act of 1858 was no protection to the public against the quacks and extortionate persons who were to be found in all the great cities of England, and who, in most instances, took the name of "Dr." without possessing any British registrable qualification. They preyed on the weakness and the follies of youth and of the weak-minded, and published pamphlets with the worst objects and had, in various instances, been the subject of successful police-prosecution, but those prosecutions had been incapable of suppressing the evils of which he spoke. He should propose to alter that Act by amending the penal clause in order to secure that no person should practise, in this country, under any title recognised as a medical title, who was not on the Register, and therefore amenable to the discipline of the General Medical Council. At present the offence was only that he should distinctly hold himself out to have any registrable qualification. If a person held himself out as a Doctor of New York, or sometimes they went to the extent of saying "Doctor non-registrable," still it imposed on the public, and all those cases were outside the Act. He thought that the disciplinary powers which the General Medical Council and the other corporate bodies possessed should be exercised as they had not hitherto been exercised. He did not propose to interfere with the right of men to consult quacks, but only to prevent quacks assuming qualifications they did not possess. He was very anxious that the Bill should make it incumbent on the Medical Council to appoint an officer whose duty it should be to prosecute under the Act, his argument being that the preamble declared that the distinction between qualified and unqualified persons was one of the main objects of the Act, and the protection of the public; that the Council were the persons who created the Register; and, as they received the penalties for infringing the Act, it was their function also to prosecute. The Association which he represented had been pressing on the Council for many years the necessity of obtaining a more stringent clause; for the few prosecutions that had been instituted showed how very inadequate the Act was to protect the public. The objection of the Council was that they had no funds to do it; but the penalty recoverable would more than cover any costs they would be put to. There would be no difficulty in obtaining the necessary information from the local practitioners. With reference to the constitution of the Council, he was of opinion that serious revision was required, and he wished specially to urge direct representation. At present only the licensers, and not the licensees, were represented upon it, and theoretically it was defective, because those who supplied the funds were the only persons unrepresented. Then the first practical reason for altering the constitution would be because the Council avowedly did not possess the confidence of the profession. One proof of that was, that at the close of the last session a resolution had been passed that the time had arrived to consider the revision of its constitution; also that in 1870 a memorial signed by 10,000 practitioners had been presented to the Council asking for a revision of the constitution, on the ground that it was inefficiently constituted to insure the confidence of the profession. The matter had been urged upon the Council by the medical Press, but not as a matter of initiative. Speaking as editor of the *British Medical Journal*, and, as having been in communication with 10,000 members of the profession, he might say that he had very much hung back from discussing the proceedings of the Council, because he always had the feeling that an executive body of that kind were best left to speak for themselves. No doubt the eminence and high character of the members of

the Council fitted them for a considerable number of questions that came before them, but so much depended on the mandate of the bodies they represented. He thought it extremely desirable that ophthalmic and obstetric surgery should be represented on the Council. Those subjects had been greatly neglected. The Council had always been too tender of the interests of the corporations. Thus, a resolution had been passed by the Council many years ago to the effect that the age of seventeen was too early for a student to begin the study of medicine; but the University of Edinburgh still receives students at that age. The King and Queen's College of Physicians in Ireland had also refused to comply with certain regulations of the Council, and yet the Council had taken no steps to enforce them. The Council of the College of Surgeons of England had refused to comply with the recommendation that professional education should last four years, and begin at a medical school. Other bodies had expressed their willingness to comply with the recommendation if it were generally enforced; but the Council had not enforced it. The Council had been defied by everybody in turn. All that the Council had done for the large amount of money it had received was to prepare a Register and a Pharmacopœia—which cost nothing, because they were presumably sold at a price to cover the outlay. He thought there would be no difficulty in finding eminent men in the profession to sit at the Council without payment. A small payment, however, might be made to the committees. There ought to be a committee to watch all Acts of Parliament affecting medical registration and education, a committee to prosecute offenders, and a disciplinary committee. Two or more inspectors should be appointed to inspect the examinations and report upon them every year. Mr. Simon had suggested that each division of the kingdom should elect its own branch Council; and that the branch Councils so elected should send their representatives to constitute, together with the Crown nominees, a compact General Council. A large number of practitioners in England had only one qualification. The examination in medicine now required for a diploma of the English College of Surgeons was by no means equivalent to a medical qualification; and the same might be said with reference to the surgical examination required by the College of Physicians. The witness then gave evidence as to the nature of the teaching on the Continent, and expressed an opinion that it was greatly superior to that of Great Britain with the exception of the University of Edinburgh.

The Committee adjourned till Friday.

The Select Committee appointed to inquire into the provisions of this Bill met again on Friday, July 25, the Right Hon. W. E. Forster in the chair.

Mr. ERNEST HART was called in and further examined. In answer to Mr. Arthur Mills, he said: The memorial presented by the British Medical Association in 1870 expressed the same want of confidence in the Medical Council, by reason of its constitution, as the memorials from bodies quite independent of the British Medical Association. In 1874, Dr. Paget, of Cambridge, when President of the Medical Council, said in his farewell address: "The statutable coercive powers of the Council are slender, but the chief power was gained when the Council determined that its debates should be published. The agency of the Press in giving publicity to our debates and proceedings has, I believe, doubled the power of the Council for anything right and reasonable, and more than doubled its influence with the licensing bodies on any questions in which this Council would be in the right and they in the wrong." Among the special anomalies which existed in the present representation of the corporations on the Medical Council were these: that the College of Surgeons of London, the greatest licensing body in the kingdom, and the Apothecaries' Company of London, which had almost ceased to be a licensing body, had each one representative; that the University of Cambridge had one representative, while the University of Edinburgh, the most important school in the kingdom, had only half a representative, although an unimportant school like Durham had a whole representative; and that, whereas to some extent some of the medical schools were represented, such schools as St. Bartholomew's and Guy's were unrepresented. As to the representation of the corporations themselves by the members they sent to the Council, the electing bodies were so extraordinarily diverse that the representatives had no common basis of representation: *e.g.*, the re-

presentative of the University of Oxford represented the whole body of the University; the representative of the College of Surgeons of England represented the Fellows, a body which might be recruited by examination; while the representative of the College of Physicians of London represented only the Council, a body arbitrarily elected, and into which no person could find his way unless he were engaged in hospital and consulting practice, and not in general practice. Theoretically any person might become a Fellow of the College of Surgeons by passing an examination, but it was also necessary that after he had obtained his licence to practise he should attend two years at some hospital, which meant an expenditure of £200 in money as well as two years of time. No person could become a member of the Council of the College of Physicians of London unless elected into the Council by the Council itself, and it was, in fact, in a social sense, penal to canvass or ask for election. As to the extension of the franchise within the corporations, which had been suggested, it would be absolutely impracticable; new charters would have to be granted to nearly all the bodies, or else the old ones would have to be completely revised. As to the statement made that the excitement likely to attend direct election would be injurious, he (Mr. Hart) thought the profession was the best judge of its own susceptibilities on that matter, and since it was asked for by the profession as preferable to the present mode of representation, it was not necessary to take a different view of their susceptibilities. He had seen the statement made that men returned by direct representation would be less fitted to sit on the Council than the present members, but it was a mere opinion, and had never been supported by any facts. The persons elected by popular election into the Committee of the Council of the British Medical Association were persons of precisely the same class as those who sat on the Medical Council; for instance, Dr. Stokes, Sir Robert Christison, Sir James Paget, and Dr. Acland were among the past presidents of that Association, which was very jealous of the qualifications of those whom it elected. It was a mistake to suppose that unknown persons or mere agitators could, by canvassing, get themselves elected to represent the profession at large. The members of the Medical Reform Committee of the Association are persons of the very highest standing in the profession—senior physicians of great hospitals, and senior lecturers of great schools.

Do you think that an infusion of highly educated general practitioners would increase the efficiency of the Council?—I think that since the great mass of the profession are engaged in general practice, their education and the conditions under which they are to practise are the special business of the Council; and since they are the persons especially acquainted with the injuries which the public suffer from the ignorance and imposture of persons illegally practising, it seems evident that any system which does not provide for the presence of general practitioners on the Council is a defective system. The great complaint against the Council is that it has not exercised judicial functions, but confined itself to striking off from the Register the names of persons against whom there have been convictions for penal offences. Its past history shows that the Council has failed or declined to exercise its judicial functions from want of sympathy with the public, on whose behalf those functions ought to be exercised, and from want of knowledge of the great importance of exercising those functions.

In answer to Sir James Paget's statement that the English College of Surgeons had acted upon the recommendations of the Council, Mr. Hart stated that there were instances in which the College had been continuously recalcitrant to the recommendations of the Council—for instance, with regard to clinical examination; the mode adopted by the Council for the examination for the membership was to bring the patients to the College, and for the examination for the fellowship to take the candidates to the hospital. The Medical Council thought this unsatisfactory, and recommended the College to assimilate the method of examination for the membership to that pursued for the fellowship; but to this the College of Surgeons objected. Great carelessness as to expenditure had been shown by the Council—for instance, they printed the Register for some time at considerable expense; and they were afterwards informed by the head of the stationery department that it could be done for half the price. In being put on the Register the practitioner does not get a *quid pro quo* for the payment of his fees.

By Dr. LUSH: The University of Oxford possessed very large medical funds and endowments, and assumed to be one of the examining and graduating bodies, although it was absolutely passive with regard to medical education; and the fact that it was represented on the Medical Council pointed very strongly to the defective constitution of the Council. With regard to the Army Medical Service, a Royal Warrant was under consideration at the present time, which proposed to abolish the entrance examinations, which were of the greatest importance. So long as Dr. Parkes sat on the Council, educational questions connected with the Army Medical Service received great attention; but since his death they had been much neglected. It was also important, in the interests of the public, that the sanitary authorities should have legal means of ascertaining the qualifications of candidates for the Poor-law and Public Health Medical Services; but the Medical Council had failed to supply any standard by which those bodies were enabled to recognise competent men. The University of Dublin and several other bodies were in the habit of granting a special degree for sanitary science, but still it was a moral duty on the part of the Council to see that the education of the profession met the requirements of the public, and if general practitioners were represented on the Council that omission would no doubt have been long since supplied.

Is there frequent migration of weak candidates from one examining body to another?—On that subject there is a piece of information on the Minutes of the Council (vol. xii., page 104), which is most instructive—viz., the report of the visitors of the first conjoint examination in 1873 of the Royal College of Surgeons, Edinburgh, which says—"The visitors were unfortunate enough to meet only very inferior candidates, who were all rejected. They were given the answers, and they stated their sense of the great deficiencies of those candidates, both in general and professional knowledge. This is not intended as a reflection on the Colleges, and is not so taken by them, but the College of Surgeons remarks on this point that a large number of candidates who come to be examined in Edinburgh have received their education in other parts of the kingdom, and that it would be very unjust, from the results observed by the visitors, to infer any inferiority in the Edinburgh School of Medicine. No imputation can on these grounds lie on the Edinburgh School of Medicine, but the fact remains that five gentlemen were so deficient in preliminary education as not to be able to spell or express themselves correctly. The committee think that when candidates show ignorance on general as well as professional education it would be desirable for the licensing body to report the facts to the Medical Council in order that the nature of the preliminary examination should be inquired into." I should say that, to whatever extent this migration goes on, it is probably diminishing very much.

There is nothing like a circular sent from one examining body to another, to say that any person has been rejected?—There, again, the Minutes of the Council are instructive. In the report of the Sub-committee on the Visitation of Examinations, June 21, 1860, it is recommended that in the event of a candidate for any examination being rejected his name should be communicated confidentially to the Registrar of every other examining body without delay; and again, on July 1, 1861, it was recommended that a candidate should be required to state whether he had been rejected within three months by any examining bodies; but those recommendations have not been acted upon. If the Council sends out these recommendations it is part of their duty, in order to prevent inferior persons getting into the profession, to represent those bodies to the Privy Council. As a rule the work of the Council is done by paid committees, who are paid for the time they sit at the same rate as when sitting on the Council; but the most valuable work of the Council is done by the special committee who report on the visitation of examinations, and that committee is not paid. With regard to legal advice, the Council rely on the advice of their solicitor, Mr. Ouvry. They have threatened to represent several bodies to the Privy Council, but have never done so, although the moral influence of the Council has been undoubtedly great.

By Mr. WHEELHOUSE: Is the action of the Council, according to your view of what its duties are, sufficiently quick?—It is extremely cumbrous and extremely slow. It sits only for a few days every year. Practically they do very little work, and then adjourn. With regard to the reconsti-

tution of the Council, Mr. Mills' scheme is well calculated to diminish the relative strength of the corporations. It would be a source of great strength to the Council if the medical schools were represented on the Council. I would not lessen the power of the corporations in the Council so much as counterbalance it by direct representation, and also by modifying the character of the Crown nominees, by providing that they shall not be in the future, to the same extent as in the past, drawn from the consulting branch of the profession, but that one-half shall be general practitioners. I think the Army ought to be represented on the Council, and also the Poor-law Medical Service. It would be easy to point to examples of gentlemen on the Council who hardly ever rise in the course of years except to say something in defence of their own corporations.

By Mr. MITCHELL HENRY: It is difficult to say which is the most important question of medical reform at the present time—examination, direct representation, or the amendment of the clause relating to quacks. It would be an advantage, no doubt, if the conjoint scheme were constituted, but it would be utterly hopeless to attempt to pass a Bill enacting that after the question had been discussed as it had been, and it would be a pity to deal with the question piecemeal. As to the statement that the Council sat until they talked the whole of the money out of the bank into their pockets, and then dispersed, I should say I intended to make no charge against the Council of corruption or unfaithfulness, but I meant that being a body which is authorised by Parliament to pay to its members £5 5s. a day for each sitting, they practically sat until the whole of the funds were exhausted. The fact that they are paid so much a day besides hotel expenses, results in a grievous loss to their efficiency. The Council, whether reformed or unreformed, should not be paid.

If a representative of the Poor-law Medical Service were sent to the Council would he be able to attend in London without remuneration?—I can quote a great number of instances in which persons occupying positions in the Poor-law Service have given up more time than they would require for the Medical Council in the performance of like duties. They would be happy and proud to do it. In the College of Physicians of Edinburgh the qualification of licentiate is obtained upon a separate examination or a conjoint examination. A member of the Apothecaries' Society in London can, upon application to the College of Physicians in Edinburgh, have a special examination, which is called the modified examination, and for which he pays an extra fee of £5, and if he passes that examination he becomes a licentiate of the College of Physicians.

The Committee having deliberated a short time,

Dr. ANDREW WOOD was called in and examined. In answer to the Chairman, he said: I am and have been a member of the Medical Council since its institution, representing the Royal College of Surgeons, Edinburgh. I have been a general practitioner at Edinburgh for forty-five years, and still practise as such. The condition of the profession before the Medical Act was not satisfactory at all. In the first place, there were nineteen licensing bodies, each of them regulating its own curriculum of study and examination; secondly, there was no authorised minimum standard of qualification to practise; thirdly, there was no central guiding, controlling, and supervising power; and, fourthly, there was only very partial preliminary examination in general education, and that only by some of the bodies. At the time I was examined the preliminary examination was undergone at the time the licence was granted. I moved at the College that the preliminary examination should be preliminary, and that we should have no examination in general education except before the commencement of professional study. They were aghast at such a revolutionary proposal, and I said, "Well, make it optional"; and that was agreed to, with the result of 130 students coming forward voluntarily to offer themselves for the preliminary examination. We made it compulsory immediately the Medical Council issued their recommendation. Then (before the Medical Act) there was no published Register to enable the public to distinguish qualified from unqualified practitioners, and there were also certain monopolies. Incompetent persons were often licensed to practise. The Medical Act, on the whole, has proved a very beneficial Act, and would have been more so but for an unfortunate blunder. The Bill should have provided that no one should be registered who had not a complete qualification

not only in medicine and surgery, but also in midwifery. Most undoubtedly every practitioner in the medical profession ought to be qualified in midwifery as well as in medicine and surgery. The Royal College of Surgeons, Edinburgh, have never issued a diploma except after examination in every branch of the profession. Scotch combined boards have been in existence for the last twenty years. The Royal College of Physicians, Edinburgh, and the Royal College of Surgeons, Edinburgh, agreed then, while still continuing to issue diplomas separately, that a double qualification in medicine and surgery should be given to students who passed a joint examination conducted by a board on which each college was represented; the object being to give students opportunities of obtaining from two separate bodies medical and surgical qualifications at less expense than if obtained separately. The College of Physicians also made a similar combination with the Faculty of Physicians and Surgeons of Glasgow, which is merely a faculty entitled to give diplomas in surgery. When the Medical Council first met, it was a very curious concatenation: we had all been at loggerheads, fighting against one another; we were embarrassed a good deal by the number of different duties which devolved upon us; but at our very first meeting we began to consider medical education, and proceeded to frame resolutions. The result of our labours in the improvement of the examinations was not speedy, but there is a great improvement now. We have powers to enforce the recommendations of the Council in anything that is material by reporting disobedience to the Privy Council. If any of the bodies had refused to adopt a recommendation of the Council—such, for instance, as the recommendation as to clinical examination—I have no hesitation in saying that the Council would have represented that to the Privy Council. Of course the Privy Council would have to hear the defence of such a body, and we might be beaten. I think that the cause of reform has not lost by our not enforcing recommendations; the Council did well to use moral suasion. If the Medical Council possessed larger powers it might have done a great deal of mischief. Progress should be gradual, and you should not bring in fundamental changes without giving the bodies who are to accept them time for consideration, and an opportunity of stating their reasons against proposed reforms. The visitations of examinations have had a most excellent effect, but in consequence of the continued agitation for medical reform, which has been going on the last three or four years, those visitations have been discontinued. The College of Surgeons of Edinburgh has been visited three times. Visitations should certainly be renewed, and systematically carried on. The fees of the Council, which are at present five guineas for each member per day, should certainly be reduced to three guineas. If this were done ample means would be provided for the addition of six members to the Council, and for continuous visitation of the different bodies. The Medical Act and the Medical Council have been so successful as not to require such a revolutionary measure as that proposed by the Government. The position of the profession as it is now, and as it was thirty years ago, is as different as night from day. For one ignorant person you meet now you meet twenty men well informed; that is the fact even in the outlying districts of Scotland. One of the most important things we have done has been to establish a register of medical students. Every student, before commencing his professional studies, has to produce a certificate that he has passed a preliminary examination in conformity with the recommendation of the Medical Council. The curriculum of study has been improved, and extended to four years. It is impossible for a man to become a licensed practitioner by being a fellow of our College without having passed one of the examinations provided by the Medical Act. Clinical examinations are universal now. I think the country is pretty well supplied with qualified practitioners. The standard is as high as that of any country in the world. If it is stated that, in order to attract candidates for the purpose of making money, the Scotch bodies grant licences on easier terms than other bodies, it is a base insinuation. One of the visitors of the Medical Council who was visiting the examinations in Ireland thought proper to introduce into his report the statement that he had ascertained that candidates rejected by the Irish bodies were in the habit of going over to Scotland and getting licences. When he made that statement I need scarcely say our Scottish blood was up, and we challenged him to prove the statement, but

he refused to give us any names or particulars. The medical education to be obtained in Scotland will compare favourably with that to be obtained in any other country. One of the chief reasons why so many English and Irish students go to Scotland for licences is because they can get the double qualification by one examination. We can examine them for our single diploma for fifteen guineas, and for the double diploma for twenty guineas by reason of our combination. I do not go the length of saying that there should be no single qualification, but the Legislature should encourage a double qualification. I would not allow any single qualification to be put on the Register. If it is resolved to have an organic change, and to have something of a conjoint board system, then a very good object would be gained by leaving the universities and the corporations to examine in all the subjects which they at present do up to a certain point, so that a man should have his double qualification from the College of Physicians and the College of Surgeons or from the University, and then, after having got a certificate of having passed those examinations, he should be examined by a conjoint board clinically. I would reserve the clinical examination exclusively for the conjoint board, which could be conducted at an expense of about five guineas to the student. I did vote for the resolution in favour of the conjoint board in February, 1870, but I have changed my mind since, and deny that there is a *prima facie* argument in favour of the three portals instead of nineteen. I do not say the feeling in Scotland is unanimous against the conjoint board system, but every one of the corporate bodies and every one of the universities would be against it. The Branch Council for Scotland in 1872 passed a resolution "That, although its members were never thoroughly satisfied with the scheme suggested for conjoint examining bodies, they nevertheless loyally attempted to carry out in Scotland the wishes of the majority of the Council; but the results of the efforts which have in Scotland and elsewhere been made for the promotion of such a scheme have convinced this branch Council that it is expedient for the present to resist any attempt to form such a board in Scotland, rather than to improve the existing system." If the Bill of the Duke of Richmond or Lord Ripon had been carried, and we had been called upon in Scotland to form a scheme on the lines of the English scheme, we could not have done it. Then the Bill would have said the Medical Council must do it; but how they were to do it after we failed I can scarcely see. The opposition to it now in Scotland is universal. At the meeting of the Medical Council the year before last, all the Scotch members voted against it. I think the proposition to have a uniportal examination would be quite impracticable. You would have to examine 1300 or 1400 students a year in the three kingdoms; to do that there would have to be a great number of examiners, who would have to be divided into a number of committees, and then what becomes of your one portal? The Medical Council does its duty in a much more capable way than some of the witnesses have stated. I consider myself an independent member of the Council, and have never been told by my College what I am to do. I have felt from the beginning of the Council that one fault was that general practitioners were not sufficiently represented on the Council. I think the addition of four or six members to the Council would be an advantage, especially if they were general practitioners, because if we had twenty-eight or thirty members we might to a larger extent adopt a plan which we have adopted, and dividing the Council into committees, and giving to each committee a separate subject. Those committees would prepare definite reports, and I believe, on the whole, instead of increasing the time occupied, it would very probably diminish it.

Mr. MITCHELL HENRY: Do you think there would be an advantage in consolidating in Scotland the examinations of the medical corporations?—I think so. We are consolidating to a great extent now; but it is very difficult to diminish the avenues to qualifications.

It seems probable that in England a uniform system of examination will be adopted?—They have drawn up a scheme, but it has not been carried out. They have not much confidence in their own scheme, because they say at the end of five years any of the bodies may withdraw if they please. I should be very sorry to hand over the whole of the licensing bodies of the kingdom to the Medical Council.

By Mr. ERRINGTON: When we went into the details of the conjoint scheme we found there were difficulties. Sir R.

Christison was in favour of it at first, but he subsequently changed his view, and is more opposed to it now than I am.

Mr. ARTHUR MILLS: You do not ascribe all the advance in medical knowledge which has taken place in the last twenty years to the Medical Act of 1858?—No; but I think the Council should get some little credit in the matter. We have been constantly and unjustly criticised by the medical journals. I cannot agree to the statement that the progress of medical education has not kept pace with the progress of general education in the country. As to the statement that the Chairman of the Business Committee makes a calculation of how long the money at the disposal of the Council would last, and regulated the length of the session accordingly, I deny it entirely; but I cannot but think that some mistake has been made. Such a statement makes my blood boil. As regards the additional members of the Council, it does not matter whether they are half-a-dozen more or less. I infer that more confidence would be felt in the Council if there were an infusion of a larger number of general practitioners, from the various memorials and complaints that have been made. It is obviously a sore point with many of the medical profession, and some regard should be paid to the feelings which are expressed.

After a few questions from Mr. Heygate and Dr. Lyon Playfair, the Committee adjourned till Tuesday next; and on that day the Committee met, but did not call any witnesses. They resolved to report to the House their inability to collect all the necessary evidence during the present session.

GENERAL CORRESPONDENCE.

OWENS COLLEGE MEDICAL SCHOOL.

LETTER FROM DR. ARTHUR GAMGEE.

[To the Editor of the Medical Times and Gazette.]

SIR,—The publication of the annual returns of the Royal College of Surgeons, showing the results of the examinations held during the last year, having attracted great attention, and having been quoted with the object of proving that the medical department of Owens College is inefficient as contrasted with other medical schools, I venture to address you the following remarks, which will, I trust, fully clear the institution with which I am connected from the injurious imputation, and call attention to a system which I believe to be as undignified as it is unjust.

I think it might have been foreseen that the system, inaugurated many years ago by the Royal College of Surgeons, of publishing annually the total number of students sent up by each school, with the number of candidates rejected and passed, would be open to serious objections, and would utterly fail as a test of the comparative teaching efficiency of the medical schools.

The pressure of competition amongst the numerous medical schools of England led to the establishment of so-called test examinations, to which all students are subjected, and at which they are expected to acquit themselves satisfactorily before having the schedules signed which are a necessary condition to admission to the examinations of the College. Theoretically these examinations may perhaps be defensible, as enabling the medical schools to advise students with precision as to the expediency of going up for an examination, or the reverse. In practice, however, they usually lead to those who fail being more or less peremptorily refused certificates to which they have acquired a legal title. With the growing stringency and efficiency of the examinations of the Royal College of Surgeons, the test examinations have grown in stringency also. The returns of the Royal College of Surgeons afford, indeed, a means of judging of the comparative efficiency of these test examinations but little more.

After mature consideration the authorities of Owens College arrived at the conclusion that this system—which, it is to be noted, is only adopted in the case of candidates for the examinations of the Royal College of Surgeons—is utterly indefensible. If a student has attended the requisite courses of instruction with diligence and regularity, and has thereby acquired a legal right to a certificate, it appears in the highest degree harsh, indeed unjust, to refuse him permission to present himself for examination, on the ground that by his failure he may injuriously affect the returns relating to his

school. Holding this opinion, Owens College has abandoned test examinations. We profess to teach our students to the best of our ability. We require that they shall attend our courses of instruction with regularity, and if they will ask us our advice we willingly advise them (and, I believe, as a rule, with accuracy) as to the expediency of presenting themselves or not for any particular examination; but we do not condescend to a system which is unjust to the student and distasteful to the teacher, who takes upon himself the invidious task of deciding an issue which ought to be left to the decision of the public examining boards.

That my statement is correct as to the returns of the Royal College of Surgeons being returns which exhibit the comparative efficiency of the test examinations conducted at the different medical schools, rather than the comparative efficiency of medical schools, may be proved by citing our own case. In the years during which my colleague Dr. Watson and I conducted test examinations, which were imposed upon all candidates for the primary examination of the College, our School stood among the highest in the returns of the Royal College of Surgeons. Now that the test examinations have been abandoned by us, we share with University College the lowest position in the same returns. In the list just published the percentage of rejections in the case of the Birmingham School amounts to 15.7 per cent., in that of Bartholomew's to 30.3 per cent., in that of University College to 48.5 per cent. Are we to conclude, however, from these numbers that of all the schools in the country that of Birmingham, with its low percentage of failures, is the most efficient; that St. Bartholomew's, with a proportion of failures nearly double that of Birmingham, possesses only half the efficiency; and that University College and Owens College stand lowest on the list? The statistics of the College of Surgeons have been used as arguments to show the inexpediency or injustice of granting to the proposed "Victoria University" the privilege of conferring medical degrees; and the question has been asked more or less directly, "Upon what grounds does Owens College seek a privilege which is not generally possessed by the medical schools of England?"

The answer which is to be given is the following: The medical department of Owens College forms part of a great institution, which has for many years past discharged the most important functions of a university for the district of England in which it is situated—of an institution which has numbered, and numbers, amongst its professors men who have contributed very largely to the advancement of science and letters; an institution in which there actually exist the means of pursuing a complete education in arts and sciences, as well as in medicine, and in which a legal department of considerable efficiency also exists. The position of Owens College as a teaching institution is, indeed, exactly comparable to that of one of the Scottish universities, or to that of University College and King's College, London. Had it not been proposed to confer a charter upon a new university, which is to include Owens College and any other colleges which come up to a certain standard of teaching efficiency and completeness, there would never have been a desire to acquire powers which would give to the medical department of Owens College the advantage which appears to have caused so much apprehension on the part of our colleagues in the Liverpool School—to whom the whole present agitation against us is to be referred. As, however, the medical element constitutes an important place in the one College which has given a *raison d'être* for a new university, we may be pardoned if we object to a charter which would constitute us a university without a faculty of medicine.

No one is more aware than I am of the bad influence which has been exerted upon medical education by the competition which has existed amongst certain of the medical licensing boards of the country, and no one wishes more ardently than I do for a legislative measure which shall place some control upon certain of these bodies. At the same time I am strongly of opinion that the universities of Scotland—though certain of them may have been in the past, or may actually be at the present, too lax in the granting of their degrees—have been amongst the most efficient of the medical schools of the country, and have conferred signal benefits upon the medical profession and the country at large. Had it not been for their appreciation of the intimate relations of the sciences to medicine, can we doubt that the

position of medicine in this country would have been altogether different from that which it occupies to-day? The promoters of the "Victoria University" seek to confer not only upon Owens College, but upon any other similarly constituted institution, the means of developing a system of education which shall not be less efficient or less complete than that of the highest of the Scotch universities.

I am, &c.,

ARTHUR GAMGEE, M.D., F.R.S.,
Dean of the Medical School of Owens College,
Manchester.

July 28.

DIARRHŒA AND DYSENTERY IN SOUTH AFRICA.

LETTER FROM SURGEON-MAJOR W. T. BLACK.

[To the Editor of the Medical Times and Gazette.]

SIR,—With reference to Dr. B. Nicholson's interesting communication to the *Medical Times and Gazette* of July 5 last, I may state that I contributed a short article on the same subject some years since to the *Provincial Medical Journal*.

The comparative freedom from active inflammation or violent spasmodic symptoms in some cases of the dysenteries, I was induced to believe, arose from the scorbutic nature of the constitutions implicated, especially when attended with hæmorrhagic flux to any unusual degree. They used to prevail among the troops engaged in the Kaffir wars, both in camp and in stationary posts, especially during the autumn and during seasons of drought and scarcity, when animal food is mainly had recourse to for diet, unsupplemented by the proper proportion of fresh vegetables of any sort or kind.

The use of impure water for drinking and cooking, derived from streams and brooks that drained polluted watersheds, was probably the chief cause of the diarrhœas, conjoined as they would be with the typhoid fevers more or less prevailing.

The bad sanitary state of camps during war-time was caused by the exposure of animal exuvie and excreta of cattle, horses, and men, all round their precincts; to the decomposing influences of a hot sun and rain. The local atmospheres soon become vitiated, the poisonous effluvia were inhaled, and pythogenic fevers are the natural consequences.

All these injurious effects are likely to take place much more speedily in Natal and Zululua than in the drier and more bracing air of the Cape Colony and British Kaffraria, owing to their moister and softer climates.

The greater amount of aqueous vapour in their atmospheres will dissolve the effluvial emanations, and hold in suspension the floating germs of infectious diseases, which will thus gain admission into the system by the way of the lungs with great facility. Regarding the treatment of the dysenteries, I have some recollection of mercurial preparations being useful, and particularly that the calomel and opium pill should be given in a double dose at the onset, and afterwards gradually diminished in strength. Sulphuric acid mixtures were also found useful in the diarrhœas and hæmorrhagic fluxes, which were very prevalent amongst the coloured auxiliary troops. The Hottentots, Kaffirs, and Boers had in use several native medicaments derived from the roots, leaves, or barks of bush plants, and some of these were of undoubted merit, and were made up and employed by the Europeans as good in household remedies in the country districts.

I am, &c.,

W. T. BLACK,

Hanover-square Club, London.

Surgeon-Major.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following is a list of candidates who passed the Matriculation Examination of this University in June, 1879:—

HONOURS DIVISION.

Thomas Stephenson Simpson (Exhibition of thirty pounds per annum for two years), Arthur Berry (Exhibition of twenty pounds per annum for two years), Elizabeth Henrietta Sturge (disqualified by age for third Exhibition), Harold Seward (Exhibition of fifteen pounds per annum for two years), Thomas Little Heath (Prize of ten pounds), William Jocelyn Bradford (Prize of five pounds), Edgar Herbert Thane (Prize of five pounds); [Herbert Longman Leonard, Mary Ellen Rickett, Edith Aitken, John Edward Power Wallis, George Eumorfopoulo, Thomas Ingram, Herbert Hall Turner, Marian Balfour, William Stroud, Hermann Julius Goldschmidt, James Joseph Henry, Manuel Maria Polit; Henrietta Elizabeth Clay and John Howard Hudson, equal; Walter Alexander Raleigh, Roger Neville Goodman, John Edward Lloyd, Maria Mabel Anelay, William Lace Clague; Upendra Krishna Dutt and Percy Robinson, equal;

Samuel Biddle, William Bright, Edward Gick Richardson, Francis John Curtis; Harry Cecil Chapman and Mary Collin, equal; Ralph Henry Piggot, Francis Russell Harnett; Clara Brown and Margaret Theodora Meyer, equal; Francis Vincent Keating, Michael Thomas Quinn, and Alfred William Shakespeare, equal; John Joseph Blackoe and Henry Maurice Platnauer, equal; John Lloyd Roberts, William Charles Braithwaite, Herbert William Brown, Henry Celestine Robert John; Arthur Thomas Bown and Edith Rosa Williams, equal; Reginald Macdonald, Anna Maud Buchanan, Henry Philip Calderon, Walter Hallworth] (a); Thomas Elders North, Albert Tarn; William Tusting Cocking, Ernest George Harmer, and Annie Townsend, equal; Pensa Rosa Hodge and Mary Hodgkinson, equal; Richard Tattersall Hargreaves, Catharine Emma Berridge, Thomas Edward Dyson, James Martin Haarblicher, John Marriot, John Sidney Smith, Arthur Rowntree; Herbert Child, John Henry Crofts, John Greenfield, and Jane Jaffé, equal; Edith Adeney Jackson and Charles Onions Tunstall, equal; Percy Clarke; Ellen Anderson, Walter Lane, and Marmaduke Ernest Ruston, equal; Catherine Eyre Anelay and Malachi Donnellan, equal; Felix Brannigan O'Flaherty, Thomas Durley Landels, William George Normandale, Henry Richard Williams; Emily Constance Dicker and Joseph Gerald Pease, equal; Joseph Paul Snow, Charles Barclay Innes, William Bramwell Ransom, William Lower Carter; Arnold Eiloart, Charles Alder Stubbs, and John Hewitt Watterson, equal; Sarah Louisa Gray, Percy Flemming, George William Pye, William Westrope Harrison, Jessie Mein; Selina Dorman Bostock, Richard Pender Butler, and John Wynne Porter, equal; Alfred Chamberlain, Thomas Russell Maltby, Patrick Watson Williams, John Montgomery, James Wheatley, George O'Brien, Amy Rayson; Frederick William Bogle and Frederick James Butt, equal; Frederick Walsley Warrick, Theodore Guerdain Turner, Charles Alfred Barber, Sophie Elise Marshall, James Mansell; Nicholas Holman Boyns and Thomas Briggs Brindle, equal; Fernelley Cozens-Hardy, Mary Isabella Webb; Joseph Rosamond Adie and Samuel Mumford Taylor, equal; Herbert Ernest Knight; Charles Andrews and Robert Mullineux Walsley, equal; Edward Collingwood Andrews; William Henry Bowes and Philip Henry Cooke, equal; Richard Haworth Hart, Arthur Ford Smith, Arthur Makinson Fox, William Thistlethwaite, Ernest Driver, George William Saul Howson, Charles Minshall Jessop, Thomas Henry Love, Mary Janet Matheson; Parker Anscombe and Albert Park Nesbitt, equal; Charles Henry Brewitt Taylor; Alfred George Francis and James Walford Hart, equal; Alfred Brook Tucker, Alexander Ellis; William Ryland Dent Adkins, Louisa Jane Benham, Ada Dunnell, and Harold Temple Wills, equal; Robert Black and William Bland Botham, equal; Arthur John Waghorn, George Dennis Day, Henry John Staples; James Edward Crawshaw and Benjamin Pratt, equal; Charles Reuben Prideaux and David Christopher Rowlands, Williams, equal.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having undergone the necessary examination for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 24th ult., viz.:—

Crew, W. T., Macclesfield, student of Guy's Hospital.
Davies, R. T. E., Aberavon, Glamorgan, of University College Hospital.
Deane, A. D., Henley-on-Thames, of Guy's Hospital.
Dickinson, T. V., Sloane-street, of St. George's Hospital.
Falla, Walter, Jersey, of University College Hospital.
Hassan, Syed, L.R.C.P. Lond., Bedford-place, of the Bengal School.
Hine, J. E., Draycott, of University College Hospital.
Ingledew, George, Girdler's-road, W., of University College Hospital.
Kirsopp, Thos., L.S.A., Hexham, Northumberland, of St. Bartholomew's Hospital.
McDonnell, Denis, Pentonville-road, of King's College Hospital.
Shaw, John, L.S.A., York-road, S.E., of St. Thomas's Hospital.
Shears, C. H. B., Norwood, of St. Bartholomew's Hospital.
Sheild, A. M., Gilfach, Wales, of St. George's Hospital.
Skinner, B. M., Gloucester-crescent, W., of St. George's Hospital.
Steele, W. C., Dorchester, of St. Bartholomew's Hospital.
Webb, J. G., St. George's-road, S.W., of St. George's Hospital.

Seven candidates were rejected. The following gentlemen were admitted Members on the 25th ult., viz.:—

Barling, H. G., Newnham, Gloucestershire, student of St. Bartholomew's Hospital.
Clowes, H. A., Sydney, of Guy's Hospital.
Cottell, A. B., Great Cheyne-road, of St. George's Hospital.
Cowan, G. H., M.B. Toronto, Napanee, Canada, of St. Thomas's Hospital.
Davies, J. D., Merthyr Tydfil, of St. George's Hospital.
Emerson, P. H., Teignmouth, of King's College Hospital.
Harrison, E. M., L.S.A., Brackley, Northamptonshire, of the Charing-cross Hospital.
Hoskyn, D. T., Kilburn, of University College Hospital.
Lewis, Christopher, Birmingham, of the Birmingham School.
Neale, W. H., Boundary-road, N.W., of University College Hospital.
Patterson, G. H., L.S.A., Brighton, of St. Bartholomew's Hospital.
Porritt, Norman, Huddersfield, of the Leeds School.
Schlesinger, R. E., Melbourne, of King's College Hospital.
Shapley, Frank, L.S.A., Torquay, of the London Hospital.
Shaw, W. W., Kirkham, Lancashire, of St. Bartholomew's Hospital.
Sherrard, C. D., L.K. & Q.C.P.I., Tavistock-crescent, of University College Hospital.
Walton, R. S., Hebden Bridge, of University College Hospital.
Wray, G. B., Nottingham, of University College Hospital.

Six candidates were rejected. The following gentlemen were admitted Members on the 28th ult., viz.:—

Adams, A. P., Kingston, student of St. Bartholomew's Hospital.
Ashe, W. P., L.R.C.P. Lond., Linden-gardens, W., of St. Thomas's Hospital.
Bond, C. J., Lutterworth, of University College Hospital.
Colborne, W. W., Camden Town, of University College Hospital.
Crook, J. S., Northfleet, Kent, of Guy's Hospital.
Faulkner, Joseph, Ipswich, of St. Bartholomew's Hospital.
Ford, R. W., Portsmouth, of St. George's Hospital.

(a) The names included within brackets [] obtained the number of marks qualifying for a prize.

Haig, Alexander, B.A. Oxon., Torquay, of St. Bartholomew's Hospital.
 Mosse, R. E. R., Cheltenham, of Guy's Hospital.
 Nadin, Joseph, Sheffield, of St. Bartholomew's Hospital.
 Newsholme, Arthur, L.S.A., Bradford, Yorks, of St. Thomas's Hospital.
 Parker, H. S., Putney, of King's College Hospital.
 Phillips, John, B.A. Cantab., Brighton, of King's College Hospital.
 Pope, F. M., B.A. Cantab., Brighton, of St. Bartholomew's Hospital.
 Saunders, F. H., Haverfordwest, of University College Hospital.
 Thompson, E. C., Hull, of the Hull School.
 Vivian, R. T., Camborne, Cornwall, of St. Mary's Hospital.

Eight candidates were rejected. The following gentlemen were admitted Members on the 29th ult., viz.:—

Baker, W. J., Millbrook, Southampton, student of St. Bartholomew's Hospital.
 Bowlby, A. A., L.S.A., Warrington-crescent, W., of St. Bartholomew's Hospital.
 Cuthbert, C. M., L.S.A., Mendlesham, Suffolk, of St. Bartholomew's Hospital.
 Easman, J. F., Sierra Leone, Africa, of University College Hospital.
 Grimoldby, G. H., Titney, Grimsby, of St. Bartholomew's Hospital.
 Harwood, J. G., Boston, of St. Bartholomew's Hospital.
 Hubbard, H. W., Plymouth, of St. George's Hospital.
 Pope, H. I. M., L.R.C.P. & S. Edin., West Malling, Kent, of St. Bartholomew's Hospital.
 Smith, John, L.S.A., Plumstead-road, of the Westminster Hospital.
 Spackman, H. R., Wolverhampton, of St. Bartholomew's Hospital.

Twelve candidates were rejected.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 24:—

Butterworth, John Tingle, Moseley, Birmingham.
 Henderson, Cecil, Pembridge-road, Clifton.
 Parsons, Herbert Flower, Frome, Somersetshire.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Barnes, Walter Stanley, University College.
 Currah, George Ingersoll, Guy's Hospital.
 East, Frederick William, London Hospital.
 Taylor, Thomas Percy, St. Bartholomew's Hospital.
 Tucker, Joseph, St. Mary's Hospital.
 Wilson, Henry Clark, London Hospital.

NAVAL, MILITARY, &c., APPOINTMENTS.

MADRAS MEDICAL ESTABLISHMENT.—Surgeon Alexandra McClorg, to be Surgeon-Major.
WAR OFFICE.—Surgeon William Smith Kerr, M.D., of the Scottish Borderers (Militia), to be Surgeon-Major.

BIRTHS.

GRIFFIN.—On July 17, at 12, Royal-terrace, Weymouth, the wife of F. C. G. Griffin, M.A., M.B. Oxon., prematurely, of a daughter.
HILLIARD.—On July 27, at 5, Belgrave-terrace, the wife of R. Harvey Hilliard, M.D., of a daughter.
NOBLE.—On July 24, at Kendal, the wife of S. C. Noble, M.R.C.S. Eng., of a son.
PETERSON.—On July 24, at Philadelphia, the wife of R. E. Peterson, M.D., of a son.
THOMAS.—On July 20, at Pocklington, the wife of Geo. H. W. Thomas, M.R.C.S.E., of a daughter.

MARRIAGES.

BLENKARNE-HARRISON.—On July 24, at Buckingham, W. L'Hereux Blenkarne, M.R.C.S. Eng., of Buckingham, to Anne, elder daughter of Alderman Harrison, J.P., of Buckingham.
BOUSTEAD-WILLIAMSON.—On July 22, at St. Paul's Church, Edinburgh, by the Rev. Hamilton Blyth, M.A., Incumbent of St. Paul's, assisted by the Rev. A. Long, M.A., Surgeon-Major R. Boustead, F.R.C.S., etc., H.M.'s Indian Army, to Kitty, second daughter of T. Williamson, Esq., M.D., F.R.S., F.R.C.S., of Carlton-terrace, Edinburgh, and Charlotte-square, Leith.
GREEN-FOX.—On July 24, at Holloway, T. Henry Green, M.D., of 74, Wimpole-street, to Charlotte Maria, daughter of the late Samuel Lincoe Fox.
HUNT-BLAGG.—On July 24, at Cheadle, Staffs, Thomas Hunt, F.R.C.S., to Emma Sarah, younger daughter of the late John Michael Blagg, Esq., of Rose-hill, Cheadle.
LIDDARD-STENSON.—On July 17, at Derby, William Liddard, of Kensington, London, to Charlotte Anne, eldest daughter of Thomas Stenson, Esq., Derby.
PAYNE-BENTHAM.—On July 23, at Burntisland, Fifeshire, Joseph Payne, of London, to Margaret Lee Blake, eldest daughter of Robert Bentham, M.D., of Hackney, London.

DEATHS.

OSMOND, THOMAS, M.R.C.S. Eng., at Thorpe-le-Soken, Essex, on July 26, aged 37.
PETERSON, BLANCHE, wife of R. E. Peterson, M.D., at Philadelphia, on July 26.
STANILAND, MARY ADELAIDE, wife of Charles Henson Staniland, solicitor, and youngest daughter of John Dawson, M.R.C.S., at Thames Ditton, Surrey, on July 25, in the 37th year of her age.
WARE, J. R., M.R.C.S., L.S.A., at Southampton, on July 25, aged 79.

VACANCIES.

GENERAL INFIRMARY, HULL.—House-Surgeon. Candidates must be Members or Licentiates of the College of Surgeons of England, Edinburgh, or Dublin; they must be qualified as general practitioners, registered, and unmarried. Applications, with copies of testimonials, to the Chairman of the House-Committee, on or before August 6.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Surgeon-Dentist. Candidates must be Members of the Royal College of Surgeons. Applications to the Secretary on or before August 6.

NORTHAMPTON GENERAL INFIRMARY.—Physician. Candidates must be Doctors of Medicine of one of the universities of the United Kingdom, and Fellow or Member of the Royal College of Physicians of London, and not under twenty-five years of age. Applications and diplomas, accompanied by testimonials of professional ability, to the Secretary, on or before August 26.

SHEFFIELD GENERAL INFIRMARY.—House-Surgeon and Assistant House-Surgeon. Candidates for these appointments must be Members of one of the Royal Colleges of Surgeons of the United Kingdom, or Licentiates of the Faculty of Physicians and Surgeons of Glasgow, also Licentiates of the Apothecaries' Company, or Licentiates of the Royal College of Physicians of London, and on the "Medical Register." Applications, with testimonials, to the Secretary, on or before August 16.

SUSSEX COUNTY HOSPITAL.—House-Surgeon. Candidates must be fellows or members of one of the Royal Colleges of Surgeons of the United Kingdom, and either Licentiates of the College of Physicians or Licentiates of the Society of Apothecaries of London; duly registered under the Medical Acts; unmarried, and under thirty years of age. Diplomas and testimonials to the Secretary at the Hospital, on or before August 13.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Downham Union.—Dr. W. B. Hunter has resigned the Welney District; salary £25 per annum.

Manchester Township.—Mr. James Magill has resigned the office of Resident Assistant Medical Officer at the Workhouse. Salary £140 per annum.

Sheffield Union.—Mr. Thomas Leeds has resigned the East District of the Township of Brightside, Bierlow. Area 1251; population 21,033; salary £50 per annum.

Stoke-upon-Trent Parish.—Mr. R. Garner has resigned the Workhouse; salary £150 per annum.

APPOINTMENTS.

Alnwick Union.—Alfred G. Cuffe, M.R.C.S. Eng., L.S.A., L.R.C.P. Lond., to the Embleton District.

Biggleswade Union.—Charles Edward Winckworth, L.R.C.P. Lond., M.R.C.S., to the Shefford District.

Bromsgrove Union.—Daniel W. Phillips, M.R.C.S. Eng., L.S.A., to the Romsley District.

Burton-upon-Trent Union.—Daniel H. Bastable, L.K.Q.C.P. Ire., L.R.C.S. Ire., to the Rosliston District.

Chesterfield Union.—John E. Slaughter, M.R.C.S. Eng., to the Bolsover District.

Devizes Union.—Frederick White Palmer, L.R.C.P. Edin., L.S.A. Lond., to the Fourth District.

Stamford Union.—Thomas Edward Stafford, M.R.C.S. Eng., L.R.C.P. Lond., to the West Deeping District.

Tavistock Union.—Wm. H. Rean, M.R.C.S. Eng., L.S.A., to the Beerferris District.

Tonbridge Union.—Wm. H. Coates, M.R.C.S. Eng., L.S.A., to the First District.

Wincanton Union.—Frederick Stockwell, M.D., M.R.C.S. Eng., L.S.A., to the Bruton District.

DR. HUMPHRY, F.R.S.—We are sorry to hear from Cambridge that this gentleman has met with rather a serious accident. In stepping out of the railway-carriage on his return to Cambridge on Monday night, after taking part in the examinations at the Royal College of Surgeons, he fell and severely injured his knee. The absolute rest required will, of course, prevent his attending the meeting of the British Medical Association at Cork, as intended, to invite the members to meet at Cambridge next year.

ANONYMOUS MUNIFICENCE.—At the recent meeting of the Governors of the Chelsea Hospital for Women, the Earl of St. Germans (the president) received at the hands of the Rev. Canon Fleming (one of the Board of Management) an anonymous donation of £1000 towards providing furniture for the new Hospital. In the spirit of true charity it is given on the express condition "that no name is mentioned," it being simply acknowledged as "from a Friend, per Rev. Canon Fleming."

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—Bacon.

THE MEDICAL ACT "AMENDMENT" SCHEME.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The members of the profession now on the Register should bestir themselves by writing to their Parliamentary representatives to oppose the passing of the Medical Amendment Acts or Act. The rights of those now registered should be respected, but it is obvious that they will not be unless some prompt action be taken. It is proposed to permit the registration of "additional qualifications," and such additional qualifications will spring up like mushrooms for two reasons—first, the fees will go to those greedy for them; second, those not now registered (chiefly young men, just crammed) will go in for these "additional qualifications." It will then only need some order of the Secretary of State or Local Government Board to render it needful for all applicants for certain offices to hold these new additional qualifications. There is, it seems, to be a new extra examination for Poor-law appointments. Thus a man of mature age desiring to purchase, say, a country practice or shift from one, if a Poor-law

appointment is in question, must either pass the new examination as purchaser, or as vendor sell to some quite juvenile who has passed this "extra." It will be most unfair to compel men of considerable standing, holding, say, double qualifications, having been in practice for years and duly registered, to pass any subsequently invented extra examinations for Poor-law appointments. The whole thing is a scheme for screwing fees out of the pockets of the profession. If the conjoint scheme is adopted, men will have not only to pass the College and Hall (or other examinations), but also the conjoint examination, and another again for Army, Navy, and Poor-law posts, for the conjoint board examination will not, it is said, relieve men of these "extras." The value on sale of country practices may be seriously affected by the proposed Poor-law extra examination; and the way in which the interests of the profession are being handled by the present members of the Medical Council shows the need for the direct representation of the profession on that Council. Why should "one-qualified men" like Mr. Simon, or gentlemen like Dr. Acland (who, it is stated, held two Oxford professorships—the Regius Professorship and Titchfield Professorship—for years, with excellent pay, but without doing the work), be held to represent the needs of the profession as to medical training and education? I, for one, repudiate the insinuations thrown out by Mr. Simon, that the members of the profession do not desire direct representation, and that the signatures to the memorial demanding this were improperly secured. The true gist of this new conjoint scheme is "centralisation," for three conjoint boards can compete with each other just as well as the existing corporations; and the other objects are to admit women to register, and to impose extra qualifications on men for Poor-law offices, so as to exclude, if possible, those now registered, and get in an easily manipulated class of youngsters who will be compelled to submit to any dictation from headquarters that they may think fit to impose. I write in the general interests of the profession, and, not being engaged in general practice, the matter does not affect me; but it will affect the rank and file of now registered practitioners very seriously.

I am, &c., M.D., M.A., &c.

COMMUNICATIONS have been received from—

Dr. HERMAN, London; THE REGISTRAR OF THE UNIVERSITY OF LONDON; THE SECRETARY OF THE LOCAL GOVERNMENT BOARD; Dr. ED. I. SPARKS, Crewkerne; Dr. RADFORD, Manchester; Signor LOMBARDI, London; Dr. J. PEARSON IRVINE, London; THE REGISTRAR OF APOTHECARIES' HALL, London; Dr. MACNAUGHTON JONES, Cork; Dr. S. K. COTTER, Ballincollig; Dr. WADE, Birmingham; Dr. A. GANGE, Manchester; Mr. M. BECHER, London; Messrs. CALVERT and Co., Manchester; Dr. B. NICHOLSON, London; Dr. NORMAN KERR, London; Mr. CHRISTOPHER HEATH, London; Mr. T. M. STONE, London; Dr. J. B. RUSSELL, Glasgow; Mr. URQUHART, Peckham.

BOOKS AND PAMPHLETS RECEIVED—

Edward J. Waring, M.D., *Bibliotheca Therapeutica, or Bibliography of Therapeutics*, vol. ii.—Léon Colin, *Traité des Maladies Epidémiques: Origine, Evolution, Prophylaxie*—Dr. Bourneville, *L'Année Médicale (1878)*—*Tariff of Medical Fees*, third edition—Edward Playter, M.D., *Elementary Anatomy, Physiology, and Hygiene*, for the use of Schools and Families—J. Hughlings-Jackson, M.D., F.R.S., *Remarks on the Routine Use of the Ophthalmoscope in Cerebral Disease*—*Transactions of the American Gynaecological Society*, vol. iii., for the Year 1878—E. Klein, M.D., F.R.S., and E. Noble Smith, L.R.C.P., M.R.C.S., *Atlas of Histology*, part 6.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—L'Union Médicale d'Orient—Boy's Own Paper—Sunday at Home—Leisure Hour—Australian Medical Journal—Anti-Vivisectionist—El Siglo Médico—American Practitioner—National Anti-Compulsory Vaccination Reporter.

APPOINTMENTS FOR THE WEEK.

August 2. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

4. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

5. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

6. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

7. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

8. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 26, 1879.

BIRTHS.

Births of Boys, 1245; Girls, 1237; Total, 2482.
Average of 10 corresponding years 1869-78, 2245·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	629	579	1208
Average of the ten years 1869-78 ...	845·3	783·3	1628·6
Average corrected to increased population ...	...	...	1743
Deaths of people aged 80 and upwards ...	...	...	25

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West ...	561359	3	4	10	1	1	...	4	1	3
North ...	751729	1	13	9	1	12	...	1	...	4
Central ...	334369	...	3	3	1	3	...	2	...	2
East ...	639111	...	19	14	3	10	...	1	...	9
South ...	967692	2	10	22	2	7	...	6	...	7
Total ...	3254260	6	49	53	8	33	...	14	1	25

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	29·645 in.
Mean temperature ...	...	57·4°
Highest point of thermometer ...	...	73·6°
Lowest point of thermometer ...	...	49·0°
Mean dew-point temperature ...	...	53·6°
General direction of wind ...	...	S.W. & W.
Whole amount of rain in the week ...	...	1·09 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 26, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending July 26.	Deaths Registered during the week ending July 26.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		Weekly Mean of Mean Daily Values.	In Inches. In centimetres.
London ...	3620868	48·0	2482	1208	73·6	49·0	57·4	14·11	1·09	2·77
Brighton ...	105608	44·9	79	42	71·0	50·0	58·3	14·61	0·82	0·81
Portsmouth ...	131821	29·4	83	26	...	...	...	...	...	...
Norwich ...	85222	11·4	44	20	...	...	...	...	...	...
Plymouth ...	74293	53·3	49	28	39·5	51·0	57·4	14·11	1·09	2·77
Bristol ...	209947	47·2	119	57	69·9	48·2	56·9	13·83	0·29	0·74
Wolverhampton ...	75100	22·1	48	28	68·1	48·0	54·9	12·72	0·75	1·90
Birmingham ...	388384	46·3	295	123	...	...	...	...	...	...
Leicester ...	125622	39·3	78	47	...	...	...	...	...	...
Nottingham ...	169398	17·0	110	46	72·0	45·7	57·2	14·00	0·98	2·49
Liverpool ...	538338	103·3	391	192	62·9	51·1	54·5	12·50	0·85	2·16
Manchester ...	361819	84·3	219	144	...	...	...	...	...	...
Salford ...	177849	34·4	133	59	...	...	...	...	...	...
Oldham ...	111318	23·9	85	44	...	...	...	...	...	...
Bradford ...	191046	26·5	110	68	67·6	50·6	55·2	12·89	1·14	2·90
Leeds ...	311860	14·5	224	115	64·0	50·0	55·1	12·84	1·15	2·92
Sheffield ...	297138	15·1	195	100	68·0	46·5	56·2	13·44	0·94	2·39
Hull ...	146347	40·3	93	43	...	...	...	...	...	...
Sunderland ...	114575	41·4	83	47	74·0	50·0	55·3	12·95	1·94	4·93
Newcastle-on-Tyne ...	146948	27·4	93	52	...	...	...	...	...	...
Edinburgh ...	226075	53·9	153	71	64·5	49·3	55·8	13·23	1·47	3·73
Glasgow ...	578156	95·8	500	197	76·8	56·3	62·5	16·95	0·92	2·34
Dublin ...	314666	31·3	178	150	66·8	50·6	57·6	14·23	0·75	1·90
Total of 23 Towns in United Kingdom	8502896	38·6	5352	2907	76·8	45·7	56·7	13·72	0·98	2·49

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·65 in. The lowest reading was 29·14 in. on Sunday evening, and the highest 29·95 in. on Friday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

FORTY-SEVENTH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION,
HELD IN CORK, AUGUST 5, 6, 7, AND 8, 1879.

PRESIDENT'S ADDRESS.

By DENIS CHARLES O'CONNOR, A.B., M.B.,
Professor of the Practice of Medicine in Queen's College, Cork.

MY PROFESSIONAL BRETHREN, MEMBERS OF THE BRITISH MEDICAL ASSOCIATION,—I wish I could in suitable terms convey to you my deep sense of gratitude for the honour you have conferred on me by electing me to be your President. The gratification which I should feel on receiving this honour is, however, associated with a consciousness of my demerits, contrasting myself with the distinguished men who have filled this chair up to its latest occupant, Dr. Falconer, whose urbanity, courtesy, and high professional rank largely contributed to the success of last year's meeting at Bath; but, above all, when I remember that the last and only meeting in this country was presided over by Dr. Stokes, whose name is fresh in the memory of every Irish physician, whose talents shed a lustre on his profession and country, and whose virtues—simplicity, truth, and honour—made him the idol of all those who had the happiness of his acquaintance. As I cannot deceive myself with the belief that I owe this elevation to superior learning or professional eminence, you, perhaps, give me credit for qualities of a less elevated character, which would enable me to represent worthily the dignity and decorum which will be sure to characterise your proceedings. The keystone of an arch is an important part of the structure, solely because by its position it establishes an equilibrium between opposing forces. The chairman of a meeting exhibits a similar passive resistance, in moderating the expression of contradictory opinions, and preserving the calm necessary for the discussion of great subjects.

Of one thing I am certain, that, whatever defects or errors may be seen in the execution of my official duties, they will meet with a favourable construction—more especially from the most distinguished members of my profession. The most charitable critics are those who themselves are beyond the reach of criticism.

Some of my predecessors in this chair, on occasions like the present, thought well of pointing out circumstances of interest associated with the locality of the meeting. In a few brief words, I will follow their example. Though you have not come hither for æsthetic enjoyment, still, the surroundings of Cork, which Spenser called the “beautiful citie,” must attract your pleasurable notice on every side. This, added to the mildness of the climate, makes the vicinity of Cork an agreeable as well as valuable winter health-resort. In this character it is associated with Queenstown and Glengarriff, which has recently acquired a high repute. The sanitary condition of the city is exemplified by the low death-rate, and the gradual disappearance of typhus, which in the last century appeared every seven years; in the early part of this century, every ten years; and now, since the famine fever, we have had but one outbreak of any severity, and that nearly fifteen years since. We owe this to the admirable supply of pure water, and to an extensive system of sewerage, provided by the Corporation. I am far from saying that there is not still much to be done by the sanitary authorities. Pure air and pure water are not useful solely in preventing epidemics; they are also necessary for the preservation of a general healthy condition of the system.

It might not be without interest to mention that, a few paces from where this meeting is being held, stood Gill Abbey, one of those collegiate monasteries so famous in this country in the eighth and ninth centuries, to which, according to Camden and Venerable Bede, “the gentry

of England flocked as to a mart of learning,” and “which sent forth swarms of holy men all over Europe, spreading learning and religion.” We see some resemblance to that happy period in this meeting, when Englishmen come hither to repay, with great interest, any literary indebtedness their ancestors might have incurred. I do not refer to this oasis in Irish history as families in reduced circumstances display the portraits of distinguished progenitors, but rather to stimulate the present generation to imitate their great ancestors, and, like them, to seek distinction for themselves and their country in the practice of virtue and the cultivation of learning. Though entering late in the race of civilisation, if we take this city as affording an example of the general result, we will be found to have made rapid advances in a short time. Many years of this century had passed before any arrangements were made for the education of the poor, especially of the male sex. Now, 9000 children are receiving gratuitous education—in some instances of the highest order. It may be paradoxical, but it is true that in these instances it is better than could be obtained for any amount of payment. It is creditable to this city that it freely taxes itself for the support of a school of design; and that it is the only city, as I understand, that pays a tax for the support of a musical academy. It has contributed a few distinguished names to the roll of British artists, in James Barry, Maclise, and Hogan; and to literature, in Magin, Father Prout (Mahony), and Justin McCarthy; and to both a large number whose reputation is not so widely known. In sympathy with the poor—the highest function of civilisation—it will be found that ample progress has been made in this city. Within a very few years, ten different asylums have been established: for orphans, for the aged, or those who have strayed outside the confines of morality in early life. Five new hospitals have been opened, in addition to those already in existence. This has emanated, not from humanitarianism nor from utilitarianism, but from the spontaneous outpouring of Christian charity. I make no distinction between different religious denominations. Happily, the barriers that separated these have been removed, and, seeing each other from a nearer point of view, men have found good citizenship and brotherly love where they expected to meet aversion and hostility. The same good feeling has been manifested of late in the courtesy shown towards each other by the different sections of the Corporation; and may we not believe that it is owing to such teaching and example from the affluent, that serious crime is almost unknown in this city; and that, for more than half a century, no high sheriff was under the necessity of carrying out the extreme penalty of the law within this borough?

Having, I fear at too great length, referred to the physical aspect of the city which you have honoured with this visit, and to the social and moral condition of its inhabitants, as they appear to me, I must proceed to make some observations on the composition and objects of this Association, which must appear trite to all but the most junior members or such of the public as take an interest in our proceedings.

When several thousand men, many of them the most distinguished and honoured in their profession for genius and learning, are banded together for one common object, we may readily assume that object to be large, comprehensive, and benevolent; and what purpose of greater magnitude can occupy the human mind or stir the human heart, than the effort to lighten the burden of sickness and misery, and to defer the inevitable death in which we all have a common inheritance? In forwarding this work, we follow our instincts as men, obey our duty as physicians, and receive a divine sanction as Christians. It can then be well understood how so many, leaving their homes, crossing the seas or ocean, have come hither to unite in this common brotherhood of benevolence. I only hope that the success of this meeting, by increasing our knowledge and diffusing throughout the entire medical community sound principles to guide our practice, may be the reward of their sacrifices.

A hasty survey of the composition of this Association, the brilliant genius of many of its members, and their continuous labours from year to year, would lead to a feeling of disappointment that greater results have not followed, which would place medical doctrines on a firm lasting basis, rendering them free from doubt or controversy. This mode of thinking arises from comparing medicine with the physical sciences, in which all phenomena may be traced to a few

general principles. Such complete generalisation is not to be expected in the science of vital phenomena, with such multitudinous details, varying under the influence of an equal number of circumstances. Still, to this end have been directed all our labours, hitherto attended by an ever-increasing approximation. We are not to reject what is useful because of the garb in which it is presented to us. Even in physical science, isolated facts were availed of for the benefit of mankind when the theories which explained them were still erroneous. Sailors could navigate their ships before the time of Copernicus, and the movements of the heavenly bodies were understood before Newton explained the cause; while the manner in which this cause acts is still a mystery, and the greatest mathematicians lament the shortcoming of their most accurate science. All knowledge appears to be but a fragment of truths beyond our reach. It is so with medicine. We can learn from sacred scripture, as well as from Homer, the estimation in which our profession was held from the earliest dawn of civilisation. If we had no other guide but the works of Hippocrates, our art would still be a great boon to mankind. The discoveries of Harvey, Jenner, Hunter, and Laennec have each after the other added to our stock of knowledge, but did not efface what had previously existed. We are here to follow in their footsteps with the light they have shed on our path, and with aids to the investigation of physiological and pathological phenomena which they did not possess. A new point of departure has taken place in the application of the microscope to ascertain the minute structure of organs, and the changes made in them by disease, which has already produced splendid results. It need not, however, be feared that you will not have a sufficient scope for your labours, when the origination and transmission of nervous power is still undiscovered. The limited nature of our powers of observation and the vastness of the fields for discovery will for ever furnish fresh objects to stimulate the human mind and preserve it from stagnation, which is equally destructive of mental and of physical energy. If thus mental activity find stimulus to its energies in the cultivation of other sciences, how much more should it be in medicine, which may be called the science of sciences, not alone from the importance of its aims, but because every branch of natural knowledge is made auxiliary to its development, whilst the boundaries between physics and physiology are every day disappearing, till the latter has become almost a branch of the former—its laws arranged with supreme wisdom for the production of vital phenomena. When the subjects to be investigated are so many and so diversified, we can see the necessity of an assemblage such as the present of men with minds equally diversified in character, each fitted to develop some particular branch of knowledge, and all uniting, like converging rays of light, to illuminate the path of the practical physician. In this the economy of a division of labour is perceptible in nature's design as in the ordinary affairs of life.

Some there are who are destined by their nature to increase the stock of human knowledge. Uninfluenced by self-interest or personal ambition, seeking no other reward but the gratification of an instinct, fed by a hope of ultimate success, not disheartened by failures or by adverse criticism, they labour onward till through the darkness a light is seen breaking, which reveals to their receptive minds, as an established truth, that which was before an unsettled theory or a happy conjecture, and clearing away difficulties which for ages disturbed the minds of medical inquirers. In all the great centres of thought, though divided by space, still united for a common object, such men have by their joint labours, within the last half-century, raised a solid superstructure of physiological and pathological knowledge which has all the characteristics of a true science. The briefest reference to the subjects which have been undergoing investigation by members of this Association since its last meeting (embracing the most important and abstruse problems in medicine) would show that they are imbued with the same disinterested zeal and filled with the same lofty ambition as those to whom I have referred. They do not, however, constitute a large section of this Association, and would not of any similar assembly. *Non omnia possumus omnes*—we cannot all do all things, but everyone can do something towards the common object. For the practical man—the every-day working physician—there is presented the important duty of collecting facts from which the man of

genius will derive general principles, and thus assist in bridging over the large space which divides physiology and pathology from practical medicine. To make a good syllogism with physiology and pathology, as major and minor premises, and the treatment of disease as the conclusion, remains still the difficulty to remove which all our energies are directed. Theories founded on imperfect generalisation cannot be adopted in medicine with as little injury as in other sciences. It is of no consequence to the student of optics whether the undulatory theory of light be true or false, or to the astronomer whether the Copernican system is capable of mathematical demonstration; but it is of great moment to the physician as to whether alcohol is a food or merely a stimulant, whether it is entirely or in part, or not at all, consumed in the body; and still contradictory statements of this kind have been propounded for the last twenty years in succession, each professedly founded on experiments. In this instance, as in many others, error passes by a species of exosmose to the general public, who adopt the views most agreeable to the senses, believing alcohol to be indispensable for the cure of all diseases, and for sustaining bodily health and mental energy. Happily, the timely declaration of 260 of the most eminent London physicians—which might be printed in letters of gold—has placed the question on its true basis, stating that, “while unable to abandon the use of alcohol in some diseases, no medical practitioner should prescribe it without a sense of grave responsibility, and with as much care as any powerful drug.”

This and several other instances show that, although practical men should bow to the declarations of science, they should hesitate before accepting unfinished generalisations, which a fresh experiment or a newly ascertained fact might destroy. Even deductions derived from experiments on animals, to test the effects of medicines on the living organism, though of great value, must be received with a certain amount of caution—justified by the fact that certain deadly poisons for man are nutritive food to some animals; that zymotic diseases are not intercommunicable between men and animals, or rarely so; and that even age and idiosyncrasies modify the effects of medicines, so as to make it uncertain as to what may be the effects of a given medicine in one case when we see its effects in another. Add to this the unnatural condition in which the animal experimented on is placed. How modestly, and at the same time philosophically, does Dr. Rutherford express himself on this subject. After “fourteen hundred hours of hard labour,” spent in his investigation, he says, “the experiment on the healthy liver of the dog, on the normal and abnormal human liver, are three sets of experiments closely related, but still distinct. The facts derived from any one of the three cannot be substituted for either of the other two. Each set of facts has its own proper place, and must be kept there. And then he advises the clinical observer to test in his practice the deductions derived from experiments on animals. We can thus see that, in the deliberations which will take place in the sectional meetings, there is a place for the purely practical as well as for the scientific man. Their views test and are tested by each other. Rationalism enlightens empiricism, and enlightened empiricism is a check—a drag-chain—on hasty theorising, from which medicine suffered so much injury through its whole history. Much as science has accomplished in establishing the physiological action of many medicines previously used empirically, the practical physician must still in most cases be guided by the results of the combined experience of wise men, free from egotism, vanity, self-interest, or other passions which cloud the judgment and prejudice its conclusions—while always hoping for and striving after a full knowledge of the relation between the medicine and its physiological effects. There are many diseases entirely under the control of medicines; others only partially and indirectly; and a third class, zymotic diseases, in which we can only apply our treatment to the cure of symptoms and regulation of functions, leaving to nature the task of bringing the disease to a favourable issue. I believe that all attempts to cut short these diseases are fruitless or injurious.

In the early part of this century a different opinion prevailed, and attempts were made to arrest fever by strong purgatives and bleeding. This violent treatment was soon discontinued, but I cannot help thinking that there are again signs of a return to the old heroic treatment, when, in a work of the highest repute, I find it recommended to begin the

treatment of typhoid fever with four doses of calomel of eight grains each, six cold baths in twenty-four hours, twenty-seven to forty-five grains of quinine to be given frequently in the course of the disease, and twenty-two grains of digitalis as an ordinary dose. We walk in darkness with a slow and cautious step; but here, where we are utterly ignorant of the processes by which the poison is eliminated from the system, we are recommended to give medicines which would test the constitution of one in perfect health. This treatment, though recommended by deservedly high authority, has not as yet found favour in this country, where confidence in the curative powers of nature in this class of disease still prevails. When we see the care with which each bodily organ is protected, and the wisdom with which the functions are regulated for the preservation of life, we cannot believe that creative power which arranged those things so wisely would send the finished work adrift to combat with destructive forces without pre-arrangement for reparation in case of injury, internal as well as external, in fever as well as in fractured limbs, or in union by the first intention. The physiology of health is not more wonderful than what may be called the physiology of disease, by which disturbed functions are restored to their normal condition. It is not a humiliating office for the physician to study the means by which Nature accomplishes her ends, and, as far as his knowledge permits, to imitate her. I know the assertion of a *vis medicatrix naturæ* is now nearly obsolete, and equally so the seeking of primary causes for vital phenomena. These old-fashioned ideas have been extinguished by modern philosophy, which asserts that all organisation and its operations are the result of blind chance, without a mind to fashion or to guide them. The physician, with his opportunities for observation, must be blind indeed who does not see beyond this darkness a clear light, showing him that all nature has been conceived and formed in beauty and order, the result of a divine purpose, directed by divine benevolence.

Whatever differences there may be in the expression of our views about treatment, or whatever disputes about theories, when we meet disease in a concrete form, in a fellow-man appealing to us for help, minor distinctions disappear, and we find we have been differing in words, not in substance; and as happens in cities, from frequent consultations, there is a levelling of extreme views, and an unwritten practice of medicine becomes established. The chaff is scattered to the winds, and solid truth remains. "*Opinionum commenta delet dies; naturæ judicia confirmat.*"

Whatever drawback the physician might feel on the pride and satisfaction which ought to attend the practice of his profession, there is none from the study of hygiene and the enforcement of its principles on governments, corporations, and the general public. Here he is the more than disinterested servant of humanity, elevated far above the ordinary pursuits of professional life. Much has been accomplished by legislation since Jenner reversed the sentence of death or deformity pronounced against millions of the human race, removing the dark shadow that hung over every cradle. Still this great science is only in its infancy, and must ultimately sweep from the nosology most preventable diseases. A most important branch of this subject—"personal hygiene"—is not influenced by legislation, each individual having the power of obeying or violating its laws, at his discretion—guided on the one hand by his intellectual and moral faculties, and on the other yielding to the cravings of his animal nature; the one tending to elevate, the other to depress and degrade by subjecting the will to sensual gratifications and emotional instincts. The physician, in his private consultations, is the lawgiver in these cases; and never does his profession afford him greater power of doing good, by enabling him to give advice to each patient as to the food suitable to his age, occupation, and circumstances in life, as to the danger of luxurious living, and the deceitfulness of the senses, ever craving what is pleasing instead of what is useful; above all, by counselling extreme moderation in the use of stimulants, if they should be required at all. And when we find how weak man's nature is to resist animal enjoyments, particularly the weakly, the miserable, and the poor, who are willing to purchase an hour's exaltation of their depressed spirits at the cost of many hours' misery; and how impossible it is to stop the downward course (*facilis descensus*) once begun; we may find many to whom we may advise

absolute restraint, and thus counteract the vitiated opinion which prevails amongst the public, that stimulants are useful in every form of disease—every derangement of health,—which they commence to use as a cure, and continue as a poison. I cannot avoid speaking strongly on this subject, knowing the widespread destruction resulting from these erroneous views.

Having referred "feebly, I fear, and only in obedience to official custom," to some of the objects of the Association, I must conclude with a few remarks on the influence these meetings are calculated to produce on the personal and professional character of its members. It must stimulate the industry of each of us to see men from the remote corners of the earth, of different nationalities, speaking different languages, assembling, ready to lay down their prejudices, if any exist, or offer up any increase of knowledge they may have attained, at the common altar of science, in order that through all civilised nations there may be a uniformity of opinion and practice. The old man, no longer "*laudator temporis acti, castigatorem censorque minorum*," enters into free discussion with his younger brethren, claiming no consideration except what may be conceded to his knowledge. Perhaps his slowness to adopt new views, or unwillingness to discard old opinions any more than old friends, may temper the heat of the youthful mind which Horace, the Shakespeare of antiquity, describes thus:—" *Colligit ab ponit temere et mutatur in horas*," each mind being thus the complement of the other; nothing is adopted merely because it is new, and nothing rejected for being old. The physician whose name has already reached the temple or fame, to be its permanent inhabitant, comes hither to have his opinions tested by the humblest member of the profession; and thus many, who have been hitherto contented with routine knowledge, will be stimulated to enter on a renewed course of study. We should always feel that, though receiving no supernatural mission, we have assumed responsibilities that attach to no other calling. We profess to be ready, night and day, to meet all emergencies. In the army, the officer when on duty is punished doubly for any offence or negligence committed; but the physician is always on duty, ever in actual combat: the enemies being disease and death. In years gone by, the physician asserted the speciality of his calling by pretentious peculiarity of dress. This generation does not tolerate class distinctions of this nature. By levelling up and levelling down, the gentleman and his groom, the young lady and her brother, have become very much alike. Still there is a dignity without pomp, a dignity associated with humility and simplicity of character, which the physician should possess, making him ever feel that society and his profession have a claim on his conduct and actions. His ministrations to the poor, in dispensaries and hospitals, if he would only spiritualise his motives, would raise him to the highest dignity attainable by humanity.

To show the estimation in which our profession is held by many outside of it, I will quote a few words from an English divine, Father Faber. Writing of St. Luke as a physician and painter, he says: "There is something kindred in the spirit of the two occupations. The quick eye, the observant gentleness, the appreciation of character, the genial spirit, minute attentiveness, and sympathising heart, the impressionableness to all that is soft and winning, weak and piteous—all these things belong to the true physician. He is the minister of love, not of fear, vested with a sympathetic office of consolation, which seems the more tender and unselfish because it is official." Few there are who could claim this portrait as their own. Still, all should labour towards this ideal, however exalted. Unless the heart be kept warm by sympathy, familiarity with suffering will make it hardened; and the physician becomes a skilful machine, deprived of all moral enjoyment in his actions. Never could it be more necessary that our minds should be pure and our motives exalted, than when entering on the work of this Association. There is something solemn in the deliberations of large assemblies, which, like the force of gravity, attract individual opinions as to a common centre—rendering it all the more necessary that unalloyed truth, wisdom, and benevolence should characterise our proceedings. And, returning to your homes, this meeting may be ever associated in your minds with a recollection of duties conscientiously discharged; of the friendship of early life restored, and of new ones formed on mutual respect, similarity of tastes and pursuits;

and of renewed devotion to the advancement of our great profession and the welfare of its members.

Allow me, before I conclude, to avail of this the first opportunity presented to me to express, on behalf of the profession in this city, our pride and satisfaction at the alacrity with which our fellow-citizens have come forward, in spite of adverse circumstances, to do honour to this Association on their arrival amongst them. In acting thus, they will transmit to a future generation the character for hospitality and respect for the stranger inherited from their ancestors. You have only to look through the College, at the excellent arrangements made for holding the various meetings, to know that there is another person eminently deserving of our gratitude—namely, the President of the Queen's College, who has never ceased, by counsel and by action, to aid us in the preparations for this meeting, as he does in every movement calculated to benefit his fellow-citizens. How can I speak, without apparent exaggeration, of the exertions of Professor Jones in promoting the arrangements necessary for the success of this meeting? When he first proposed inviting the Association to Cork, I was nervous and alarmed at the magnitude of the undertaking; but I soon became aware that he made no miscalculation, and that he was able to realise his original promises by unceasing energy, tact, and thorough knowledge of the subject. He was not only the first to suggest the invitation to Cork, but the first to form a local branch in Ireland, thus establishing a cordial union between the members of our profession in the two great divisions of the empire. For myself, I have to express to him my warmest thanks for saving me much trouble and anxiety; and I am sure I can express the same feeling on behalf of every member of the profession in this city. Honour to whom honour is due.

ADDRESS IN MEDICINE.

Delivered before the British Medical Association at Cork.

By ALFRED HUDSON, M.D., F.R.C.P., M.R.I.A.,
Regius Professor of Physic in the University of Dublin.

LAENNEC: HIS LABOURS AND THEIR INFLUENCE IN MEDICINE.

WHEN the Council of the British Medical Association did me the honour to nominate me to deliver the Address in Medicine on the present occasion, my great difficulty was the choice of a suitable subject: what to select from the wide field of the past, present, and future of medicine. For not only do subjects of especial interest seldom present themselves, but, moreover, while on these occasions there is, among men engaged in so serious and engrossing a pursuit as ours, much interchange of serious thought and of practical suggestion, it may be questioned if the motive of our coming together is so much a desire to learn, as a feeling that (to borrow the language of an eloquent prelate) "whatever takes us out of ourselves and throws us back into the past or forwards into the future, does us good if it makes us spend a few happier hours and relieves us from the weary monotony and the heavy drudgery of life."

To attempt a review of the triumphs of the present and recent past would be to follow, by unequal steps, in the path of those who have so ably and exhaustively treated the subject on many previous occasions, and to repeat to-day what you have read in the retrospects, records, and journals of yesterday; while to portray the glories of the future of medicine would require a prescience which I do not possess; besides, having arrived at an age when a man naturally becomes a *laudator temporis acti*, I felt attracted to the consideration of the more remote past, and I resolved to offer a few observations on the history of its several epochs and of their representative men, and more especially of the great revolution which was in progress in my student days, when the cra of nosology was superseded by that of pathology; when the theoretical deductions of Cullen and his predecessors were replaced by the inductive method of the present day, as inaugurated by Laennec.

In a comprehensive review of the past, three things attract our attention: its history, its progress, and the lives of the men who have marked its successive epochs.

Such a task differs from that of the student, or of the worker of the present day, in that, while the one necessarily seeks for advanced knowledge in the most recent sources,

and the other founds his conceptions on those of his more immediate predecessors, a retrospect of the kind involves some notice of men whose works are now obsolete, and whose names have become mere traditions in the history of the science.

Its history has not always been one of progress, but rather a record of barren hypotheses and fanciful systems; of the lives and labours of men, often of marvellous ability and industry, whose aim was to attain that which was unattainable:

"Crying for the light,
And with no language but a cry."

These men have been sometimes compared to giants, who, taking us in their arms and lifting us above their heads, have disclosed to us countries and prospects which they themselves could never discover. Living before their age, and being unable to explain observed phenomena by the aid of the imperfect science of the time, they resorted to hypotheses evolved out of their own consciousness, which were really not explanatory of diseased processes, while their ideas of therapeutics were made to correspond with these imaginary conditions. Not that their labours were altogether useless; for, as has been well said: "As in the growth and development of the body the daily death of the tissues is in strict relation with the activity of life, so in the organic growth of thought through the ages there is a corresponding decay or consumption of erroneous doctrines—a death of the false in strict relation with the growth of the true."

The comparison of the growth and development of science to that of the human body is by no means a novel one, and it is employed by Lord Bacon in terms peculiarly applicable to clinical medicine: "As young men," says Bacon, "when they knit in shape and perfectly, do seldom grow to a further stature, so knowledge, while it is in aphorisms and observations, is in growth; but when once it is comprehended in exact methods, it may, perchance, be farther polished and illustrated, and accommodated for use and practice, but it increaseth no more in bulk and substance." The different stages of this comparison of progress correspond with the lives and labours of the great men who have marked the successive epochs of the science. While those of Harvey and of Haller are associated with the birth and progress of physiology, and Hunter is commemorated periodically as the founder of scientific surgery, the great names of Hippocrates, Morgagni, and Laennec correspond to the eras of aphorism, observation, and method, which each of them in turn illustrated by his life and works—each life, moreover, affording practical lessons of value. Thus the life of Hippocrates teaches the value of that early acquaintance with the objects of his future study, now too much overlooked. We are told that "amid the sports of childhood he received from the mouths of his parents the elementary notions of medical science. By viewing diseases he learnt to distinguish them." Himself convinced of the superiority of this method of practical instruction, Hippocrates wrote: "In order to improve to a certain degree the knowledge and practical skill of the physician, it is necessary (independent of natural genius, the place of which nothing indeed can supply) that he be placed from early infancy amid all the objects of his researches, and that every means of instruction be employed with unremitting assiduity." (a)

Of the character of his writings, Cabanis remarks: "He brought the science back again to its natural channel, that of rational experience. He freed medicine from false theories, and formed for it sure and solid systems. His books of aphorisms have in all ages been regarded as models of grandeur of conception and precision of style. Through the whole of them we may remark that truly universal method, the only one which is adapted to the mode in which our intellectual faculties are exercised, and which in every art and in every science, by making the principles flow naturally from the observations that have been collected, transform the deductions from facts into general rules." This writer adds: "If the disciples of Hippocrates had understood his lessons well, they might have laid the foundation of that analytical philosophy by the aid of which the human mind will be henceforth enabled to create to itself, as it were

(a) It is worthy of remark that in the course of a discussion on the subject of education in the General Medical Council, in 1877, Sir James Paget stated, as the result of his own experience, that everything is in favour of putting a student at once to the daily honest practice of his profession by apprenticeship in the country for the first year. (Reported in the *Medical Times and Gazette* of June 2, 1877.)

daily, some new and improved instruments of advancement.' It is scarcely necessary to remark how exactly this prediction has been realised in the history of physical diagnosis and in the life of Laennec.

The traditions of Hippocrates and his natural method, having outlived the centuries of dogmatism and of successive systems, have survived to the present day, transmitted through the dark ages of medicine in the aphorisms of Lommius, Baglivi, Boerhaave, Stahl, and others—aphorisms which, while comparatively free from the dogmatism of the age, contain matter of the highest practical value. One of the most illustrious of these writers (Baglivi) devotes two chapters to treating of the hindrances (*impedimenta*) of progress arising from neglect of ancient aphorisms and observations, and love of new systems, maintaining that "the entire value of the history of diseases depends on the careful and patient description of that which the observer, skilled in the mode of invasion, the progress, and issue of diseases, has perceived." The writings of these men, like those of their great master, are especially distinguished by the fidelity of their descriptions of symptoms and the sagacity with which they anticipated sequences. They read the prognostic signs of disease with an accuracy and an insight

"Whose old experience doth attain
To something of prophetic strain,"

and are for this reason, if for no other, worthy of the careful study of the practitioner. By the side of these names we place that of the English Hippocrates, Sydenham, the great observer, who, says the editor of his works, now stands out, at nearly the end of a second century, as the great representative of the practical medicine of practical England.

The influence of Sydenham is especially seen in the writings of the succeeding century, of Grant and Huxham, of Pringle, and others whom a distinguished American writer on fever terms "those glorious old British observers—the types and ornaments of a school never since surpassed by their countrymen." And I may here remark that the study of these and the above-mentioned older writers would greatly tend to moderate extravagance of doctrine and exclusive devotion to special methods of treatment in our own day. These British writers, as Dr. Bartlett observes, clearly recognised the distinction between the two great forms of continued fever, which the great majority of the British physicians in his day "refused to admit, or to endeavour to ascertain"; while, of the wisdom and breadth of their views of treatment, no higher testimony need be adduced than the candid acknowledgment of Dr. Stokes, who says in his memoir on the state of the heart and use of wine in typhus fever, "I confess that it was not until several years after I commenced practice that I became fully aware of the erroneousness of what is termed the anatomical theory of disease; and I feel certain, humiliating though the confession may be, that the fear of stimulants, with which I was imbued, was the means of my losing many patients, whose lives would have been saved had I trusted less to the doctrine of inflammation and more to the lessons of experience given to us by men who observed and wrote before the times of Bichat or of Hunter."

I would add one remark to the above. It is, that a careful perusal of the excellent, albeit somewhat antiquated, chapter of Lommius on the diet of a fever patient might help to guard the young practitioner from the too prevalent perversion and abuse of Graves's famous saying, "He fed fevers."

In England, these great observers were succeeded by others scarcely less noteworthy; by Fothergill and Fordyce, Heberden and Currie, whose writings will live as long as the art is cultivated.

Contemporary with these men were others: men of great ability, but who aimed at generalisations rather than observation, and strove to construct systems to which the medicine of the future should conform. I need not tell you that the systems of Cullen, of Brown, and of Darwin have long become things of the past and forgotten.

But we pass on to the epoch of Pathology and Clinical Medicine inaugurated by Morgagni and his contemporaries and successors. In an admirable address, delivered before the Glasgow Pathological and Clinical Society in 1864, Professor Gairdner thus tersely describes the character of Morgagni's work:—

"In investigating the *seats* of diseases, Morgagni is not content to record the *coincidence* of a lesion in an organ with

the symptoms apparently due to disordered function in that organ.

"For the first time almost in the history of medical inquiry, he insists on examining every organ, as well as the one suspected to be chiefly implicated; not only so, he marshals with the utmost care, from his own experience and that of his predecessors, all the instances in which the symptoms have existed apart from the lesion, or the lesion apart from the symptoms. He discusses each of these instances with severe exactness in the interest of truth, and only after an exhaustive investigation will he allow the inference either that the organ referred to is, or is not, the seat of the disease.

"And in like manner in dealing with causes: a group of symptoms *may* be caused by certain organic changes—it may be even probable that it is so—but, according to Morgagni's method, we must first inquire into *all* the lesions of organs which occur in connexion with such symptoms; in the second place, we must know if such lesions ever occur, or occur without the symptoms; and, again, if such symptoms can be attributed in any cases to other causes in the absence of such lesion."

Did time permit, I would fain add to Dr. Gairdner's illustrations some examples of the glimpses of facts pointing to future observations and discoveries which are scattered through the portion of Morgagni's work relating to thoracic diseases. Such are his remarks on the connexion between disordered states of the nervous system and deranged respiration (Letter 15); his notice of the sound heard on applying the ear to the præcordial region in a case of pericardial effusion (Letter 16); of the decubitus in empyema and the displacement of the liver in that disease; of the signs of dilatation of the right ventricle, and the clear explanation of the phenomenon of jugular pulsation, and the wonder he expresses that the increased bulk of the heart is not attended to in the histories of asthma; and of the curious case (quoted by Wardrop in his work on the heart) of alteration in the radial pulse caused by a fall on the spine, and inexplicable until the discovery of the vasomotor system of nerves; to lesions of which similar cases have been referred by Dr. Russell Reynolds and Dr. J. W. Ogle.

To those who, like Dr. Gairdner, look to what Morgagni has done for pathology and clinical medicine "in the light not only of his own researches, but of those of his successors," it would seem difficult to over-estimate the value of his work and influence. But that the work itself was regarded by his more immediate successors rather as a record of symptoms and morbid appearances than as an exposition of morbid processes in the living body, as wanting the explanatory why, and consequently of little assistance to the practitioner at the bedside, appears from the language of Corvisart, who, after stating that it will immortalise its author, adds the remark that this great work "neither helped nor hastened the art of diagnosis"; adding, in a foot-note, that "he himself had formerly read a memoir to the Institute, expressing the idea of a work analogous, but in an inverse sense from that of Morgagni, with the title '*De sedibus et causis morborum per signa diagnostica investigatis, et per anatomem confirmatis*'; but that, for such a work, at least another Morgagni would be required." (b)

The hour and the man were both at hand: and, as it has been said of Harvey, "that on the doctrine of the circulation the dawn had long been visible," Harvey came, and the sun arose; "so Laennec appeared, and realised the prevision of Corvisart by substituting a living for a dead pathology, and revolutionising clinical medicine by a method of diagnosis which, by revealing the seat, nature, and *progress* of disease at the bedside, anticipated the disclosures of the post-mortem theatre, and endued the dry and unexplained facts of both symptoms and morbid appearances with meaning and with power."

"Time," says Dr. Stokes, "has shown that the introduction of auscultation and its subsidiary physical signs has been one of the greatest boons ever conferred by the genius of man on the world.

"A new era in medicine has been marked by a new

(b) "Dans un des mémoires que j'ai lus anciennement à l'Institut j'avais émis l'idée d'un ouvrage analogue mais en sens inverse pour tant à celui de Morgagni; il aurait en pour titre, *De sedibus et causis morborum per signa diagnostica investigatis, et per anatomem confirmatis*. Mais pour un tel ouvrage il faudrait au moins un autre Morgagni." ("Sur les Maladies du Cœur. Discours préliminaire," page ix.)

science, depending on the immutable laws of physical phenomena; and, like the discoveries founded on such a basis, simple in its application and easily understood—a gift of science to a favoured son; one by which the ear is converted into the eye, the hidden recesses of visceral disease opened to view; a new guide to the treatment, and a new help to the early detection, prevention, and cure, of the most widely spread diseases which affect mankind.”

I have alluded to men who lived before their time, who were in advance of their age: Laennec was fortunate in living at the exact period at which he did, when Bichat had just created the science of general anatomy, and Haller and Hunter that of physiology; when Morgagni had grouped such a mass of his own observations and those of others on the results of disease as to entitle him to be called the founder of morbid anatomy; and when the first essay in physical diagnosis by Auenbrugger, long neglected, had been taken up and translated by Corvisart, who employed percussion as an aid to the diagnosis of cardiac diseases with much success. Laennec had thus, in the works of his immediate predecessors, the materials necessary for his system, which needed only the spark of his genius to burst into life and beauty.

I cannot but think it also fortunate that he did not live at a later period. He might perhaps have then anticipated some of the improvements which have followed from the modern advances in the correlated sciences; but I can imagine that, had the pathological anatomy of the period ripened into the histology of the present day—a science which, says Dr. Gairdner, “can only be sounded through the absolute devotion of a lifetime to its new methods of research”—his active and inquiring mind might have been altogether diverted from the study of the diagnosis of disease at the bedside to the researches of the dead-room and the laboratory, which, however important, must be held to be subordinate and secondary to the other. Laennec would seem to have so regarded it, when he wrote that “if the causes of severe diseases are sought for in mere microscopical alterations of structure, it is impossible to avoid running into consequences the most absurd; and, if once cultivated in this spirit, pathological anatomy, as well as that of the body in a sound state, will soon fall from the rank which it holds among the physical sciences, and become a mere tissue of hypotheses, founded in optical illusions and fanciful speculations, without any real benefit to medicine.”

The life of Laennec, like the lives of other illustrious men, is not without its lessons. Although of feeble constitution and delicate health, it was marked by mental activity and incessant work. Like his great prototype Hippocrates, he became early familiar with disease, and, while a youth, showed a decided predilection for morbid anatomy and clinical observation, the future studies of his life. At the early age of eighteen he served as assistant-surgeon in the military hospitals, and in the following year he became a pupil of Corvisart at La Charité. Here he proved his diligence in the study of clinical medicine by drawing up a minute history of nearly four hundred cases of disease, which, it is known, furnished the groundwork of all his future researches and discoveries.

On taking his degree, he wrote a thesis on the doctrine of Hippocrates, as applied to practical medicine, which, says M. Bayle, proved him to be no less skilled in the knowledge of the Greek language than deeply read in the writings of the father of physic. In the previous year he had commenced a course of lectures on pathological anatomy, which he continued for three years, when ill-health obliged him to discontinue them. From this time until 1816 he continued to contribute articles on general and morbid anatomy to the “Dictionary of Medical Sciences,” and other publications; but on his appointment as physician to the Necker Hospital they ceased, and having made the discovery of mediate auscultation, he devoted himself solely to the perfecting of the new system of diagnosis which he founded on it, and to the clinical teaching of his method to the numerous students who resorted to him.

The history of this discovery is well known, but Laennec's observations on it are too important to be passed over without notice. “From this moment,” says he, “I imagined that the circumstance might furnish means for enabling us to ascertain the character, not only of the action of the heart, but of every species of sound produced by the motion of the thoracic viscera, and, consequently, for the

exploration of the respiration, the voice, the rattle or rhonchus, and perhaps even the fluctuation of fluid extravasated in the pleura or pericardium. With this conviction, I forthwith commenced at the Hospital Necker a series of observations, which have been continued to the present time. The consequence is, that I have been enabled to discover a set of new signs of diseases of the chest, for the most part certain, simple, and prominent, and calculated, perhaps, to render the diagnosis of the diseases of the lungs, heart, and pleura as decided and circumstantial as the indications furnished to the surgeon by the introduction of the finger, or sound, in the complaints where these are used.”

I have quoted this passage at length, as showing the strictly inductive character of the process of this discovery: first the observed fact, followed immediately by the anticipation based on previous knowledge of the pathological condition of other diseases; then the repeated experimental trials, and the confirmation of the anticipation by repeated post-mortem examinations.

The narrative illustrates several important principles common to the histories of scientific discovery.

First, it was apparently, but only apparently, accidental. “Men,” says Whewell, “are fond of repeating that such discoveries are most commonly the result of accident; and we have seen reason to regret this opinion, since that preparation of thought by which the accident produces the discovery is the most important of the conditions on which the successful result depends.” Then, it conformed to the usual conditions, viz., distinct general notions, careful observation of many facts, and the mental act of bringing together these elements of truth.

Regarded as an epoch in scientific discovery, this, like other inductive epochs, had a prelude in the preceding period, which led immediately up to it, and to which I have already referred. It has also had a sequel of verification and connexion during which the discovery has acquired a more perfect certainty and a more complete development among the more advanced thinkers and improvers, has been diffused to the wider throng of the secondary cultivators, and traced into its distant consequences in its influence on the practice and teaching of medicine, and on the status of the profession.

This discovery, nevertheless, did not at first excite much interest in the profession generally. It was announced in the *Edinburgh Medical Journal* of the day in these terms:—“M. Laennec has discovered that, by interposing a tube of paper or wood between the ear of the observer and the chest of the patient, much information may be required concerning the diseases of the chest. The pulsations of the heart are thus rendered more audible, and in phthisical patients the voice seems to proceed from the chest when one end of the tube is placed over those places where there are tubercles, and, according as the sound is clear or rattling, we may judge whether the cavity is clear or contains pus.”

After such a notice, it is not surprising that the practitioners of the day did not much concern themselves about the new method of diagnosis, or that Sir John Forbes should write, three years after the appearance of his translation, that up to that time not even a single case of the use of auscultation had appeared in any British medical journal. Some of us can remember how the stethoscope and its inventor were sneered at and ridiculed by a few of the teachers of our own day. The new light was too strong for older eyes; and it is possible that, had not Laennec survived his discovery for some years and continued to demonstrate its employment and results to the younger generation, it might have left as slight an impression on the minds of the profession as had the treatise on percussion by Auenbrugger, which preceded it.

Sir James Paget tells us that, “although Hunter was in high repute as the chief anatomist and naturalist of the time, yet in his great work of comparative anatomy and physiology not one of the young men of science imitated him—in the highest sciences he had not one true disciple.” With Laennec it was different: unlike Hunter, he was “apt to teach,” and had the opportunity afforded by his connexion with the Hospital Necker of training numerous disciples from this and other countries, one of the most distinguished of whom (Dr. Williams) still survives. Others who, like our own Stokes and Corrigan, had not the advantage of his personal teaching, drank the knowledge from his published writings, and drew therefrom an inspiration and an impulse which carried them far into the field of discovery.

It only remains to remark that from Laennec's first observation till his death only ten years elapsed, two years of which were spent in the country, while suffering from disease which afterwards proved fatal. Few men have contributed an equal amount of such valuable work within the same space of time. Of its appreciation by men of kindred genius and pursuits I have already given one example in the eloquent words of Dr. Stokes; let me add another in those of Dr. Addison. "Were," says Dr. Addison, "I to affirm that Laennec contributed more towards the advancement of the medical art than any other single individual, either of ancient or of modern times, I should probably be advancing a proposition which, in the estimation of many, is neither extravagant nor unjust. His work, "*De l'Auscultation Médiate*," will ever remain a monument of genius, industry, modesty, and truth. It is a work, in perusing which every succeeding page only tends to increase our admiration of the man, to captivate our attention, and to command our confidence. We are led insensibly to the bedside of his patients; we are startled by the originality of his system; we can hardly persuade ourselves that any means so simple can accomplish so much, can overcome and reduce to order the chaotic confusion of thoracic pathology, and hesitate not in the end to acknowledge our unqualified wonder at the triumphant confirmation of all he professed to accomplish." But is he still appreciated as he deserves? Is he still the living oracle, or rather is not his name now rarely mentioned—fast becoming a mere tradition among practitioners and students? His work has been long out of print in both languages, but neither the old nor the new Sydenham Societies have thought it worthy of a re-issue. For the one, it may have been too new—not yet fossilised; and it may be supposed that the council of the new society have passed it by while translating and re-editing works of inferior merit, because it is too old. I am glad, however, to see an announcement in a recent number of the *Lancet* that, "Thanks to the late Minister of Public Instruction, who granted a subsidy for this purpose, the Faculty of Medicine have been enabled to publish a new edition of Laennec's work upon auscultation, which has long been out of print. This is intended as a national monument to the illustrious pioneer in physical diagnosis; and it is to be sold at a low price, in order to bring it within the reach of all." The old saying seems still to be true: "They manage these things better in France."

Having touched on the *prelude* and the *epoch* of Laennec's discovery, it only remains to glance at the immediate sequel, or at what he did and what he failed to do, since to follow up the paths of investigation to which his method has led would indeed be a task equally illimitable and interminable.

Time would fail me were I even to attempt an analysis of his work. I shall merely notice a few salient observations in the more important chapters, occasionally referring to the corrections and additions of succeeding writers.

Of his chapter on exploration of the chest it is impossible to speak too highly. Unlike most authors of new systems, he did not commence with destroying the work of his predecessors: while no mere improver, he yet was not a revolutionist. Not only does he repeatedly urge the value and necessity of the study of rational symptoms, but he avails himself of those physical signs which had been observed from the time of Hippocrates by physicians and surgeons, and more especially of the discovery of percussion by Auenbrugger, whose method, he says, acquires a fresh degree of value when combined with auscultation. It must be confessed, however, that in some instances he undervalues the more ancient methods, as in the case of measurement and of palpation, and he evidently was unaware of the diagnostic value of vocal fremitus as perceived by the hand. His observations on percussion are minutely accurate: take for example the distinction he draws between the sound elicited, and the tactile sense of elasticity or the contrary. The same may be said of his account of the stethoscopic signs, of the felicitous comparisons by which he describes them, and his explanation of the physical conditions indicated by them.

One serious oversight he made which had important results, namely, the non-recognition of the friction sound produced by the exudation of lymph on the serous membranes of the pleura and pericardium. Had he recognised this he would probably not have left the diagnosis of pericarditis unwritten; but he seems to have considered friction murmur to be caused by interlobular emphysema exclusively.

His chapters on the different forms of catarrh are excellent—that on dry catarrh especially so. His original description of dilatation of the bronchi deserves the eulogy of Trousseau, who pronounced it to be "complete, although probably thrown off at the first dash." He first gave a complete account of emphysema of the lungs, but erred in his explanation of the mode of genesis, as demonstrated by Dr. Gairdner, and perhaps also in regarding dry crepitous rattle as the pathognomonic sign of the interlobular form.

His chapter on pulmonary apoplexy is, as he himself states, original, and contains some valuable observations—e.g., the occasional occurrence of bellows-murmur in the heart and larger arteries; the rise of temperature, diagnostic of the supervention of intercurrent pneumonia; and the fact that in this, as in some other cases, the abstraction of blood by leeches seems sometimes to excite hæmorrhage. He does not notice the accentuation of the second sound of the pulmonary artery present in this disease and in phthisis, as well as in mitral stenosis. Dr. Balfour is the only writer who, so far as I am aware, assigns its due importance to this valuable sign in pulmonary as well as in cardiac cases. Of course, Laennec had no knowledge of the connexion between hæmoptysis and the hæmorrhagic infarction caused by thrombus in the branches of the pulmonary artery, nor does he appear to have had any knowledge of the source of hæmorrhage in aneurisms of these arteries in the later stages of phthisis, so fully described by Rasmussen, and also by the late Dr. Cotton and by Dr. Peacock.

In his chapter on pneumonia he gives what may be considered as a fairly complete anatomical description of the ordinary sthenic croupous form of the disease, apparently the form with which he was familiar. To his account of the physical signs I would take one exception, namely, the attributing to the crepitating râle the character of a pathognomonic sign of the first stage. His enumeration of symptoms needs only the addition of the altered pulse-ratio, the importance of which was, I believe, first insisted on by Dr. Walshe, and more thorough information regarding the temperature, the peculiar sensitive character of which was first noticed by Dr. Addison; while Wunderlich and others have shown that the value of the thermometer is second only to that of the stethoscope in the study of this disease.

Regarding the treatment. I question if he over-estimates the good effect of tartar emetic in the sthenic form of the disease, and I do not know a more plausible theory of its mode of action than his own, namely, by "promoting interstitial absorption." He bled freely, as was the fashion of the day—and may be, perhaps, the fashion of the future, only that we know better why we bleed; not to cure pneumonia, but to relieve congestion and avert impending suffocation, urgent dyspnoea being, as Dr. Wilson Fox well observes, the only positive indication for this remedy, with the exception of a very high amount of pyrexia in the early stages.

Laennec recognises, though briefly, some exceptional forms which succeeding writers have described more fully, such as that prevailing during an epidemic of influenza in which hepatisation did not occur, or was long delayed—a form corresponding apparently to the blue pneumonia described by Sir D. Corrigan in the *Dublin Hospital Gazette*, and by Dr. Gordon in the twenty-second volume of the *Dublin Quarterly Journal of Medical Science*. He also refers to an epidemic form which corresponds to the pythogenic pneumonia described by Drs. Grimshaw and J. W. Moore; and to an outbreak of it which occurred on board some of the ships of the Royal Navy in 1860, due to ochlesis generated by overcrowding, and becoming communicable by contagion. His opinion that abscess is a comparatively rare termination of pneumonia is generally received, and the same remark applies to gangrene, of which he says: "It can scarcely be ranged among the terminations of the pulmonary inflammation, and still less can it be considered as the consequence of its intensity. . . . It would, on the contrary, seem in most cases to approach the nature of the idiopathic gangrenes, etc."

His division into the two forms of uncircumscribed and circumscribed gangrene has been adopted by subsequent writers as being well founded.

I do not think he mentions that occasional result of pneumonia described by Rokitsansky under the name of indurated hepatisation.

Of complications, Laennec refers especially to the cerebral

and biliary. The former he ascribes to determination of blood to the head; but as he remarks that it occurred in old persons, and ran into the third stage in a few hours, one would be inclined to think the "coma" was probably due to uræmia, in which complication Dr. McDowel has shown that pneumonia possesses the tendency to run rapidly into purulent infiltration.

Of the biliary complication, I may remark that the acute yellow softening of Rokitsansky is an occasional and invariably fatal complication of pneumonia.

His chapter on the different forms of pleuritis is full of valuable observations. I can notice but a few.

Dry pleurisy he regards as usually a mere complication of some more serious disease, as pneumonia or phthisis. He remarks on the mistake of supposing that pleuritis terminates by effusion, whereas it (the effusion) may occur in the course of a few hours from the attack. He anticipates the late Dr. Green's observations on vicarious purulent expectoration in empyema. He notices the frequent confusion of chronic pleuritis with phthisis. He lays down judicious rules for paracentesis, and advocates an early operation, on the ground that compression of the lung against the spine renders the success of the operation at a later period doubtful. He observes on the sanguinolent nature of the effused fluid in cancerous pleuritis—a fact often noticed in Dublin, and fully confirmed by Dr. Bowditch, who states that, in his experience of eighty-five cases, "sanguinolent fluid, when following the first puncture, was almost certainly fatal, and a consequence of some malignant disease of the lung or pleura."

No chapter in Laennec's work displays more patient and original research than that on pulmonary phthisis, but none has been more severely criticised by two classes of pathologists, by eminent clinical physicians and histologists. For a statement of the views of the former, I may refer to the second chapter of Dr. Williams' work on Consumption, and to the writings of Drs. Addison, Graves, Andrew Clark, and Niemeyer. It is in the researches of the histologists, however, that Laennec met his Nemesis for the depreciation of microscopic investigations; one of the many instances proving how unwise are those vaticinations of future failure and of finality in science, which seem to say to the ever-advancing tide of discovery, "Thus far shalt thou come, and no farther; and here shall thy proud waves be stayed."

Virchow and Reinhardt in Germany, followed by many others in England, have initiated a controversy which, like its subject, might, to use the expression of Dr. Wilson Fox, be termed illimitable; which has led to much original microscopical research, and to many doubtful experiments on those quasi-scrfulous animals, guinea-pigs and rabbits; and to a most interesting and valuable discussion in the Pathological Society of London, in which Laennec's views, with slight modification, were advocated by Drs. Wilson Fox and Moxon—namely, that all phthisis is tuberculosis—Wilson Fox holding that caseous pneumonia is pneumonia running a particular course in the presence of tubercles, and Moxon maintaining that the "anatomical characters of phthisis, as seen by the unaided eye, are positively sufficient to separate it from all other pulmonary diseases, and to gather all phthisical cases into one natural group, practically coinciding with the tuberculous phthisis of Laennec and Louis." Dr. Bastian, on the other hand, considered those views so erroneous that he would expunge the word tubercle from the medical vocabulary; while Dr. Williams maintained the opinions published in his valuable work on Consumption, namely, that in inflammation of the adenoid tissue the general result and future history of the inflammatory product are determined by its composition and vital endowments; and that it is by a scrfulous type of inflammation of the adenoid tissue that miliary indurations are developed, tending to caseation, softening, and spreading, and the formation of cavities. To those who wish to see an able *résumé* of the opinions of the numerous British and foreign writers on this vexed question, I would recommend a perusal of Dr. Foote's lectures on Tuberculosis, published in the *Dublin Medical Journal* for May and July, 1877.(c) I would also direct attention to an argu-

(c) I cannot help expressing my conviction that the views of those who, like Dr. Williams, believe in the inflammatory origin of phthisis, have an important bearing on its treatment, while the same remark applies to the treatment of those intercurrent attacks, sometimes regarded (erroneously) as relapses, which ensue from exposure to cold or other acts of imprudence during the progress of the disease. I have seen several cases in which the

mentative essay by Dr. Finny on "Pulmonary Hæmorrhage as a cause of Consumption," in the same journal for May, 1873, in which several cases are detailed in support of the doctrine of phthisis *ab hæmoptoë*; all, however, occurring in patients of a strumous diathesis.

A review of the controversy shows the balance of opinion in favour of Laennec's views, with little modification, and that not only the eminent pathologists to whom I have referred, but others so distinguished as MM. Charcot and Rindfleisch, maintain their substantial accuracy—the former stating that, to his mind, "Nothing is better established than the existence of infiltrated or discrete tubercle, as a fundamental element in the different forms of pulmonary phthisis; on the other hand, nothing is more doubtful than the existence of caseous pneumonia independent of tuberculosis, and constituting the prime agent in the phthisical process." While the other, in his article on Tuberculosis, in "Ziemssen's Cyclopædia," asserts the similarity and close connexion of scrfulous infiltration and tubercle, and the mutual relations between scrfula, scrfulous inflammation, and tubercle, maintaining that, "like certain animals—guinea-pigs, rabbits, and monkeys—scrfulous persons only need to have some local inflammation set up in order to become tubercular. The tuberculosis depends on the resorption of the individual's own inflammatory products." Rindfleisch thus approaches to the views so strongly expressed by Graves in the second edition of his "Clinical Medicine," as well as to the opinion of Laennec—namely, that tubercle and the matter of scrfulous glands are absolutely identical (Forbes's translation, page 328).

But, after all, the wonder is not that Laennec's pathology should be questioned, but rather that he should have grasped so much of the truth—if not the whole truth—for, as Mr. Buckle rightly observes, "the philosophic pathologist is as different from a physician as a jurist from an advocate, or an agricultural chemist from a farmer. The two sets of functions may be united, and occasionally; though very rarely, they are, but there is no necessity for their being so." They were so united in Laennec, though in different degrees. He was a pathologist before his discovery; but ever after his pathology was made subservient to the great object of his life—the improvement of clinical medicine by the application of physical diagnosis. To justly estimate his merits and the influence of his work we should realise the truth, that "the progress of every science is affected more by the scheme according to which it is cultivated than by the actual ability of the cultivators themselves"; and, as the writer I have quoted justly remarks, "whoever has reflected much on the different stages through which our knowledge of biology has successively passed, must be led to the conclusion that, while fully recognising the great merit of the (microscopic?) investigators of the animal frame, our highest admiration ought to be reserved not for those who make the discoveries, but rather for those who point out how the discoveries are to be made."

The second part of Laennec's work, though marked by great ability and originality, is confessedly inferior to the former, as also to the mass of the observations of subsequent writers. And first we observe that, while his explanations of the physical signs of the lungs may be said to have received few corrections, his theory of the sounds of the heart in the healthy and diseased states has been proved to be erroneous. Starting from a sound principle, that the ear judges more correctly of the intervals of sound than the eye of the intervals of motions corresponding to these, he yet vitiated his conclusions by ascribing to the contraction of the auricles the sound produced by the sudden tension of the semilunar valves. To estimate the important conse-

life of the patient was prolonged for years by the vigorous treatment of an attack of pneumonia or pleuritis, or bronchitis, occurring in a more or less advanced stage of the disease; while, as regards the earlier stage, it has been my practice, in all cases in which the exciting cause was cold, and the symptoms and physical signs those of any form of inflammation or congestion, to commence by the employment of such measures as moderate local depletion (say by the application of from three to six leeches to the axillary region), counter-irritation, and the free administration of iodide of potassium and bicarbonate of potash, conjoined with sedatives. I could cite not a few cases in which this treatment has apparently averted the disease; but I usually followed it up by that which I uniformly adopt in the more advanced, or the infective stage of the disease—namely, large doses (usually half a drachm) of dilute hydrochloric acid, with succus conii and the chlorides of barium and calcium, which latter, from experience, I regard (*malgré* the want of faith of Laennec, *vide* pages 370 and 371), with the iodide, as remedies of powerful efficacy in affections of the lymphatic system.]

quences of this error, which could scarcely have been committed had Laennec borne in mind the hydrostatic law of the equal pressure of fluids), we have but to call to mind the phenomena of a case of aortic patency which Laennec seems not to have observed, but which, a very few years after, was so thoroughly investigated by Sir Dominic Corrigan, in a masterly memoir, which threw much light on the pathology and treatment, not only of this, but also of other diseases of the heart, showing more especially the true conditions indicating the use of digitalis in cardiac affections.

Other disciples of Laennec examined and corrected his theory by experiments on living animals, and by clinical observation—notably Drs. Hope and Williams, and I would add Dr. Billing and Mr. Bryan, whose researches have scarcely been appreciated as they deserve.

That the subject of the heart's motions and sounds continues to occupy the minds of eminent physiologists and pathologists in this and other countries, we have proofs in the most recent works on physiology, in the monographs of Walshe, Balfour, and Hayden, and in the contributions of clinical observers in the periodicals of the day.

Laennec's erroneous explanation of arterial murmurs has been amply corrected by the experimental researches of Williams and Corrigan, while the mistake he made of locating the continuous murmur heard in the neck in the carotid arteries was long since corrected by Dr. Ogier Ward, who conclusively proved that it is seated in the large veins. Another erroneous explanation is that of the genesis of a loud musical murmur audible at some distance from the patient, since proved by the clinical observations of Drs. Banks, Stokes, and Corrigan to be due to the presence of a vibrating tongue in the heart or aorta.

With regard to the application of physical diagnosis to the diseases of the heart, Laennec has been accused of an amount of confidence which is not justified by its results in his own hands. But such an accusation does not appear to be warranted by his language, for he not only rather over-estimates the difficulty "of the study of the heart's actions in health," but, while maintaining the insufficiency of the general symptoms—which he has sketched with great terseness and power, but without any attempt at differentiation—to characterise or indicate disease of the heart, and the consequent necessity of recourse to mediate auscultation, he adds, that "even it more frequently fails in this case than in any of the other diseases which it is calculated to discover." And again, that in these diseases "we shall be most liable to commit grievous errors in diagnosis, more especially if we restrict our exploration to a few minutes, and fail to take into account the general symptoms and the diseases which may complicate those of the heart."

Of the additions made to Laennec's description of diseases of the heart, the most remarkable is the case of pericarditis. We cannot realise his admission that the stethoscope scarcely furnishes us with any certain signs of this disease, now, when the contrary is so generally acknowledged. But for many years after Laennec, the general belief, as enunciated by Andral and others, was that the diagnosis of pericarditis could only be arrived at indirectly and by a process of exclusion. It was reserved for Dr. Stokes to expound so fully the physical diagnosis of this disease as to leave "what had been the most difficult the most easy of detection in medicine" (Sibson). True, the friction murmur had been noticed by Collin and Watson, but these were scattered rays converging to and concentrated in a burning focus in the exhaustive memoir of Stokes.

Perhaps no chapter in Laennec's work is more worthy of admiration than that on softening of the heart in fever. His description of the colour and consistence of the organ; of the analogous condition of other muscles; of the diminution of the heart's impulse and occasional loss of its sounds; of the slowness of its action and occasional fits of excitement; of its non-inflammatory nature, and of the indications for wine, which, he says, "is indicated in case the affection supervenes to a severe fever, and if the patient bears it well"; and of its curability in convalescence under tonic treatment, are excellent; and I may add that he evidently recognised the coexistence of softening and hypertrophy (the failing hypertrophy of Fothergill), although ignorant of the fact, since demonstrated by Rindfleisch, that this febrile softening is a true fatty degeneration. I need not remind my hearers how these observations, with those of Louis, suggested the admirable researches of Dr. Stokes,

and led to the placing the indications for the exhibition of wine in typhus upon a sound and certain foundation.

On the great subject of fatty degeneration of the heart, Laennec's claims to originality have been ignored by some writers, while others, as the author of the article in "Ziemssen's Cyclopædia," have fully recognised them. He was, in fact, familiar with both forms—fatty infiltration and fatty degeneration,—the latter of which he defines to be an actual transformation of the muscular substance into a substance possessing all the chemical and physical properties of fat, thus anticipating the idea which Dr. Quain afterwards developed and proved to be a fact by the original and elaborate experiments detailed in his memorable essay in the *Medico-Chirurgical Transactions*; researches of which Sir James Paget says: "Dr. Quain has candidly referred to many previous observers by whom similar changes were recognised, but the honour of the full proof and of the right use of it belongs to himself alone."

Perhaps no subject in medicine has since occupied a larger share of the attention of the profession than this, as is proved by the contributions of numerous English and continental writers; the recorded cases in the *Transactions* of the Pathological Societies of London and Dublin; the monographs of Walshe, Balfour, Fothergill (who gives a masterly description of the general symptoms); of Hayden, who has carefully collected and tabulated the cases reported since Dr. Quain's memoir, with many of his own; and of Stokes, who first, I believe expounded the differential diagnosis of degeneration of the right and left cavities, based upon the preponderance of respiratory or cerebral secondary affections.

Not to follow this review further, I may remark that a careful perusal of these chapters will disclose some observations and suggestions worthy of notice; such, for example, as his account of the signs of contraction of the mitral orifice (pp. 647, 648), as his observation that "the severest diseases of the heart consist in defects of proportion, and yet a slight disproportion between it and other organs, or between some of its own constituent parts, is compatible with a state of health"; that dilatation of the right ventricle without hypertrophy is of rare occurrence; that digitalis is of no benefit in hypertrophy; that simple hypertrophy without dilatation is much more rare in the right than in the left ventricle; that intermission of the pulse is often due to the alternate feeble contraction of the ventricle; that the capillary circulation is in some sort independent of the general—a fact now recognised by pathologists; and, not to multiply instances, his theory of angina pectoris, of which Dr. L. Clarke says, "Laennec's view of the approximate cause has been materially supported by recent inquiries" (*Pathological Transactions*, vi.).

What has been Laennec's influence on practice, on clinical teaching, and on the public estimate of medicine? By his introduction of differential diagnosis—the essential prerequisite of scientific therapeutics—the treatment of diseases of the chest, previously directed to a name, a group of symptoms, or often to a single symptom supposed to be pathognomonic of a certain affection, has become differentiated; and a case of pneumonia is no longer treated as one of pleuritis, nor one of diseased heart; or of emphysema as one of hydrothorax—the universal practice during the preceding era. Auscultation, also, by enabling us to recognise the tendency of diseases to recovery, or the contrary, becomes a powerful adjuvant in their treatment. Moreover, we have, in the recognition of the vital condition and innervation of the heart, a most valuable guide to the treatment of various diseases, notably with regard to the exhibition of wine in fever, and the treatment of the cerebral anæmia of fatty heart and of other cerebral affections; and, in the field of preventive medicine, auscultation co-operates by detecting the germs and vestiges of disease, as the early signs of phthisis or the organic sequelæ of acute disease.

With regard to Laennec's influence on clinical instruction we might well ask what would such instruction be if physical diagnosis were omitted? Without it the knowledge gained at the bedside would be mere cramming. "Teaching," says Dr. Moxon, "is the storing of knowledge—it may be done quickly. Training is the creation of an organ for use of knowledge—it needs much time; it is a slow process. The trainer has to convert the pupil's knowledge into motive, his desire into patience, his will into skill. Every good trainer aims to raise up in his pupil's

mind a *self-training faculty*, which shall itself continue to train, more and more, knowledge into motive. By such training knowledge becomes power." This is exactly what physical diagnosis does. Following the method of Laennec, the clinical teacher trains the pupil to the use of his senses in the observation of sensible phenomena, then to the associating these with the physical conditions from which they arise, and finally to their relations with principles of pathology and of treatment. No greater improvement has ever been effected in medical education than by the introduction of this method into hospital teaching by the late Dr. Graves, as described in his work on Clinical Medicine.

It were more easy to say what should be than what is the influence—indirect, of course—of Laennec on the public estimate of medicine. This, we know, has never been high; and physicians have been the objects of satire for centuries. A hundred years ago, Zimmerman wrote: "I sometimes hear pretended wits affecting, with a tone of raillery, that physic is still such as it was in the time of Hippocrates, and that the best informed physicians know only that which he knew." Later, we have the question gravely propounded by Sir William Hamilton: "Has the practice of medicine made a single step since Hippocrates?" and the late Dr. Symonds, in a Presidential Address on this subject—since published in his "Miscellanies"—referred to passages in two leading reviews of the day, too long for quotation, both representing medicine as uncertain, always changing, resting on arbitrary assumption, etc. One oracle asks: "But can anyone at this moment seriously declare that there is such a thing as a science of medicine?" "What there is is this: there are a few facts—a very few—distinctly known and beyond the reach of controversy, and the number of these increases but slowly, if it sensibly increases at all."

Our answer to such nonsense is to point to what Laennec has done. Is the influence of medicine in directly saving life called in question, we may refer to the physical diagnosis of cases which, without medical or surgical interference, run on inevitably to a fatal termination—*e.g.*, of empyema, or of a foreign body in the bronchus; to the advantage of the early detection and treatment of phthisis, or certain diseases of the heart, or aneurism of the aorta.

In regard of that power of prognosis which Hippocrates recommended physicians to cultivate, with a view to securing the confidence of those who consulted them, I need not remind you of what we owe to Laennec; and in the detection of latent disease, in the numerous cases in which the aid of the physician is sought, by insurance companies or governmental departments, from whom do we obtain help so largely as from Laennec, either alone or in conjunction with Bright? If, then, we challenge the public estimate for our profession as a science, it is to Laennec we owe much of the grounds of our claim; and if it be said that the art is conjectural, to a portion, at least, we say he has contributed a degree of certainty almost amounting to law.

"As soon as any department of knowledge," says Mr. Buckle, "has been generalised into laws, it contains, either in itself or its applications, three distinct branches—namely, inventions, discoveries, and method."

Laennec combined all these. His invention was as perfect as simple, tried by the test for such—"Will it work?" His discoveries have led to others, only second in importance to his own, by those who have adopted his method. He was not a generaliser like Cullen, and perhaps scarcely deserves the eulogy of Sir William Hamilton on that great man, whom he seems to praise for that "he had not made the discovery of a single phenomenon." He did not undervalue theory, which he calls the "scaffolding of science"; he reasoned—not downwards from general principles to facts, but in the contrary direction; and having seen and seized on the "enlightening fact," and pursued what Bacon calls the "*experimenta lucifera*" through a lengthened series of observations on the living and on the dead, he developed and has bequeathed to us a method "comprehensive and exact" in its induction, which, however it may hereafter "be further polished and illustrated, and accommodated for use and practice," can never be dispensed with in the present, or superseded in a future age of medicine. To him we may fitly apply Cowley's well-known lines on Bacon:—

"From these and all long errors of the way
In which our wandering predecessors went,
And, like the old Hebrews, many years did stray
In deserts but of small extent;

Bacon, like Moses, led us forth at last;
The barren wilderness he past
Did on the very border stand
Of the blest promised land,
And from the mountain top of his exalted wit
Saw it himself, and showed us it."

Allow me to trespass on your patience for a moment longer, while I express my personal regret for one whose recent death, I may truly say, is deplored by the entire profession; and whose loss to this Association may be judged of by this, that his last public act, so far as I am aware, was in reference to the arrangements for the present meeting.

On reading the short biography, accompanying the announcement of his death, in the *British Medical Journal*, I was struck by the resemblance of his career to that which I have feebly attempted to sketch.

Like Laennec, Dr. Murchison was a diligent and highly distinguished student; he, also, early devoted himself to the cultivation of pathology and clinical medicine, and became a great clinical teacher; like Laennec, he compressed the labours of a long life into a comparatively short period; and, like him, his name will ever be associated with a great work—a work which must live, inasmuch as it is not only the most comprehensive and exhaustive which has ever appeared on the subject, but also marks the epoch of that sound and scientific classification of fevers which the late Dr. Parkes, in his admirable Address in 1873, pronounced to be probably "our greatest advance in practical medicine." That advance, mainly due to the researches of Stewart and Jenner, has been secured, and rendered permanent, and illustrated, by the great work of Charles Murchison.

ORIGINAL COMMUNICATIONS.

ON THE TEMPERATURE IN RELAPSE OF TYPHOID FEVER.

By J. PEARSON IRVINE, B.Sc., M.D., F.R.C.P. Lond.,
Assistant-Physician to Charing-cross Hospital, etc.

(Continued from page 4.)

I QUOTE some cases in this paper which show the obscurity of mild relapse in typhoid, the effects of some complications, and the difficulty of determining whether we are dealing with relapse or primary fever. In Case 27 a mild relapse occurred, and comparison of its chart with that of the severe primary attack is of much interest. The question of the differences between relapse and recrudescence also crops up in these cases. Other points of interest will be found in the narratives.

Case 26.—A married woman, aged twenty-three, was admitted into Charing-cross Hospital on May 13, 1878, under the care of Dr. Green. She was then suffering from right pleurisy with effusion, and was about three months gone in the family-way. Subsequently she had distinct signs and symptoms of typhoid fever, and during this attack she aborted. Many questions, therefore, arose: whether the patient had suffered from typhoid before admission, and pleurisy was a sequela of the same; whether she had contracted typhoid in the hospital; and, in either case, how far pleurisy and the occurrence of abortion modified a typhoid temperature. For five weeks before admission the patient had not been well, and she ascribed her original illness to a cold caught in a washhouse. Her chief symptoms at first were languor and sleepiness, some cough and expectoration. Then suddenly, a week before admission, she was seized with stabbing pains in the right side, and her account of what occurred during this week plainly pointed to pleurisy or to pleuro-pneumonia. She was never constantly confined to bed before admission, but *struggled* to do her household work. The patient's previous history is somewhat important. She had been married five years, and miscarried five months after marriage, but was the mother of two living children. Cough was no recent symptom with her; she had suffered frequently from it, and it returned with her present pregnancy. On May 15 (two days after admission) a note of her condition was recorded. There were at this time distinct signs of pleurisy with effusion on the right side, and *paracentesis thoracis* was done with great benefit to the patient. Several ounces of serous fluid were drawn off, and many bad symptoms

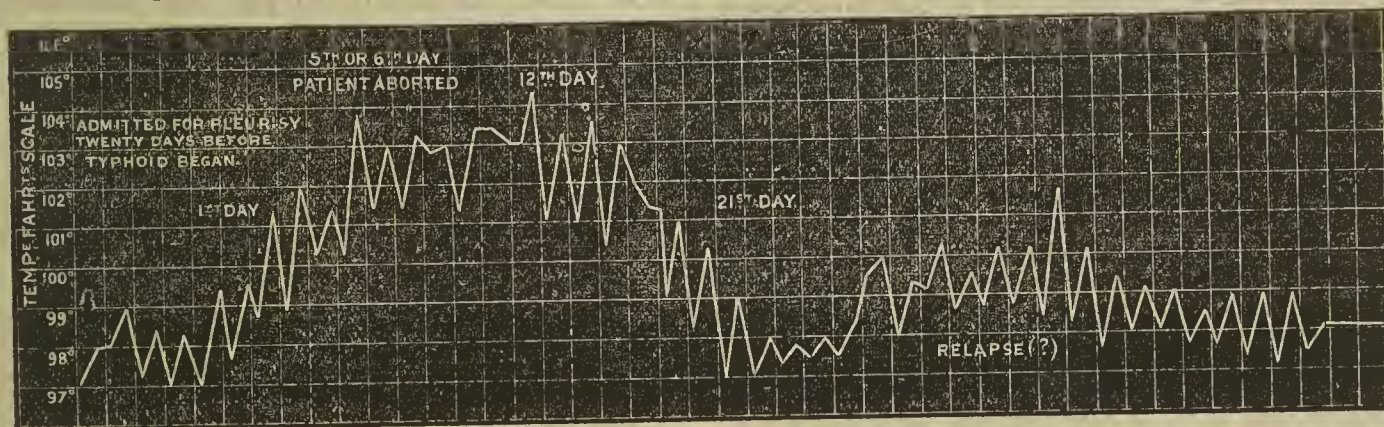
shortly disappeared, the patient going on well to June 1, when, about twenty days after admission, her case assumed a new aspect. The temperature began to rise, symptoms at variance with convalescence from pleurisy appeared, and in a few days it was clear that the patient was suffering from typhoid fever. On June 7 she aborted. It is unnecessary to follow her general symptoms henceforward, but a study of the temperature chart is of great value, and to it I ask attention.

The patient was admitted on May 13, and was suffering from pleurisy with effusion. On May 15 *paracentesis thoracis* was done, and the temperature, though irregular, only once reached 99° Fahr. until June 1. Then there began a typical typhoid rise, which needs but few remarks. On the morning of June 2 (twenty-second day of admission) the temperature was 97° Fahr. Thence it rose with daily remissions to 103·8° Fahr. on the sixth day (June 7). There was afterwards no decided fall for many days, though of course daily remissions occurred. On the twelfth day of an undoubted typhoid attack the temperature reached 104·4° Fahr. On the thirteenth morning it was down to 101° Fahr., but it was not until the sixteenth day that a decided downward tendency was declared. From this date it sank satisfactorily, and on the twenty-first morning of the fever the temperature was subnormal (97·4° Fahr.). Typhoid stools had been passed about thrice daily. In attempts to bring down the temperature, quinine, ice-water sponging, and stimulants were employed freely. Quinine was continued, and for three days the temperature was normal or subnormal. On the twenty-fourth day from beginning of fever the temperature again rose, and it fluctuated irregularly for about eighteen days, the heights reached being insignificant (the highest 101·8° Fahr.). During this time the bowels were constipated, and simple enemata were occasionally used. The patient, though often very ill during the second fever, made a rapid convalescence, and was discharged

on August 2, 1878, she having been eighty-two days in hospital.

As already said, many questions are raised, and many of an argumentative kind and outside the purposes of these papers. I shall not discuss the cause of the primary pleurisy, nor the question whether the initial symptoms of disease which so much resemble those of ambulatory typhoid were really due to typhoid. In hospital for the first twenty days the patient had no symptoms of typhoid, but distinct signs of pleurisy with effusion. Then an undoubted typhoid began. This attack—whether primary or relapse—ran a course of twenty-one days, and the temperatures during its progress were not like those of ordinary relapse; but did the complication modify the fever? I confess that I am unable to answer many of these questions, and all the more because if this patient suffered in hospital from a primary attack of typhoid, she must have contracted it in hospital, either by the food or water she took, or by contact, not with typhoid patients, but with those nursing or watching typhoid patients.(a) This is not the place to argue these points; they are mentioned as proving what a multitude of issues a single case may raise.

Admitting that the first fever met with in hospital ended on the twenty-first day, whether relapse or primary typhoid, we come to the second accession of fever. To what was this due? To pleurisy, to relapse, to recrudescence, or some unknown accident? The woman aborted during the first attack in hospital: did some pelvic mischief remain, and was this the cause of the new and irregular pyrexia? It is beyond all doubt that all these questions often force themselves on the practitioner's mind, and demand careful consideration, for treatment would be guided to the salvation of the patient by an exact diagnosis. In this case the new rise of temperature was ascribed to a mild relapse, or to what is termed recrudescence. It is not necessary to say how other causes of fever were excluded.



CASE 26: MILD RELAPSE OF TYPHOID FOLLOWING SEVERE PRIMARY DISEASE (a married woman, aged twenty-three years).—Patient admitted for pleurisy, with effusion, for which *paracentesis* was performed. Twenty days after admission an attack of typhoid set in, and five days afterwards patient aborted. In the typhoid attack the temperature did not abate until the twelfth day. From this day it fell, and on the twenty-first day reached the normal, and continued normal for two or three days. A relapse then set in; its temperatures were comparatively low as well as irregular, and the new fever lasted about eighteen days. (For many points of interest *vide text*.)

Case 27.—A female, aged forty-eight. I quote this case because it illustrates the obscurity in which relapse is frequently involved, and how widely different relapse and primary disease may be. The patient passed through an attack of primary typhoid of great and continuous severity, and this attack ended about the thirtieth day of disease. She was under the care of Dr. Green in Charing-cross Hospital, and treatment, modified from day to day, especially in regard to the employment of stimulants, was of the greatest value. I shall not dwell at any length on the temperature of the primary disease, though its chart is most valuable for comparison; but the temperature succeeding the primary fever is of importance for the purposes of these papers. The patient was admitted on September 2, 1878,—the thirteenth day of disease. Her fever was then nearly 105° Fahr., and this high level was approached during the next ten days. Then the temperature descended satisfactorily, and on the thirtieth day of disease it became subnormal. But evidences of mischief were not wanting, and a fluctuating temperature, though low (*vide chart*), was looked upon with suspicion. Yet on the thirtieth day of the disease the chief evil seemed at an end. A relapse, however, occurred, and was mild in all respects. For two days after the termination of the primary attack the temperature was normal or subnormal, and the patient's condition for the first time was satisfactory. Relapse

set in irregularly, with severe diarrhoea, but as soon as the fever was fairly developed its course was tolerably regular. The temperature reached its greatest height (102·2° Fahr.) on the fifth day of the relapse. From this date it fell to the eighth day; then it rose temporarily as if with a new accession of fever (but not above 100·6° Fahr.); and afterwards there was a gradual remission to the twenty-first day of relapse, when the patient was convalescent.

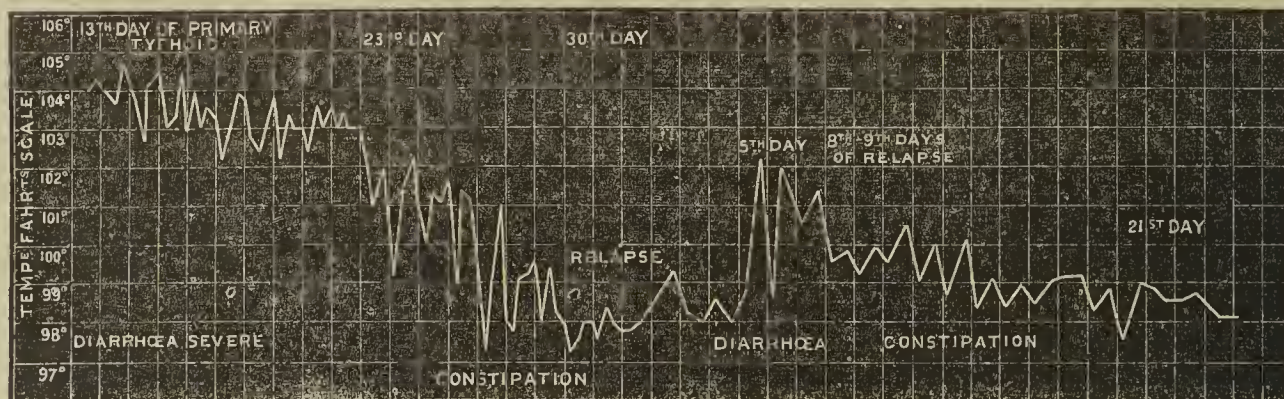
The relapse in this case was irregular in many respects; and irregularity makes it all the more valuable for comparison in a series. The patient had scarcely any bad symptoms during relapse, and the irregularity only continued through the early days of the fever. But that there were dangers is certain from what we know of other cases. It is of interest to compare this "mild" relapse with the severe primary attack. The woman was admitted with all the marked symptoms of typhoid fever, abdominal pains and tenderness in the right iliac region, typical spots and diarrhoea, and the general appearances of severe typhoid. A week after admission (twentieth day of the primary attack) the patient had involuntary evacuations, subsultus tendinum, and dangerous hypostatic pneumonia. The course of the fever was in correspondence with the general symptoms. In the mild

(a) Remember possibility of communication by typhoid-convalescents.

relapse the same fact was met with, and it is well worth while to compare the primary attack and the relapse. Such comparison (or rather contrast) shows that the mildest relapse may follow the severest primary attack; and the practical teaching is this: that the occurrence of relapse under any circumstances must warn us to be cautious in dietetic and

other treatment. In this instance it is impossible not to believe that the condition of the intestines was dangerous, though all dangerous manifestations had ceased except those given by the thermometer. Mild relapses are as instructive as the severe, as I have already said.

Case 28.—A female, aged nineteen, was admitted into



CASE 27: MILD RELAPSE OF TYPHOID FOLLOWING SEVERE PRIMARY DISEASE (a female, aged forty-eight).—Admitted on the thirteenth day of primary typhoid. Temperature for ten days afterwards remained between 104° and 105° Fahr. Diarrhoea severe. The fever then abated rapidly, and about the thirtieth day the attack was ended. Relapse set in very irregularly after a two-days' interval of apyrexia. Height of fever reached on fifth day (102.2° Fahr.), and after-course of fever was in accordance with regular mild cases. The relapse lasted about twenty-one days. There was a decided fall of temperature on the eighth and ninth days, then a slight accession of fever. Diarrhoea was considerable at first, then constipation. Compare relapse-temperature with that of primary disease. (*Vide text.*)

Charing-cross Hospital on July 22, 1878, that she might be operated upon for cleft palate. Three days afterwards this operation was done, and the temperature, taken before the operation, was normal. After the surgical interference there was of course a degree of fever, but this was insignificant; and the patient did well until twelve days after admission, when—what proved a typhoid—temperature began.

The temperature on this twelfth day was only 98.3° Fahr. Then it ran up with scarcely appreciable remissions to 103.5° Fahr. on the fifth day. An almost uninterrupted rise through five days was strikingly suggestive of typhoid relapse, and though constipation was throughout the attack a leading symptom, other symptoms plainly pointed to typhoid fever as the cause of the temperature. On the sixth and seventh days the fever did not abate, but on the ninth day there was a most decided remission (100° Fahr.). The temperature rose again, but without stability; deep daily curves were met with, but the downward tendency was never interrupted, and on the twenty-first day the temperature became normal, and continued normal or subnormal until the patient's discharge.

I have not the slightest hesitation in saying that this typhoid attack was an example of relapse, and that the patient had passed through a primary attack of typhoid shortly before admission into hospital. The cleft palate and the operation for cleft palate influenced the typhoid temperature in no way whatever. I believe the case was one of pure and simple relapse, and the thermometer was the leading power in pointing out the same. Let the reader be good enough to compare the chart of this case with some of those already published; such comparison must convince

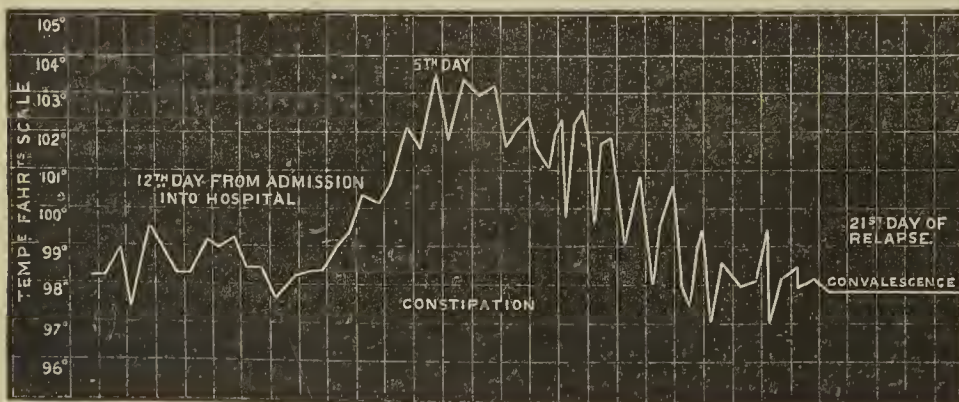
him of the truth of the views I advance. It may very properly be urged that the patient contracted typhoid fever in hospital, and that the attack which is described as relapse was really primary disease. But the facts are against this view: on it the patient must have taken contagion almost at the moment of admission. Our practical knowledge is fortunately evidence against frequent "catching" of typhoid in our general hospitals, though of course cases do occur. This is not the place to discuss the contagion question, and in support of the view of relapse rather than primary disease I rely on the characteristic course which the fever followed more than on anything else.

The cases reported in this contribution are open to many doubts, but are suggestive of inquiry. They have raised more fully the question of the nature of mild relapse, and of the comparison of mild relapse with recrudescence; they have contrasted relapse with primary disease; they have shown that complications vary the course and temperature of relapse, and that this disease is variable apart from appreciable complications; and, finally, they have proved that it is often difficult to distinguish a relapse from a primary attack. All these are points of practical importance, and suggest inquiry in all cases of typhoid the practitioner may meet with.

(*To be continued.*)

SULPHIDE OF CADMIUM IN INFLAMMATION OF THE EXTERNAL MEATUS AUDITORIUS.—Dr. Sexton notes that in furuncular inflammation of the meatus the sulphide may be used to advantage when suppuration is threatened, or even after it has occurred. Under its use he has frequently observed furuncles abort and dry up without discharge of pus. In some instances he relies entirely on this remedy in treating inflammation of the ear. The dose which he has found most available is one-tenth of a grain, given every two or three hours in urgent cases, and less frequently when they tend towards chronicity. In children the dose should be less; and if an adult dose be diffused in water, it can be easily divided. The medicine is more agreeable when triturated with sugar and quite dry on the tongue.—*New York Medical Record*, June 7.

CONTUSED WOUNDS OF THE SCALP.—In cases of superficial contused wounds of the hairy scalp, Prof. Gosselin recommends a dressing of pure alcohol. Under its influence cicatrization takes place rapidly, suppuration is less abundant, and there is less tendency to erysipelas and phlegmonous inflammation.—*Union Méd.*, July 26.



CASE 28: RELAPSE OF TYPHOID FEVER IN A PATIENT ADMITTED FOR CLEFT PALATE (a female, aged nineteen).—Was operated upon for cleft palate three days after admission (temperature 98.3° Fahr.). Temperature rose for a few days irregularly. On the twelfth day of admission a typhoid temperature began, which reached its height on the fifth day (103.6° Fahr.). The rise was almost uninterrupted. On the ninth day of attack the fever abated to 99.8° Fahr.; then rose, but afterwards descended with decreasing evening exacerbations to normal on the twenty-first day. Convalescence then commenced, and patient was discharged after being in hospital fifty-seven days. (*Vide text.*)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

CASES IN MR. LAWSON'S WARDS.

Old-standing Disease of the Knee—Amputation of the Thigh.

EMMA G., aged fifty-three years, was admitted May 12. Her father was killed at the age of forty-four years, in some accident. Her mother died at the age of fifty-seven years, of general dropsy; she was also said to have had cancer of the stomach. Of two sisters, one was alive and well, the other died of consumption. Patient stated that she herself had always been "somewhat nervous," and that she had suffered from a bad knee since she was thirteen years old. When eighteen years old she was laid up for a week with swelling in the joint, but after the application of blisters she was able to go about her duties as housemaid. She married when she was about twenty-five years old, and afterwards was not troubled much with pain except during her confinements, until seven years ago, when she became an out-patient at the Great Northern Hospital. The knee was then strapped with Scott's dressing. Subsequently she had iodine applied over the joint, and about nine months ago she became an in-patient at St. Bartholomew's for two months, where the limb was placed on a splint. She seemed to have derived no benefit from any treatment, and the limb was getting more useless and painful when she applied to the Middlesex Hospital.

On admission, the left knee-joint is fixed in a flexed position at an angle of about 110° . It is capable of no active, and of extremely limited passive movements, very slight flexion and lateral movements which cause pain being all that it is possible to obtain. The joint is very much enlarged in all its dimensions. The bony outlines are obliterated, the popliteal space is filled up, and the swelling seems broader below the patella than above it. The tissues are doughy, being rather firmer over the condyles of the femur. The patella is not ankylosed; the skin is tense, shining, and white. The limb below the joint is emaciated and becomes oedematous when it is allowed to hang. The ends of the bones seem enlarged. The limb being quite useless, and all treatment having been of no service, Mr. Lawson removed the limb, amputating the thigh about four inches above the knee by a long anterior square muscular flap and short posterior flap. All the vessels were twisted and the wound was dressed antiseptically. On cutting the posterior flap an extra-articular abscess was opened. On opening the joint it was found to be disorganised, and it contained a considerable quantity of concrete yellowish pus, or caseous material in flakes, over the patella and other bones, and also partially lining the synovial membranes; the latter was thickened and vascular, but did not present any of the characteristics of the true pulpy degeneration. It was especially thickened around the remains of the crucial ligament, which had almost disappeared. The other ligaments of the joint were also in great part not distinguishable. The bony surfaces were partially devoid of cartilage, what remained being in isolated fragments and easily stripped off; there were irregular pits in the subjacent bone, especially in the head of the tibia, which had at parts an eburnated appearance. Sections horizontally and vertically through the bones showed the central cancellous tissue to be much softened in places (? from disease), in other places firm. There was a considerable caseous deposit—about the size of a small marble—on the head of the tibia near the surface, and a similar one on the articular surface of the femur.

In the subsequent progress of this case there were no bad symptoms, and the wound was quite healed by July 9. Patient's general health kept good, and she was then able to move about the ward with the assistance of crutches.

Fracture of the Vault of the Skull—Recovery.

Annie H., aged fifteen years, admitted June 18. Half an hour previous to admission she had fallen down the steps of an area on to the flags at the bottom, alighting on her face. She was brought to the hospital insensible, with profuse bleeding from the left ear. The pupils were dilated, but responded to stimuli; pulse 90. Soon after admission she

vomited several times, the rejected matters containing some blood. On the following day a soft fluctuating swelling occupying the whole of the left side of the head and extending beyond the middle line behind was made out. She had recovered consciousness, but had again been sick. The temperature was then normal; pulse 96.

June 20.—Patient passed a restless night, but seems better this morning. She is only conscious at intervals, and then answers questions correctly until about the end of her answer, when she uses inappropriate words.

23rd.—She is very drowsy, but is now quite conscious when awake; says she remembers feeling faint at the top of the area stairs, and remembers nothing more. She complains now of headache, chiefly referred to the left side. She eats well; and pulse and temperature are about normal.

26th.—She complains of a noise in the left ear like the humming of a bee. A hard ridge can be felt round the margin of the tumour, giving the impression that there is a depression of bone. The swelling is softer.

July 1.—The swelling is much reduced. A distinct depression can be felt about an inch and a half above the ear, apparently at the temporo-parietal suture and near the anterior inferior angle of the parietal bone. After this patient steadily got well and no further head symptoms appeared. Although the diagnosis was not in all points perfectly clear, the case seemed to be one of fracture of the vault of the cranium with much extravasation under the scalp. The treatment consisted in applying cold lotion to the scalp and shaving the head, and ordinary sedative measures.

Cancer of the Rectum—Colotomy.

Olive M., aged twenty-seven years, single, was admitted temporarily for examination on June 7. She had no family history of phthisis or cancer, and there seemed to be no hereditary taint of any kind traceable. She stated that she first began to notice symptoms of her present illness about the beginning of last year, when she began to suffer at times from constipation, which was relieved by medicine. This occurred frequently, and at the end of last year constipation became aggravated so that she sought medical advice, and was told to use injections. At this time there was an escape of mucus from the rectum. In March she began to lose blood in small quantities with the fæces. In February her menses ceased, and she has since suffered from leucorrhœa. In April she found herself unable to do any work. Since then her bowels have never acted properly without medicine; occasionally she has had slight diarrhœa. She has lost flesh since Christmas. About a fortnight before admission she noticed that something came by the vagina when the bowels were opened.

On admission the rectum was found to be infiltrated by epithelial cancer; the anterior wall was destroyed as high as the finger could reach, the vaginal septum being implicated, and a fistulous opening existing between the two canals. On July 4, constipation being excessive, left lumbar colotomy was performed. The colon, which was full of hard scybalous masses, was fastened to the skin in the usual manner.

Subsequently patient recovered well from the operation, and was much relieved. On July 17 she was in the hospital; the opening was patent, and fæces passed freely from it.

Two Cases of Cold Abscess of the Back.

Case 1.—Wm. L., aged fourteen, a page, was admitted on May 5. Patient had a somewhat suspicious history, family and personal, of struma. He was at one time a patient at Leytonstone Infirmary for eighteen months with an abscess on the left side of the back. About five weeks before admission he felt pain in the upper part of the back, and a swelling appeared there. When admitted there was a large soft fluctuating swelling in the centre of the back, about the level of the inferior angles of the scapulæ, concealing the spine of the mid-dorsal vertebræ. There was little redness or tenderness over the tumour, and from the mobility of the spine the vertebræ did not seem to be affected.

May 14.—The swelling has increased in size, and there is pain on slight pressure over the vertebræ from about the seventh cervical to the sixth dorsal. To-day, patient being under the influence of ether, the abscess was opened, and about three ounces of pus and flaky matter were let out. The wound was syringed out with chloride of zinc solution,

and stuffed with lint steeped in carbolic oil. No connexion with bone could be made out, and there was no abnormal temperature. The subsequent progress of the case has been that of ordinary cold abscess. There has been some burrowing, and sinuses formed, which had to be opened up. The temperature did not rise above 100°, and now (July 12) the wound seems to be healing and patient is in improving condition.

Case 2.—Maria L., aged forty-two years, a widow, was admitted on June 12. Her father and mother had both lived to old age, but of eleven brothers and sisters five had died of consumption. She had herself had five children, two of whom, and her husband, had died of consumption, and one of her younger children suffered from abscess in the testicles. Since her husband's death (five years before) patient had worked very hard as a tailoress. She stated that about two years ago she first suffered from severe pain in the back, and was treated for liver affection and for lumbago. About a month before admission she noticed a swelling in the lower part of the back on the right side, and she was under treatment for this, and had it painted with iodine. About a week afterwards she noticed a second swelling about two finger-breadths higher up, and these increasing in size, she came to the hospital.

On admission there is a large swelling on the right side of back, extending vertically from about the seventh to the tenth rib, and transversely from close to the spinous processes to the angles of the ribs. The skin is red over the swelling, and peeling at parts. The swelling is hard below, but soft and flabby above, and is not painful on pressure.

June 18.—Patient being under the influence of ether, two openings were made in the tumour—one at the harder, and one at the softer part. A considerable quantity of matter escaped, partly fluid, partly caseous (from the harder part).

23rd.—Temperature 102°; pulse 108. Patient has been restless, but complains of no pain. The parts are being poulticed.

26th.—Discharge considerable. Morning, temperature 99·8° Fahr.; evening, 100° Fahr. Her appetite is bad, and bowels are confined.

July 12.—Patient has gone on fairly well, but the sinuses are not yet closed. The wounds, however, look healthy.

These two cases possessed some interest from the position of the abscesses, and from the difficulty which had evidently been experienced in diagnosing them at their earlier stages. They presented the ordinary characteristics of cold abscess such as is usually found about the hip or in the axilla, and were quite unconnected with bone affection.

ACADÉMIE DES SCIENCES.—The veteran physiologist, Prof. Schwann, of Liège, has been elected a Corresponding Member of the Académie des Sciences in the vacancy caused by the death of Baron Rokitanski.

LYMPHADENOMA OF THE TESTIS.—Profs. Monod and Terrillon terminate a paper in the *Archives Générales* for July with the following conclusions:—1. Lymphadenoma or tumour constituted by a tissue of new formation comparable to that of lymphatic glands may be developed in the testis. 2. It constitutes a variety of sarcocele which is quite distinct in an anatomical point of view, the diagnosis of which, in the living, is not impossible. 3. It seems to affect the gland itself by preference, sparing the epididymis. 4. From the commencement the gland is attacked throughout its whole extent. The degeneration seems to commence in the intratubular cellular tissue, and invades secondarily the walls of the seminiferous tubes, which disappear themselves in proportion as the neoplastic tissue extends. 5. The lymphadenoma may occupy both testes simultaneously—a fact that appears special to this variety of neoplasm of the testis. 6. Generalisation takes place early and rapidly. Of frequent occurrence in the viscera and the bones, it may also involve cutaneous and subcutaneous tissue situated at a great distance from the primary seat of the disease. This and the preceding characteristic may prove of great utility in the diagnosis of the disease. 7. This infection of the economy may, during a relatively long period, not give rise to any appreciable cachexia. 8. This lymphadenoma does not appear to be accompanied by leucæmia. 9. Prognosis is fatal, and surgical intervention up to the present time has always proved useless.

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Medical Times and Gazette.

SATURDAY, AUGUST 9, 1879.

THE PRESIDENT'S ADDRESS TO THE BRITISH MEDICAL ASSOCIATION.

THE position of President of the British Medical Association is a distinguished one, but it is far from a sinecure. It involves the expenditure of much time and money, and, above all, he has to deliver one or more addresses. Here the difficulty is, what to say, and how to say it. On the one hand, should he be a distinguished physician, he runs the risk of encroaching on the territories of the gentleman who gives the Address in Medicine. Should he be an eminent surgeon, he runs a similar risk; and if, as has happened before now, he ventures to tread upon foreign soil, as regards his own special studies, he runs the risk of getting into a wasps' nest. Witness the late Sir William Fergusson, when he advocated the cause of dirty water, provided there was plenty of it. The difficulty has of recent years been to a certain extent overcome by the various Presidents dilating on the merits or demerits of the sanitary, social, and other amenities of the place which has been selected for the meeting of the Association, and the outgoing President, Dr. Falconer, had in this respect a subject which was of interest to all, in Bath and its Mineral Waters. This year the President had no such resource; in fact, the only thing which could have excited a home-raised Englishman to enthusiasm would have been memories of the well-known song, the "Bells of Shandon." At all events, the Address had one great merit—it was short; and there can be few things more tedious than a tedious address on generalities which can appeal to no one personally.

After a few introductory remarks, the President, as will be seen by his Address published elsewhere in our columns, made some remarks on the characteristics of the city where the Association has met, but on this subject there is only one point which seems to us noteworthy. That is, that the site of the present Queen's College, where the Association meets, is very nearly that of an old scholastic monastery,

Gill Abbey—one of those institutions which were in the early days of Irish history the only centres of civilisation, where the youth of the country, and even of England, used to flock for the purpose of slaking the sacred thirst for knowledge—which could at that time only be done by oral teaching.

But, speedily leaving such subjects, the President directed himself to something more immediately concerning his hearers, and at the very outset gave them a lesson which we fear is only too much required nowadays. It is too much the custom at the present time to preach medicine as an exact science—that we know everything, and everything as nearly as possible perfectly. But we have usually remarked that those who are boldest in making such round assertions are generally those in whom, had we to be the subjects of their treatment, we should have the least confidence. If Newton's story of the pebbles on the seashore was true of physical science in his day, it is still more apposite as regards biology and medicine in ours. But if, as is the case, Newton's favourite studies have been so greatly amplified and rendered so much more exact than they were in his time, what may we not hope for as regards our profession in the future?

To take a single example. Human anatomy has been worked out almost as perfectly as anything of the kind can be, and we are rapidly approaching a similar consummation as regards minute anatomy. Here, while the end may be far distant, the progress is extraordinary.

Dr. O'Connor seems, however, to favour the view that whilst fact is all in all, theory is as nothing. In many respects we agree with him; but real facts are so hard to come by—they *will* be distorted by men's minds. Hypothesis and theory must be employed to bind them together. When, therefore, Dr. O'Connor says, "It is of no consequence to the student of optics whether the undulatory theory of light be true or false, or to the astronomer whether the Copernican system is capable of mathematical demonstration," we are tempted to retort, in the Latin of which the esteemed President seems so fond, *Ne sutor ultra crepidam*—let physicists and astronomers speak for themselves; we doubt much if they would back the saying of Dr. O'Connor.

Surely there must lurk a vein of hidden satire in the President when he alludes to the "modest" manner in which Dr. Rutherford speaks of his own labours. We have ever been ready to acknowledge the value of these; but, when the President goes out of his way to quote Dr. Rutherford's statement of his own deserts consequent on "fourteen hundred hours of hard labour," we are strangely reminded of a certain gentleman now well known to fame as Tracy Turnerelli, whose endeavours have not, however, attained to such recognition as has been vouchsafed to the "fourteen hundred hours" of Professor Rutherford.

Looking broadly at the address, there are two features in it which demand special attention. The one is the reverential attitude in which Dr. O'Connor approaches the study of suffering. We do not remember an address of the kind where this idea was more forcibly conveyed. And we should be far wide of our aim should we seek to discourage this. But there is another point with regard to which we are not quite so much in accord with Dr. O'Connor. It runs like a streak of ore all through his address, and the subject is temperance, or rather, if we can make it out, "intemperate temperance." Who nowadays thinks of advising stimulants right and left without consideration? We might just as well ask who would recommend indiscriminate bleeding. We might say that with Todd and Hughes Bennett bleeding went out and alcohol came in. We are now at the rebound. We are in the cold water stage. It is so hard to keep to the middle line, the *via media*. As far as one can know, we should think that no one wishes to resort to ultra-depletion or to

ultra-stimulation, but there are always men who will out-Herod Herod, and in this way extremes are soon reached. Those who take a pleasure in ascertaining facts for themselves might do well to take a turn round our hospitals. They would soon see that general stimulation is very far from being the rule; but we hold it true that whoever clogs his hands by refusing to make use of alcohol in disease makes his patient a martyr.

Nothing more correct than the tone of this address could well be imagined. Above all, it is scholarly; and such a thing as scholarship is nowadays so much at a discount among some members of our profession—mostly notable for want of it—that we may safely congratulate the Association on having another lesson in this respect from the site of the "Gill Abbey."

THE ADDRESS IN MEDICINE AT CORK: THE WORK AND INFLUENCE OF LAENNEC.

DR. HUDSON chose, as the subject of the Address in Medicine before the Cork meeting of the British Medical Association, a theme of the greatest interest to all students of Clinical Medicine. For the labours of Laennec and their influence on practical medicine occupy, in regard to the clinical work of the physician of to-day, a position somewhat similar to that occupied by the discoveries of Harvey in reference to modern physiology, or by those of Hunter in connexion with modern scientific surgery. This comparison, we think, will also suggest to our readers the character of Dr. Hudson's Address in Medicine; for its subject was analogous to that of an annual Harveian or Hunterian Oration instead of a more or less general survey, from the high standpoint of matured experience, of the recent advances and present tendencies of practical medicine, such as we have most frequently received from the readers of these annual addresses. The oration, therefore, in one sense lost something of the charm of individuality, although on the other hand it brought into deserved prominence the labours and influence of a man whose great services to medicine and to mankind we of the present generation are perhaps too prone to forget.

There survive still amongst us an honoured few whose professional memories can reach back to a time when the influence of Laennec was only beginning to assert itself by the bedside, where heretofore the theoretical diagnostic methods of the school of Cullen had held an almost undisputed sway. Is there any man still alive who used his stethoscope as a nosegay-holder? We of the present day can hardly realise the extraordinary revolution in the work of clinical investigation which must have attended the gradual extension of the methods of physical diagnosis inaugurated by Auenbrugger and Laennec. The careful elaboration of a whole system of new signs for a very large number of diseases, the study of the mutual relations of these signs, the interpretation of their exact individual significance as evidences of living pathological conditions, the diligent and close comparison of the post-mortem appearances with the signs observed during life, the trustworthy revelations by-and-by obtained from the signs as to the progress and prognosis of disease, and as to the indications for treatment, are only a few of the many considerations which must, each and all, have added an extraordinary impulse and interest to the work of the physician. The memory and work and influence of the great apostle of this new era in the history of practical medicine were surely well worth the attention they received on Wednesday last from the able Orator in Medicine and from his audience.

As in the case of Newton, Harvey, and of many other epoch-making discoverers and pioneers in physical science, Laennec owed much of his success to what had been done

by his immediate predecessors—not least to his teacher, Corvisart, whose "*Hæret lethalis arundo*" is, we fear, nearly as true as ever. Their labours had cleared the ground and laid the foundation on which Laennec's solid and stately superstructure was raised, whose general proportions have been preserved almost intact, although many additions and repairs, and even a few slight demolitions, may have been necessary to accommodate the erection to the development of that new stock of knowledge which has continued to grow out of his own methods of investigation. In the words of Dr. Hudson, which can hardly be abridged, "Laennec was fortunate in living at the exact period at which he did, when Bichat had just created the science of general anatomy, and Haller and Hunter that of physiology; when Morgagni had grouped such a mass of his own observations and those of others on the results of disease as to entitle him to be called the founder of morbid anatomy; and when the first essay in physical diagnosis by Auenbrugger, long neglected, had been taken up and translated by Corvisart, who employed percussion as an aid to the diagnosis of cardiac diseases with much success. Laennec had thus, in the works of his immediate predecessors, the materials necessary for his system, which needed only the spark of his genius to burst into life and beauty."

Of these mighty men of wisdom, Morgagni was the one whose logical mind and inductive methods of inquiry in the field of pathology had done most in the way of immediate preparation for the great advances in clinical medicine made by his distinguished successors. The careful and minute researches of Morgagni had rendered available a vast array of faithful records of the symptoms and morbid appearances of disease; which, however valuable in themselves, were too much of the nature of an abstract and dead pathology to be of great assistance to the physician in the investigation, comprehension, and treatment of living disease. Medical science was waiting impatiently for a teacher whose mission would be the utilisation for clinical purposes of the, as yet, mostly dry bones of pathology, and for a method of diagnosis which "by revealing the seat, nature, and progress of disease at the bedside, anticipated the disclosures of the post-mortem theatre, and endued the dry and unexplained facts of both symptoms and morbid appearances with meaning and with power" (Stokes).

It is hardly necessary for us to dwell in detail on the history of the introduction of auscultation and the other subsidiary means of physical diagnosis. Our readers will find Laennec's own observations on the subject quoted in Dr. Hudson's Address. Like many other discoveries in our own and other departments of knowledge and practice, the method was at first so very coldly received, that it is very likely, as Dr. Hudson remarks, that if Laennec himself had not survived his discovery for a few years, and continued to demonstrate his method and its significance to the younger generation, it might well have produced as light an impression on the minds of the profession of the day, and of the future, as had been the case with Auenbrugger's neglected treatise on Percussion. Dr. Hudson confesses that in our country in particular the appreciation of Laennec's methods of investigation was at first very slow and gradual, and that the inventor of the stethoscope and his instrument were sneered at and ridiculed by some of our clinical teachers of the second decade of this century, or of even a somewhat later date.

But it is not merely the introduction of a new instrument and method of diagnosis that forms the great merit of Laennec's work. The truly scientific and inductive path of clinical research which he pursued was one which clinical observers of all time should closely imitate. There was, in the first place, the most careful and close observation of all the symptoms and the physical signs of diseased conditions,

for Laennec was not so captivated with his own method as to neglect all other helps to knowledge. This observation of fact was followed or accompanied, at the bedside, by cautious and well-balanced judgments of the diseased conditions (diagnosis and prognosis), based on the observed phenomena and their connexion with his previously acquired knowledge of the various pathological processes and their results. And finally, there was the repeated careful verification of the judgments he had formed by experimental trials, and by a constant comparison of his preconceptions with the revelations of the post-mortem-room, or with other more favourable terminations of disease.

It was natural, therefore, that a new method of diagnosis, proceeding on such safe lines as these, should, within the half century—which has elapsed since its general introduction, have been itself the means of disclosing the necessity for the amplification and correction of much that its founder originally promulgated. But the wonder is that he was able to accomplish, in the short ten years that were left to him after his discovery, so very much that has stood the test of time and of increased physiological, pathological, and clinical knowledge. And when we consider not merely his own immense additions to medical knowledge in a most important class of diseases, but also the mighty influence of his method on future progress in clinical research, with the new lights it has thrown on the prevention, prognosis, and treatment of disease, we must feel constrained to admit the justice of the statement of Dr. Addison, that in the opinion of many, the great author of "*De l'Auscultation Médiate*" had contributed more towards the advancement of the medical art than any other individual, either of ancient or modern times. For, in the language of another of the great masters in clinical medicine, now also, unhappily, with the dead (Stokes), "Time has shown that the introduction of auscultation and its subsidiary physical signs has been one of the greatest boons ever conferred by the genius of man on the world. A new era in medicine has been marked by a new science, depending on the immutable laws of physical phenomena, and, like the discoveries founded on such a basis, simple in its application and easily understood. . . . A new guide to the treatment, and a new help to the early detection, prevention, and cure of the most widely spread diseases which affect mankind."

It might be well, by way of variety, were the example of Dr. Hudson more frequently followed; and the study of the life and deeds of many men once famous might be invaluable in teaching us at once what to seek after and what to avoid. Dr. Hudson deserves the thanks of the Association.

THE SELECT COMMITTEE ON MEDICAL REFORM: THE EVIDENCE OF DR. ANDREW WOOD.

LAST week we intimated that this Committee had completed its labours for the present Parliamentary session, and we supplied our readers with a report of the evidence furnished by the last two witnesses examined, Mr. Ernest Hart and Dr. Andrew Wood. We were then unable to complete these editorial summaries of the evidence brought before the Committee, the important and well-weighed evidence of Dr. Wood being reserved for to-day. The answers of the representative of the Royal College of Surgeons of Edinburgh in the General Medical Council were given with characteristic candour, clearness, and decision, and are worthy of attentive consideration as coming from one who, as a prominent member of the Council and chairman of its Business Committee since the beginning, has shown himself to be possessed of an intimate practical acquaintance with the questions before the Select Committee, regarding some of

which he has ably maintained very definite and decided opinions in the Council and before the professional public.

Dr. Wood began by contrasting, in detail, the condition of the medical profession, especially in respect of its educational status, before and since the passing of the Medical Act of 1858. Though progress had been very slow and gradual at first, within recent years immense advances had been made. He was convinced that, on the whole, the Act had been productive of much good, though he was not prepared to assert that all the improvements which had taken place in medical education were due to the Act or to the Medical Council which it established. He was of the same opinion as Professor Turner, that there was one most serious blunder in the Act—viz., the omission of a special prohibition against the admission of anyone on the Register who could not produce evidence, as by a double qualification, of a satisfactory practical knowledge of all the three great departments of practice—medicine, surgery, and midwifery. Dr. Wood thought that if evidence of this extent of knowledge, so necessary in the interests of the public, had been enforced as a condition of registration, we should have heard little of the present cry for medical reform.

One direct consequence of such a clause, he thought, would have been the formation of voluntary combinations, for examination purposes, of the different corporations in England and Ireland, similar to the combinations that had been working satisfactorily in the case of the Scotch corporations for the last twenty years. These conjoint examinations of the Scotch corporations he explained at length, pointing out how they afforded a saving both of time and of money to candidates who wished to obtain a licence in both medicine and surgery. It was this saving of time, trouble, and expense which, he thought, accounted for the fact that many English and Irish students who have not been educated in Scotland go up to Edinburgh for the double licence. Dr. Wood admitted that there might also have been a prevalent notion that the examinations of the Scotch corporations were in certain respects easier than some similar examinations elsewhere, but he stoutly maintained that they were as high as they could be pitched at present for the class of men who were to become general practitioners, and that their very large percentage of rejections showed that if any incompetent men did go up trusting to an inefficient examination, such candidates were speedily undeceived. Dr. Wood further alluded to an undoubted advantage, from the public point of view, of the licences of the Edinburgh corporations over some of those most patronised by candidates elsewhere—viz., that even for a single qualification a student was examined in all the departments of medical practice.

As this matter of the migration of students to examining boards is important in itself, and has attracted much notice, we may be permitted to remark that some knowledge of London medical students enables us to mention another important reason, in addition to those alluded to by Dr. Wood, for the popularity among them of the Edinburgh licences. While they (the students) are undoubtedly accustomed to regard the standard of the English College of Surgeons as somewhat higher in those few subjects (and these not including some of the most important ones for general practice) in which it does examine, there are continually recurring complaints, as our readers are aware, not so much of the severity of the test as of the "catchy" and unequal nature of the questions of the English College, and of the too frequent exhibition of a lamentable want of tact, or even of temper, on the part of the examiners. It is on such grounds as these that students themselves explain the too frequent occurrence of failure, at the English College of Surgeons, of men who were known to their teachers and classfellows as among the best of their year; while some of their decidedly

inferior, but more lucky or less easily perturbed, companions had made a satisfactory appearance. And it is just the absence of everything of this nature at the Edinburgh examinations that furnishes the other reason we have hinted at for their popularity among English students. For even rejected students declare that the mere method of conducting the examinations in the North differs from certain London models in being always fair, honest, and gentlemanly, and that some of our London examiners would do well to take lessons in the art of examination, as in that of teaching, from their northern *confrères*. We have thought it only right and proper to make this statement at a time when nothing else but insinuations of mere inferiority of the examination-standard seems to occur to most of us as the full explanation of the popularity of certain licensing boards. We forget that the character and tact of the examiners, as such, may differ even much more than the standards of proficiency for the ordinary pass examinations in similar bodies are nowadays likely to do, yet the fact that it is so is perfectly well known to all who have much acquaintance with the students of our London schools.

But while thus in favour of voluntary combination, for examination purposes, of different corporations, Dr. Wood was as uncompromisingly opposed as ever to the English scheme of three compulsory conjoint boards, embracing and replacing the qualifying bodies in the three divisions of the kingdom. He at once admitted that he had at first been rather taken with the abstract proposal, but he had soon changed his mind when the subject was really inquired into. The Scotch Branch Council and the various licensing bodies in Scotland had loyally endeavoured to frame such a scheme as was indicated, but, after many attempts, they were obliged to declare themselves unable to come to a satisfactory settlement, and the almost unanimous opinion both in the corporations and in the universities of Scotland was strongly against the English proposal in anything like its present form. And besides the insurmountable difficulties in arranging the details of the proposed scheme, he thought that three boards would practically secure no greater uniformity in the minimum qualifications than the existing nineteen. The objection made by the universities of Scotland that the scheme would tend to level down their examinations, was one which he believed to be well founded, but what the corporations felt more was that the adoption of the compulsory conjoint scheme would practically remove their *raison d'être* as useful, independent bodies, possessed of a deliberative and executive power for good over the education and behaviour of their licensees. He did not at all think that the corporations would suffer pecuniarily from the adoption of such a scheme, but they objected most strongly to having their rights and influence curtailed by the compulsory adoption of the details of a scheme framed to suit the English bodies. Dr. Wood took care to correct a mis-statement made by Mr. Simon before the Committee, that he (Mr. Simon) believed that the change of front shown by the Scotch bodies in relation to the conjoint scheme was mainly due to the waning influence of Sir Robert Christison, who had spoken in favour of the proposal in the Medical Council. Dr. Wood informed the Committee that Sir Robert had also changed his mind on the subject as completely as any of them, when once he began to see the practical difficulties of the proposal, and had in fact written a pamphlet giving strong reasons against the adoption of a scheme of the form proposed by the English bodies.

The farthest Dr. Wood was inclined to go in the way of a compromise would be to allow that a central board might have the power of examining all candidates in the clinical departments of medicine, surgery and midwifery, in their pass examinations; and, while he would be very reluctant to make even this concession to the advocates of compulsory

conjoint boards, he would rather prefer no legislation at all than have the rights and independence of the qualifying bodies more seriously infringed by this revolutionary proposal. In thus speaking in behalf of the rights of the corporations he did not include the Apothecaries' Societies, whose functions as medical licensing boards were no longer required, and would, he was convinced, have practically ceased ere now if the London and Dublin Colleges of Physicians and Surgeons had been wise enough in their generation to institute conjoint combinations similar to those of the Scotch bodies.

Dr. Wood also gave evidence directly contrary to Mr. Simon's wild proposition that the minimum standard of the proposed conjoint board in Scotland should be raised to what is at present demanded by the universities there. We pointed out at the time that the speedy effect of such a system, if the same standard were adopted in all the divisions of the kingdom, would be to deprive the public of the services of a sufficient number of practitioners, as the universities demand a higher proficiency and a wider range of knowledge than could be universally imposed upon the general practitioner class of candidates, who, as it is, are decreasing relatively to the population of the country. Dr. Wood, representative of a corporation as he is, agreed with us entirely on this point, using almost the same language to support his opinions.

In regard to the constitution of the Medical Council, Dr. Wood expressed his belief that it was really desirable that more representatives of the general practitioner class should be included among its members. He was not prepared to say what was the best method of securing such representatives, though he was afraid the proposed system of a general vote of the members of the profession would prove troublesome and mischievous in practice, and he indicated his opinion that the Crown would have no difficulty in finding general practitioners who would have the confidence of the profession. He further stated, as the result of his great experience of the business of the Council, that that body would be all the better for an addition of four or six members to its present number, as much valuable work could then be done by separate committees. He did not think the Council ought to have greater mandatory power over the licensing bodies than it possessed at present; for he thought the system of moral suasion by means of recommendations had, in all important instances at least, been found to secure as speedy and uniform a progress as was desirable when independent licensing boards, each having its own local traditions and determining circumstances, had to be dealt with. In answer to Dr. Lyon Playfair, he said there would be no difficulty, he thought, in procuring for the Committee a tabular statement showing what recommendations the Medical Council had issued since 1874, and whether the practice of the different bodies was conformable to these recommendations. Such a statement had been compiled up to 1874, and the two together will furnish authoritative evidence of the manner in which the Council's behests have been attended to.

Like some previous witnesses, Dr. Wood was in favour of diminishing the amount of money paid as fees to the members of the Council. He proposed that they should receive three instead of five guineas daily during the meetings. In this way money would be saved for carrying out what he regarded as a most important work—that of the frequent visitation of examinations by delegates from the Council. He thought, in fact, that if the Medical Act were amended so as to demand the evidence of competent knowledge in every candidate for registration, of both medicine, surgery, and midwifery, and if these visitations of the examinations by the Council were conducted frequently and continuously, there

would then be nothing left to complain of in respect to the medical education and licences of the country, and the nearest possible approach to an equality of the minimum examination standards would be obtained. This result would thus be secured without having resort to what he repeatedly characterised as the revolutionary proposal of the compulsory establishment of three conjoint boards, the effects of which in securing a uniform satisfactory minimum standard, would, he maintained, be as futile as with the present nineteen bodies, even if the difficulties in the way of their general adoption were not, as he believed they were, practically insurmountable.

MEDICAL LEGISLATION.

THE interests of the medical profession, and, coincidently with them, those of the public, are so profoundly involved in the deliberations of the Select Committee of the House of Commons, which has lately been sitting upon the Medical Acts Amendment Bill, that it may be well once more to say a few words, especially upon the constitution of the Committee, and upon the chief subjects it has to deal with. Some of the members of the Committee—as, for example, Sir Trevor Lawrence, Mr. Mitchell Henry, Dr. Lush, and Dr. O'Leary—have deep professional sympathies with the questions submitted to them, and are very competent to form just and reasonable opinions about them. The Chairman, Mr. Forster, has evidently been taking pains to obtain the best information he can, and the same may be said of Mr. Mills and Mr. Errington; whilst Dr. Lyon Playfair and Mr. Plunket are men of great ability, whose University sympathies, though widely different in fact, still have led them to take a clear and decided view of the subject. The other members of the Committee probably, with the exception of Mr. Wheelhouse and Dr. Cameron, know little about the subject before them, and do not really seem to care to be better informed. Such a Committee might be very capable of forming reasonable opinions on the subject of inquiry if it were a simple one, or one more consistent with their own avocations or pursuits. But we look with considerable anxiety and some fear as to what the ultimate result of their deliberations may be upon a subject so complicated as that of the education of the members of the medical profession; how far the Medical Council has failed to perform its duties; how far it may be entrusted in the future with a variety of other and new duties; and whether it should be endowed with fresh powers, such as it might use to compel the bodies to follow what can at present only be made recommendations. Nor will the duties of the Committee be lessened by a study of the complicated and conflicting evidence, often highly technical, submitted to them.

With a Committee thus constituted, and with questions so involved, it may be highly useful to bring into a small space the principal points which really require to be inquired into and settled. These are, first, the constitution of the Medical Council, and incident to this the question of an increased scope or sphere of action and increased powers; secondly, the question of what has been called the "direct representation" of the medical profession; and, thirdly, the formation of a single or of conjoint examining boards. As it is now constituted, the majority of the members of the Medical Council consists of persons nominated by the several universities and corporations, together with the Crown nominees. It has been asserted that the personal feelings and sympathies of the majority thus constituted tend to promote the special interests of the bodies that send them, to the exclusion of the interests of the profession and the public. It is asserted that the Crown representatives are insufficient in number to counteract this feeling and this influence; and

that a certain number of persons should be added to the Council, who, belonging to the class that may be called family or general practitioners, could represent the interests of that class as opposed to those of universities and corporations. When this question comes to be really sifted, one has to determine how the sympathies of the one class or of the other can possibly interfere with the special duties assigned by law to the Council. These are simply those which refer to education and registration. On stripping the subject of the cloud that has been made to surround it, all that really has to be decided is whether those persons whose life-long work has been more or less associated with the special duties imposed upon the Council are not better qualified and more competent to decide upon these subjects than any number of persons selected from the profession at large. No doubt if the sphere or scope of the duties were extended, and if the Medical Council had to form opinions concerning the salaries of Poor-law officers, the employment of unqualified assistants, the counter-practice of chemists, and the proceedings of quacks and other unqualified persons, the addition of a certain number of general practitioners, with their special sympathies, might infuse some new life and vigour into the Council. But it is perfectly certain that if the Council were to take an active part in agitating on these questions, its existence would be looked upon by the public generally with jealousy and suspicion, and it would find itself less able to carry out, without being liable to a charge of self-interest, the duties for which it was originally constituted. The same remark applies to the suggestion that the Council should be consulted on certain subjects connected with vaccination, infectious diseases, and other sanitary matters. It is certain that the Medical Council, as now constituted, is not capable of undertaking such duties. If, unfortunately, they were forced upon it, these duties would be inefficiently performed, whilst those that really belong to the Council could hardly fail to be neglected.

Secondly, the remedy suggested for counteracting what has been called the imperfect constitution of the Council has been that of electing, by universal suffrage, a certain number of persons belonging to the profession generally. It seems to be generally admitted that such additions to a limited extent could do neither marked good nor harm; but it is confidently stated and believed by many that the mode of election of such persons would be, in the highest degree, detrimental to the profession on account of the bickerings, quarrellings, canvassing, committee-meetings, and other unbecoming kinds of display of feeling and disturbance which would occur, even as they occur now to a limited extent at the elections at the College of Surgeons. Neither would the best men stand for the seats on the Council; nor would the best men have much chance of being returned if they did stand. For these reasons, the opinions expressed by Sir James Paget and Dr. Quain before the Committee, that they would prefer no legislation at all to legislation that would lead to such results, appear to us to be highly reasonable and worthy of grave attention.

THE WEEK.

TOPICS OF THE DAY.

THE Committee of Distribution of the Hospital Sunday Fund have not lost much time this year in making their awards. The number of hospitals applying has this year increased from seventy-nine to eighty-one, and to these a sum of £22,342 was proposed to be given. The dispensaries numbered forty-six, and the amount set aside by the Committee for them was £2113. In addition, £260, being 1 per cent. of the gross receipts of this year's fund (so far as at present known), has been set aside for the purchase of surgical

appliances. This accounts for the £24,716 already received, and it was proposed that any further payments should be allowed to accumulate in aid of next year's fund. In moving the adoption of the report, Bishop Claughton congratulated the Council on the results achieved in the face of depressed trade and a wet Hospital Sunday. He also believed that the management of the various hospitals and dispensaries had greatly improved. Mr. Coope, M.P., seconded the resolution, which was then carried. The following are some of the awards made by the Committee:—General hospitals—Charing-cross, £555; French, £123; German, £606; Great Northern, £176; King's College, £1111; London, £2627; Metropolitan Free, £202; Poplar, £262; Royal Free, £555; St. George's, £1515; St. John's and St. Elizabeth's, £101; St. Mary's, £858; Seamen's Greenwich, £757; Middlesex, £1212; University College, £358; West London, £212; Westminster, £757. Special hospitals—City of London Chest Hospital, £707; Hospital for Consumption, Brompton, £308; North London, for Consumption, £202; Royal, for Diseases of the Chest, £181; Ventnor Royal National, for Consumption, 303; Belgrave Children's Hospital, £111; East London, for Children, £202; Evelina, £353; Hospital for Sick Children, £303; Home for Sick Children and South London Dispensary for Women, £80; Hospital for Hip Diseases in Childhood, £141; North-Eastern, £154; Victoria, £262; British Lying-in, £62; City of London Lying-in, £50; General Lying-in, £45; Queen Charlotte's, £171; Chelsea Hospital for Women, £35; Hospital for Women, £252; Hospital for Women and Children, £50; New Hospital for Women, £131; Royal Infirmary for Diseases of Women and Children, £202; Samaritan Free, £353; Cancer, £50; London Fever, £454; St. Mark's, for Fistula, £131; National, for Diseases of the Heart, £111; Lock (Female), £121; Lock (Male), £121; Hospital for Epilepsy, etc., £85; National, for Paralysed and Epileptic, £272; Central London Ophthalmic, £23; Royal London Ophthalmic, £202; South London Ophthalmic, £55; Royal Westminster Ophthalmic, £127; Western Ophthalmic, £32; National Orthopædic, £60; Royal Orthopædic, £50; Hospital for Diseases of the Skin, £20; St. John's, for Diseases of the Skin, £50; St. Peter's, for Stone, £50; Central London Throat and Ear, £35; London Homœopathic, £212; London Temperance, £140; Dental, £65; National Dental, £15. The remaining awards were to convalescent hospitals, cottage hospitals, and dispensaries.

A sub-committee consisting of Mr. Stansfeld, M.P., Sir Charles Trevelyan, Sir Rutherford Alcock, Messrs. Timothy Holmes, Radley, Frewer, and Herne, have been appointed to prepare a scheme for the establishment of provident dispensaries, and they have resolved—“1st. That as the dispensaries are intended to be for that portion of the population which is between the class able to pay the usual professional fees, and the destitute class provided for by the Poor-law, the rates of payment and the expenses should be arranged in accordance with that view; 2nd. That the rates of payment at the dispensaries be sufficient to defray the current expenses, including the due remuneration of the medical officers; 3rd. That the best mode of providing for the preliminary expenses and outfit be especially considered by the sub-committee; 4th. That a carefully considered arrangement be prepared for the prompt interchange of cases among dispensaries, and between dispensaries and hospitals according to the respective requirements; 5th. That an arrangement be also made to secure skilled and experienced nursing for dispensary patients when necessary.” The sub-committee is to hold a meeting in the first week of November next.

Last week, the Select Committee of the House of Commons

which has been appointed to consider the operation of the Contagious Diseases Acts, and which for the last few weeks has been engaged in hearing evidence, presented a formal report to the House, stating that they had not been able to complete their inquiry, and asking to be re-appointed next year.

At a recent meeting of the Middlesborough Sanitary Committee, Dr. Sadler remarked that lately the drinking-water supplied to the town had been very much discoloured, and on his having a sample analysed, albuminoid of ammonia, arising from sewage pollution, was found in it. He thought there ought to be a better system of filtration, or that the pouring of sewage into the Tees should be at once stopped. It was monstrous that the inhabitants of the town should be asked to drink diluted sewage, which was likely to produce diseases in persons with disordered stomachs, or whose systems were otherwise disorganised. The Chairman thought a formal representation should be made to the Water Board, asking them to use their most strenuous efforts to prevent the pollution of the water. He moved that the Town Clerk be ordered to write to the Water Board. In seconding the motion, Mr. Councillor Walton said the Water Board were already moving energetically in the matter.

A petition, addressed to the House of Commons, is lying for signature in Dublin, praying that the Irish University Bill may be so amended as to make provision for the conferring of degrees in all faculties on women. It is represented that the London University has already thrown open all its examinations, rewards, and degrees to females, and that the present is a fit opportunity for conceding their demand in Ireland.

It is satisfactory to learn that the statute to amend the Sale of Food and Drugs Act of 1875 has just been printed. Its principal object is to explain the meaning and effect of Section 6 in the recited Act, on which conflicting decisions have been given by judges both in England and Scotland. It is now enacted that, in any prosecution for the sale of adulterated articles, it is to be no defence to allege that the purchaser, having bought only for analysis, was not prejudiced by such sale. Neither is it to be a good defence to prove that the article, though defective in nature, or in substance or quality, was not defective in all three respects. Any seller or consignor, or any person or persons entrusted by him for the time being with the charge of milk for sale, if he shall refuse to sell a sample for analysis shall be liable to a penalty not exceeding £10; and any street or open place is to come within the meaning of the 17th section of the principal Act. This piece of legislation, it is to be hoped, will suffice to do away with the legal quibbles which threatened to render the original very useful Act abortive.

At the last weekly meeting of the Metropolitan Board of Works, after the transaction of a great deal of important business, the Works and General Purposes Committee submitted schedules, with maps annexed, of the lands proposed to be taken compulsorily for the purposes of the Goulton-street and Flower-and-Dean-street, Whitechapel, Improvement Scheme, and the St. George-the-Martyr, Southwark, Improvement Scheme, under the Artisans' and Labourers' Dwellings Improvement Act, and recommending that the clerk do forward such schedules and maps to the Secretary of State for the Home Department; and that an application be made to the same official to appoint an arbitrator between the Board and the persons interested in the property proposed to be taken. On the motion of Mr. E. Dresser-Rogers, both these recommendations were agreed to, but not without opposition on the part of Mr. Selway, who very reasonably contended that any additional schemes of this sort had better be deferred until the result of the Bill now before

Parliament in reference to these artisans' dwellings schemes had been ascertained. It certainly does seem unwise for the Metropolitan Board of Works to go on increasing their difficulties in this direction when they have admitted the disastrous results which have attended their previous efforts to carry out an apparently impracticable Act.

It can hardly be from a sense of due proportion or of editorial courtesy that the *Lancet*, after giving the evidence of a member of its own staff and of other witnesses at very considerable length, published last week what purported to be a version of the evidence of the Editor of the *British Medical Journal*—evidence which occupied five hours, and was at least very full of matter—in a condensed paragraph of half a column. Such a display of feeling does not tend to increase the usefulness or raise the character of any journal, and deserves to be noticed in the interests of journalistic courtesy and propriety.

MEETING OF THE BRITISH MEDICAL ASSOCIATION.

THE forty-seventh annual meeting of the British Medical Association has been held in Cork during this week. It has proved in every way successful, the members meeting with a most hospitable reception from their Irish brethren. The President's Address and the Address on Medicine will be found elsewhere, together with a letter from our correspondent up to Tuesday's date. Further reports will be given next week. We hear that the next meeting will be held in Cambridge, that Liverpool will entertain the Society in 1880, and that the jubilee meeting in 1881 will probably take place in London. Professor Humphry will be President next year, and the choice could not have fallen on a worthier man.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE thirty-fourth annual meeting of this Association was held on Wednesday, July 30, at the Westminster Palace Hotel, Dr. Lush, M.P., presiding. At the morning sitting the time was principally devoted to the consideration of a new set of rules for the Association, which were finally approved. At the afternoon meeting Dr. Lush read an address, which resulted in a long discussion upon the position occupied by licensed houses, and recent criticisms upon them in the Press. The remaining business included the passing of a resolution petitioning the General Medical Council to have mental diseases made a subject of examination for medical degrees and licences, and the adoption of a series of resolutions in favour of a more satisfactory system of pensions for asylum officials. Mr. Mould, of the Cheadle Asylum, was unanimously elected President for the ensuing year.

THE WEATHER AND THE HEALTH OF LONDON.

THE Registrar-General's weekly return for the period ending 26th ult. still affords a convincing proof that, however unpleasant the weather may have been during the present summer, it has exercised a marked influence on the mortality returns. During this particular week the number of births registered in London was 2482, and the number of deaths 1208. Allowing for increase of population, the births exceeded by 78, whereas the deaths were so many as 535 below the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which had been equal to 17·4, 17·0, and 17·2 per 1000 in the three preceding weeks, was 17·4 in the week under notice, so that during the past five weeks of the current quarter the metropolitan death-rate has averaged but 17·3 per 1000, against 23·1, the average rate in the corresponding weeks of the five years 1874-78. The 1208 deaths included 6 from small-pox, 49 from measles, 58 from scarlet fever, 8 from diphtheria, 33 from whooping-cough, 15 from different forms of fever,

and 25 from diarrhœa; thus to the seven principal diseases of the zymotic class 194 deaths were referred, against 197 in each of the two preceding weeks. These 194 deaths were, moreover, no less than 348 below the corrected average number from the same diseases in the corresponding week of the last ten years, and were equal to an annual rate of 2·8 per 1000. And yet the duration of registered bright sunshine in the week, as recorded at the Royal Observatory, Greenwich, was only 15·6 hours, or 14 per cent. of its possible duration, the sun being above the horizon during 110·5 hours.

THE ANNUAL HEALTH REPORT ON ST. MARYLEBONE PARISH. DR. JOHN WHITMORE'S annual report on the health of the parish of St. Marylebone for the year 1878 requires only a brief notice at our hands, seeing that so many of his monthly reports have from time to time been summarised in these pages. The number of births registered in the parish during the year under notice was 5010, as against 4970 in 1877; the birth-rate to population was 31·45 per 1000, or about 1 birth to every 32 persons. The deaths registered during the year amounted to 3623, being 132 more than in the previous year; the death-rate to population was 22·74 per 1000, and with the exception of that of 1877, was the lowest that has occurred in the parish in any one year since 1856. The average annual number of deaths during the last twenty-two years was 3837; those of last year were therefore 214 below the average. Dr. Whitmore bears testimony to the great advantages which have resulted from the erection of a mortuary for the parish, not the least of which is the opportunity it affords for the removal of dead bodies of the poorer classes from their one living-room, pending preparations for interment. So highly does he think of the utility of these buildings, that he strongly urges upon the Vestry the advisability of erecting yet another in the northern district of the parish.

INFANTILE MORTALITY IN LEICESTER.

IN some remarks appended to his annual report on the sanitary condition of Leicester for the year 1878, Dr. J. Wyatt Crane, the Medical Officer of Health for the district, refers to the infantile mortality of Leicester as compared with other towns, and he puts forth a suggestion that the high death-rate of young children recorded in his district is to be accounted for by the difference in the employments and habits of the respective populations. He shows that infantile diarrhœa may be accounted for as follows:—First, early marriages, resulting in weakly and debilitated children; secondly, inattention on the part of the mothers; thirdly, artificial feeding; fourthly, unscientific medication with cordials and soothing syrups; fifthly, the effects of summer heat acting upon these conditions. But as the same tale may be told of nearly every other manufacturing town, these conditions can scarcely be said to account for the excessive mortality amongst its young children which has earned for Leicester an unenviable notoriety, and which must after all be considered referable to some defective sanitary arrangements still remaining to be discovered. This, however, is not Dr. Crane's opinion, since he closes his report as follows: "In conclusion, while the sanitary state of Leicester is good, the statistics of 1878 and previous years prove that diarrhœa, like bronchitis, is a meteorological accident, and that the causes of our exceptionally high infantile mortality are traceable to defective social conditions." Yet in August of 1878 the Local Government Board declined to come to any such definite conclusion, and stated that they feared too little was known of the causation of the epidemic amongst children to enable them to advise the Sanitary Authority with confidence, as to the steps necessary to be taken for its abatement.

THE ARMY MEDICAL SCHOOL.

THE thirty-eighth session of the Army Medical School was brought to a close on Monday, the 4th inst., when the results of the examinations were announced in the Lecture Theatre, in the presence of the military and medical staff of the Royal Victoria Hospital, the professors of the School, and a number of visitors, among whom were Colonel Johnston, Military Secretary to the Secretary of State for India in Council; Surgeon-General Sir Joseph Fayrer, K.C.S.I., Physician to the Council of India; Inspector-General of Hospitals and Fleets Dr. Domville, C.B.; Dr. Norman Chevers, late Principal of the Medical College, Calcutta, and others. Colonel Johnston addressed the candidates, and in a very able and interesting speech sketched out the future career of an Indian officer, and dwelt upon the wide and interesting field of usefulness that lay before him. He then presented the prizes to Mr. F. F. Perry, of her Majesty's Indian Medical Department, who had had the good fortune to carry them all off, viz., the Herbert Prize for general excellence, the Martin Memorial Medal for Military Medicine, and the Parkes Memorial Bronze Medal for Hygiene. Dr. Norman Chevers then addressed a few words to the candidates, giving expression to the pleasing recollections he had of his Indian career, extending over thirty years. The company then adjourned to lunch at the officers' mess. During the session there have been fourteen Indian and nine Naval candidates; no candidates for the Army having attended for two sessions, pending the proposed alterations which have been so long looked for. The following are lists of candidates for commissions as surgeons in her Majesty's Indian and Naval Medical Services who were successful at both the London and Netley examinations on the 4th inst. :—

Indian Medical Service.

	Marks.		Marks.
1. F. F. Perry . . .	5535	8. W. F. Thomas . .	4398
2. P. W. Dalzell . .	4934	9. J. C. Smith . . .	4388
3. S. Little	4930	10. H. G. L. Wortabet	4275
4. G. H. D. Gimlette .	4910	11. E. P. Frenchman .	4071
5. C. B. Hunter . . .	4837	12. R. James	3949
6. M. Gaisford . . .	4835	13. S. C. Sarkies . .	3846
7. C. H. Murray . .	4580	14. D. S. E. Bain . .	3622

Naval Medical Service.

	Marks.		Marks.
1. A. G. P. Gipps . .	4642	6. J. B. Clibborn . .	3366
2. J. Hunter	4407	7. W. G. Jack . . .	2990
3. R. A. Simpson . .	3895	8. A. Emson	2713
4. J. F. Donovan . .	3494	9. R. E. Biddulph . .	2377
5. R. McIvor	3438		

A CASE OF HYDROPHOBIA.

AT 11.30 p.m. of Tuesday, July 29, an unmarried lady, aged twenty-five years, died at the Meath Hospital, Dublin, on the fourth day of an attack of hydrophobia. She had been severely bitten in the lower lip, on Wednesday, June 11, by a favourite fox-terrier dog, which had shown unmistakable signs of rabies, having strayed away from home a day and a night, and having evidently received rough handling. The lady remained in good health up to Saturday, July 26, when she complained of twitchings and neuralgic pains in the wounded lip, which had been freely cauterised in the first instance, and had long since healed. Next day a peculiar spasmodic breathing set in. On the following Monday she was removed to the Hospital. The treatment consisted in the plentiful administration of suitable food, and hypodermic injections of morphia, with atropia. Chloral and potassic bromide were also given. Curara was not used. She died suddenly, having been conscious to the last. On the last day of her life she was inclined to be violent at times. The period of incubation in this case was forty-five days.

EDINBURGH UNIVERSITY CLUB.

THE 1st of August being Capping Day, as is usual on such occasions, the Club held its annual dinner at St. James's Hall, when a number of old *alumni* sat down to a sumptuous repast. Among them we observed Sir Charles Tupper, Dr. John Rae (the Arctic traveller who discovered Sir John Franklin's remains), Dr. Sieveking, the Rev. Dr. Ross, and other distinguished guests. The chair was filled by Dr. George Harley, F.R.S., who, after the usual loyal toasts, proposed that of "Prosperity to our *Alma Mater*" in a rather unusual style, which called forth rounds of applause. After alluding to the different educational topics of the day, he drew an interesting parallel between the present anti-vivisection crusade, and that against the dissection of the human body in the cause of philanthropy, which raged so formidably fifty years ago. And as regards that of anti-vivisection, he said that it arose entirely from the mistaken idea that its cruelties are enormous, and its advantages *nil*: while he—and as he had formerly been a vivisectionist he could speak with authority on these points—boldly opined that all the cruelties of the vivisectionists during a hundred years, if put together, would not amount to those perpetrated in the name of sport during a single hunting and shooting season. Moreover, as to its advantages to the human race, they were simply, he said, beyond the powers of calculation, though no more apparent to the uninitiated mind than is the value, of a nail to an equestrian. But as the learned Herbert, in his "*Jacula Prudentium*," puts it—"For want of a nail the shoe is lost: for want of a shoe the horse is lost: and for want of a horse the rider is lost," so Dr. George Harley said he would say, "For want of vivisection physiology is lost: for want of physiology rational medicine is lost: and for want of rational medicine the patient is lost." A congratulatory telegram was sent in the course of the evening to the newly fledged M.D.'s, and speedily responded to. The answer, read from the chair, was warmly received, and the meeting broke up after singing "*Auld lang syne*" with united hands round the table.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—The library will be closed from Monday, August 11, to Wednesday, September 10, both days inclusive.

HYGIENE OF READERS.—At the Russian Hygienic Society, M. Malarewsky, speaking of the progress which myopia is making among studious persons, has proposed that printing should in future be executed by means of white letters on a black ground. This system has been tried by experiments made simultaneously on fifty persons, and the results obtained have been sufficiently conclusive for physicians to encourage the proposed reform, which would constitute a revolution in the art of printing.—*Annales d'Hygiène*, July.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN JULY, 1879.—The following are the returns (by Dr. Meymott Tidy) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, etc.	Nitrogen: As Nitrates, etc.	Ammonia.		Hardness. (Clarke's Scale.)	
				Saline.	Organic.	Before Boiling.	After Boiling.
<i>Thames Water Companies.</i>	Grs.	Grs.	Grs.	Grs.	Grs.	Degs.	Degs.
Grand Junction ...	21.74	0.139	0.105	0.000	0.011	14.2	3.0
West Middlesex ...	21.00	0.135	0.095	0.000	0.011	13.3	3.0
Southwark and Vauxhall ...	19.80	0.133	0.120	0.000	0.008	14.2	3.8
Chelsea ...	19.00	0.105	0.120	0.000	0.010	14.0	3.0
Lambeth ...	20.80	0.105	0.094	0.000	0.006	13.2	4.8
<i>Other Companies.</i>							
Kent ...	27.90	0.001	0.300	0.000	0.001	18.2	5.1
New River ...	19.80	0.056	0.135	0.000	0.003	14.0	4.0
East London ...	21.80	0.066	0.105	0.000	0.007	14.0	3.6

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours.

The water was found to be clear and nearly colourless in all cases.

FORTY-SEVENTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

(From our Special Correspondent.)

CORK, Tuesday, August 5.

THE stranger who arrived in Cork on Sunday afternoon last, after a long and depressing journey from London, might well be excused the gloomy prognostications which would fill his mind on his way from the station to the hotel. Nor was a walk through the city shortly afterwards, in a drizzling rain, at all likely to improve his spirits. With Monday, however, and a splendid sunny day, came better hopes and more correct indications of the loyal welcome which the people of Cork had prepared for the Association. Finally, a visit to Queen's College—the head-quarters of the Association during this meeting—dispelled any lingering fear which one may have entertained either as to the readiness of the people to entertain us, or as to the fitness of the place for the purposes of the meeting. This is the second time that the Association has met in Ireland, the first occasion being in Dublin in 1867, under the presidency of the late Dr. Stokes. Since that time the number of Irish members has rapidly increased, and is fast increasing, and Cork is now the centre of a large and thriving branch. Queen's College is situated on an elevation about three-quarters of a mile west of the city; it is surrounded by large grounds, and is a very imposing stone structure, admirably adapted for its purposes. Besides large lecture-halls, there is a series of smaller laboratories, amply provided with all the most modern scientific instruments for teaching purposes, also museums of anatomy, human, comparative, and pathological, of natural history, etc. To judge by appearances, one would say a flourishing, well endowed, and well conducted College.

The work of the Association, as in former years, is divided into six chief sections—(1) Medicine, presided over by Dr. Andrew Clark, of London; (2) Surgery, by Professor Tanner; (3) Obstetric Medicine, by Dr. Kidd; (4) Public Medicine, by Dr. Grimshaw; (5) Psychology, by Dr. Eames; (6) Physiology, by Mr. Henry Power. Each of the sections has selected one or more special subjects for discussion, on which papers have been invited from members who were thought to be specially interested in them. Undoubtedly such an arrangement will add materially to the success of the meeting, as well as to the despatch of business. If there is any fault in this arrangement it is this: its too great extent. The time at disposal for this purpose is, after all, very short indeed—two afternoons from two to five o'clock, and one morning from eleven to one o'clock. An *embarras de richesses* is, however, decidedly better than a spare bill of fare, which would have sent the hungry empty away. The general organisation of the work shows evidences of rapid and orderly development, and, no doubt, in time both more work and more pleasure will be the outcome of it all. For my own part, I think it would be desirable to publish abstracts of all the special papers *before* the commencement of the meeting, so that intending speakers might have time to think over the opinions expressed by others, and be the better prepared to express their own views thereon. Although the meeting nominally opens to-day, many visitors arrived yesterday, and devoted the time to a study of the locality, a by no means unnecessary occupation, seeing the extent of the College buildings. At one o'clock this day about 300 visitors had enrolled themselves, and others were fast pouring in.

Among the better known names the following may be mentioned:—Dr. Falconer, the retiring President; Dr. Carpenter, President of the Council; Mr. Husband, of York; Dr. Waters, of Chester; Dr. Andrew Clark and Mr. Savory, of London; Dr. Grimshaw and Dr. Hudson, of Dublin; Dr. Fergus, of Glasgow. A number of distinguished foreigners had also arrived, including Professor Sayre, of New York; Charcot, of Paris; G. de Mussy, of Paris; Dr. Heischberg, of Berlin; and many others.

Yesterday (Monday) was beautifully fine, and, as the "off-day," was chiefly spent in drives to the surrounding dis-

trict, which is exceedingly picturesque. Blarney Castle was visited by many, and the beauty of the country all round made the drive on an Irish car particularly enjoyable. To-day the weather has been unsettled, heavy showers falling at intervals. The public business did not commence until three o'clock this afternoon, which was a misfortune, seeing how much there is to get through. There was a meeting of Committee of Council, and also one of the Council of the Association, in the morning.

The general meeting was very harmonious, and was largely attended. There were no burning questions to settle as at the last year's assembly, though a member felt called upon to take exception to some editorial comments on lunatic asylums, which had appeared in the *Journal* during the past year. The minutes of the last annual meeting and extraordinary general meeting were read and confirmed. The retiring President, Dr. Falconer, after a few remarks on the general prosperity of the Association, and more especially as related to Ireland, vacated the chair in favour of Dr. Denis O'Connor, Senior Physician of the Cork Hospital and Professor of Medicine at the Queen's College. Just as a vote of thanks was about to be proposed to the retiring President, Dr. Sullivan rose and said he regretted that the Senate of the Queen's University could not meet as such outside its walls, or otherwise they would have liked officially to welcome the Association; but he (Dr. Sullivan), as their representative, stated that as this meeting was the first that had been held in one of the Queen's Colleges, the Senate had considered the occasion was one which ought to be specially marked, and for this purpose they had decided to grant the degree of M.D. *honoris causa* to the new and to the retiring President. The vote of thanks to the retiring President was then eloquently proposed by Dr. Waters, seconded by Dr. Carpenter, and carried by general acclamation. Dr. O'Connor then delivered his address. He dwelt on the improvements which had taken place in the City of Cork within the last twenty years, and on the advantages of large associations of this kind as tending to sink individual narrow-mindedness and to favour the growth of larger views, whether professional or social; and he bade the Association welcome in the name of his colleagues. The annual report of the Council was then read. It appears from this that the Association is rapidly increasing in numbers, and that its finances are in a flourishing condition, in spite of the heavy expenses last year, attendant on getting into their new premises in the Strand, and the purchase of type, etc., for the printing of the *Journal*. It was next announced that the gold medal of the Association, "for distinguished merit," had been awarded to Surgeon-Major Reynolds, V.C., for his courageous conduct at Rorke's Drift. The passing of Dr. Cameron's Bill about habitual drunkards was alluded to; and the hospital out-patient reform, as well as medical reform, were also spoken of. This practically brought the meeting to a close.

The reception at Queen's College in the evening by the President of the Association and the local Reception Committee was a brilliant gathering, and included all the best families in and about the city. Upwards of 2000 persons were present. The evening was fine, and the large grounds around the College, brilliantly lighted by the electric light, were thronged with the visitors up to a late hour. The arrangements, which were all under the direction of Professor Jones, reflect great credit on his administrative capacity. The whole of the College buildings were thrown open on the occasion, and were illuminated by the electric light. M. Berly, during the evening, gave an interesting account of the whole subject, and illustrated it with a series of experiments, which to the Cork people were the more interesting as the present is the first occasion on which electricity has been practically used there for the purposes of lighting. The inhabitants of Cork were evidently impressed with the importance of the occasion, for they collected in great numbers to see the visitors arrive at and leave the College.

With the exception of some heavy showers the weather throughout the day had been exceedingly fine and bright. The work of the meeting really begins to-day (Wednesday), and a varied programme has to be got through. Professor Sayre gave one of his graphic demonstrations on hip disease, and met, as usual, with a very hearty greeting from his English brethren. The Address in Medicine by Dr. Hudson was most interesting, and not in any way inferior to some of its very remarkable predecessors which have from time to

time appeared in your columns. The special subjects for discussion (details of which I will forward in a subsequent letter) are, in Medicine, "The Value of Mountain Air in the Treatment of Phthisis"; in Surgery, "The Diagnosis and Treatment of Joint Diseases in the Various Stages," to be opened by Dr. Sayre; in Obstetric Medicine, "Intra-uterine Medication," in Public Medicine, "The Influence of Drinking-Water in Originating or Propagating Enteric Fever, Diarrhoea, etc."

FROM ABROAD.

SYMPATHETIC OPHTHALMIA.

In a lecture delivered at his ophthalmic clinic, Dr. De Wecker (*Gaz. des Hop.*, June 5) made the following observations:—

Sympathetic ophthalmia is a form of irido-choroiditis characterised by a peculiar plastic tendency. From the commencement the exudations tend rapidly to attach the iris to the crystalline. In an ordinary irido-choroiditis such adhesion takes place only at the edge, the rest of the iris being free; but in this form the iris is applied to the whole surface of the lens by very adherent exudations. Again, the exudative masses which form with the choroid have a special tendency to retract. The anterior chamber then, in place of presenting the shape of a funnel, assumes, in consequence of these retractions, an inverse form, so that the antero-posterior becomes its smallest diameter. As a consequence of its numerous and intimate adhesions with the crystalline, the iris becomes greatly distended and vascular. This irido-choroiditis most frequently arises in consequence of injury done to the other eye, the accidents which most expose to it being those which affect the anterior portion of the ciliary body, the impaction of the iris, and the impaction of a fragment of the crystalloid. In its progress sympathetic irido-choroiditis leads to the separation of the pericorneal zone, the choroid becoming sometimes entirely detached from the sclerotic owing to the great retraction of the adhesions. This is rapidly followed by the softening of the eye, an essential phthisis. In young subjects the inflammation may pass away, and the masses of exudation become absorbed, so that the anterior portion of the eye is sufficiently clear to allow of the fundus being seen. Very little vision, however, returns, and the affection is frequently propagated to the retina and optic nerve.

Sympathetic ophthalmia, for the most part, appears in the period between the seventh and the fortieth day. During the first week after the injury of one of the eyes it is not to be feared, and after the sixth week the greatest danger is over. Nevertheless, Dr. De Wecker has published a case in which the irritation did not supervene until twenty-six years after the primary lesion. The difference of time at which it appears may depend upon numerous causes—on lesions of the interior of the eye, or on effusions of blood which may supervene; or a bony or calcareous mass, having penetrated the eye without producing any grave occurrences, and remaining there immobilised for a long time, may from some cause undergo displacement, giving rise to a new traumatism that does not prove so indolent as the first, and induces a sympathetic irritation of the other eye. Sympathetic ophthalmia sometimes assumes a serous form; but this is rare, and is far less dangerous than the true plastic irido-choroiditis. The latter is so dangerous that it is of great importance to recognise it from its outset. Not infrequently it appears suddenly; but when there are premonitory symptoms they also implicate the ciliary nerves of the other eye. Vision becomes easily fatigued; there is pain; the amplitude of accommodation is diminished; and the eyes become rapidly injected, especially after sleep. These symptoms should put the practitioner on his guard, for sympathetic ophthalmia may rapidly appear.

Some twenty years ago the London school especially numbered ardent partisans of enucleation, every lost eye being condemned to be removed. This practice, however, is not sufficiently justified, especially in young subjects. It is a considerable operation, and we should remember that a patient who can preserve an eye that is still nearly regular in form is in a different position to one from whom the globe has been removed. In old persons, about the age of sixty, the question is more simple, as sympathetic accidents are

less to be feared. Enucleation should be practised when there are premonitory symptoms of irritation, fatigue of the eyes, peri-keratitic injection, and slight precipitates in the aqueous or vitreous humours. We should not hesitate to operate, even when the other eye has as yet exhibited no symptom, when we suspect that a foreign body may be encysted in the eye, and when this eye is still sensitive, and when retracted cicatrices cause redness of the eye from time to time. When the eyes remain painful, and if palpation of an injured eye induces attacks of pain in it, enucleation is also justified. "Here are indications enough to show that I do not refuse to practise this operation; but with regard to an indolent eye I have my reserves, and I reject it, because I fear exposing the patient uselessly to a sympathetic ophthalmia."

A surgeon finds himself in a very embarrassing position in a case in which vision is already lost in the eye that is the subject of the sympathetic ophthalmia, while a passable vision yet remains in the injured eye. What is he to do? The question of enucleation cannot be raised here. It has been proposed to divide the channels of transmission, the ciliary nerves, by penetrating the sclerotic at the level of the seat of injury. Dr. De Wecker considers it preferable not to divide the ciliary nerves in the interior of the globe, because such incisions are always dangerous when the object is to preserve the eye, but to perform their section at the exterior of the globe, around the optic nerve. Contrary to Graefe, he recommends that all operations on the eye attacked with sympathetic ophthalmia should be entirely abstained from. It is in no case possible to detach the iris from the crystalline and the ciliary processes; and the operation for artificial pupil has always furnished unfortunate results. It is to medical treatment we should have recourse at the commencement of a sympathetic ophthalmia, and this should be the same as in plastic and parenchymatous iritis, having as its basis the most energetic mercurialisation. After a certain time occlusion of the pupil results from the various anatomical changes that have taken place; but here also no operation should be performed on the iris. Sometimes, however, we may feel compelled to resort to an operation at the earnest instances of patients who still retain a good perception of light over a sufficient field of vision. But even in these cases we should not allow ourselves to be persuaded unless the patient has been free from all accidents for several years. The operation should be performed as in Graefe's operation for cataract.

Irido-choroiditis may occur *spontaneously*, and it is often observed in young girls at the period of puberty and in women who have reached the menopause. The lesion is connected with the irregularity in the functions of the uterus which occur at these two epochs; and in cases of dysmenorrhœa it should especially be attended to. When menstruation has become regular the affection of the eye is rapidly cured; and, moreover, surgical intervention is not attended with the same danger as in traumatic irido-choroiditis. The sole precaution to observe is the employment of instillations of eserine before and after the operation, in order to prevent the impaction of the iris, which might induce sympathetic ophthalmia.

GENERAL CORRESPONDENCE.

THE PROPOSED MURCHISON MEMORIAL.

LETTER FROM DR. ALEX. KEILLER.

[To the Editor of the Medical Times and Gazette.]

SIR,—On July 29 the Lecturers in the Edinburgh School of Medicine met, when, *inter alia*, the subject of the Murchison Memorial was brought before them, and there were then discussed terms of competition for the proposed memorial scholarship when competed for in Edinburgh, as explained in the circular issued by the Memorial Committee—viz., that "in Edinburgh the Scholarship will be administered by the Medical Faculty of the University, and be open to all its medical undergraduates." Resolved—

1. To protest against the unfair and invidious exclusion of the students in this School from participation in the competition for the proposed Murchison Memorial Scholarship, while the students of all the London medical schools are to be permitted to take part in it.

2. To endeavour to get the promoters of the scheme to remove this restriction, and to make and publish the necessary alterations, both as regards the competitors and the judges of the award in Edinburgh.

3. To withhold all countenance and material support from the scheme until such amendments have been made and duly notified.

4. That a copy of these resolutions be sent to the secretaries to the Memorial, both in London and Edinburgh, with a request that they be immediately submitted to their respective committees for consideration and adjudication thereon.

5. That a copy of these resolutions be sent to the editors of the various medical journals for publication.

I am, &c.,

ALEX. KEILLER,
Chairman of Lecturers.

Royal College of Surgeons, Edinburgh, July 29.

THE TREATMENT OF CAPE DYSENTERY.

LETTER FROM DR. B. NICHOLSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—Thanking your correspondent of "Five Years' Practice in South Africa" for his kindly, courteous, and confirmatory letter, I would endeavour to answer him as follows:—

1. While allowing that ipecacuan should have, as I have said, a more extended trial, my experience leads me strongly to doubt its being so efficient and universal a remedy for severe and purely bloody dysentery as from ten to twenty grains of mercury, whether calomel or grey powder. As stated, it acts like magic, and is without the slightest appreciable after ill effects. I can speak more confidently on this latter point, for such men bore the exposure of the rest of the campaigns, and I was seven years with one regiment. 2. I regret that I should have written so ill as to lead it to be supposed that I account astringents as in any way palliatives in the bloody dysentery. My endeavour was—both in narrating the case of hepatic abscess, and just before—to express my strong conviction that astringents in that stage are not palliatives, but destructives. 3. Porridge was suggested as possibly a useful article of diet in Cape dysentery, because in that of North China, where there is a large amount of specific deposit, and much more ulceration than in that of the Cape, it was very useful. In China, too, I had bread; in South Africa, dark, heavy as lead, unleavened dumps. But I omitted to state that I only used it and only recommend it in the truly chronic stage. 4. The shivering-like fits spoken of may have occurred occasionally, just as one may have something similar in indigestion with stomach-ache and diarrhœa, but I never observed it as at all a usual symptom; and my cases were so numerous, and my time in the hospital necessarily so protracted, that, had I been observant of them, I yet should have certainly heard of them from the patients themselves.

I am, &c.,

B. NICHOLSON, M.D.

P.S.—Allow me to add a remark (5) on the second paragraph of Surgeon-Major Black's letter of the 2nd inst. My attention was very early called to the chances of a scorbutic taint among the troops at the Cape. But I would state my perfect conviction that the latency of symptoms of which I spoke, and which is not equivalent to "freedom from active inflammation," was not merely due to such taint, but occurred in all cases, among which were some where no unprejudiced person could have supposed its presence. In like manner, the "hæmorrhagic flux" of the dysentery of North China, with its accompanying hepatic disorder and abscess, was due not to scurvy, but to the disease itself.

B. N.

MEDICAL NEWS.

UNIVERSITY OF GLASGOW.—The following is a list of degrees conferred by the University on the 31st ult. :—

Doctors of Medicine.—Archibald Brown, M.B., Scotland; Charles D. Hunter, M.B., Scotland; John Hutchinson, M.B., Ireland; Thomas Reid, M.B., Scotland; Robert Sinclair, M.B., Scotland; Arthur R. Waddell, M.B., Scotland.

Bachelors of Medicine and Masters in Surgery.—Thomas B. Adam, Scotland; William Allan, Scotland; John A. Barton, Scotland; Thomas B. Birchall, England; Peter Buchanan, Scotland; John M. Cameron, Scotland; Archibald K. Chalmers, Scotland; Alexander W. Crawford, Scotland; John Crawford, Scotland; Peter H. Cunningham, Scotland; Alexander Davidson, Scotland; William S. Donald, Scotland; John Duff,

Scotland; Neil Fullarton, Scotland; Robert Hamilton, Scotland; Mark K. Hargreaves, England; Edwin Haworth, England; Robert Lees, Scotland; David Longwill, Scotland; Robert Lyon, Scotland; Harry S. Lyons, Biscay; William M'Alister, Scotland; Angus M'Aulay, Scotland; James B. Mackenzie, Scotland; William J. Mackenzie, India; Angus Macphee, Scotland; William M'Vie, Scotland; Arthur Mehan, Scotland; Robert D. W. Meerey, Ireland; Dugald Mitchell, Scotland; William B. Moir, Scotland; Islay B. Muirhead, M.A., Scotland; Daniel Mungall, Scotland; Sambhu Chandra Nandi, India; Charles Napier, Scotland; William Nicol, Scotland; William K. Peden, Scotland; Charles Harry Pinck, England; Charles Pinkerton, Scotland; Alexander Barr Pollock, Scotland; William Pollock, Scotland; Robert Porter, Ireland; John M. Smith, Scotland; Ralph D. Stevenson, Australia; George Storer, Scotland; William Taylor, Scotland; George F. Wickens, England; William R. Willis, Scotland; James S. Wilson, Scotland; John Neil Wilson, Scotland; John M. Yair, Scotland; Henry Yarrow, Scotland.

Bachelors of Medicine.—John Glaister, Scotland; William D. MacKeith, Scotland; John Sinclair, Scotland.

The following gentlemen were named as entitled to honours, to high commendation, and to commendation, on account of distinguished merit at the various examinations for the degrees of M.B. and C.M.:—

Honours.—William K. Peden, Ralph D. Stevenson.

High Commendation.—Archibald K. Chalmers, Islay B. Muirhead, M.A., William Nicol.

Commendation.—Thomas B. Adam, John Glaister, William M'Alister, Charles Pinkerton.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Fellows on July 31:—

Bright, George Charles, M.D. Oxford, Cannes, France.
Sparks, Edward Isaac, M.B. Oxford, Crewkerne.

The following gentlemen were admitted Members on the same day:—

Lush, William George Vawdrey, M.D. London, Weymouth.
Sharkey, Seymour John, M.B. Oxford, St. Thomas's Hospital, S.E.
Simon, Robert Michael, M.B. Cambridge, Manchester.

The following candidates for the College Licence, having conformed to the by-laws and regulations, and passed the required examinations, were granted licences to practise physic at the meeting of the College on July 31:—

Ashe, William Percy, 20, Linden-gardens, W.
Bullock, Charles, St. Bartholomew's Hospital, E.C.
Burwash, Henry John, 144, Kennington-road, S.E.
Chamberlain, Edward Twyford, Southsea.
Coles, Donald Alexander, St. Bartholomew's Hospital, E.C.
Dale, Frederic, York.
Davies, Hugh Edward, University Hospital, W.C.
Evans, Arthur Llewellyn, University Hospital, W.C.
Francis, William, 21, Huntley-street, W.C.
Freeman, William Thomas, Burnham.
Gibbes, Heneage, 23, Oberstein-road, S.W.
Goyder, Charles McIvor, Infirmary, Newcastle-on-Tyne.
Gurd, David Frazer, 78, Lambeth-road, S.E.
Hassan, Syed, 18, Bedford-place, W.C.
Henderson, Cecil, Clifton.
Hill, Charles Birnie, University Hospital, W.C.
Lewis, John George Stephen, 1, Windsor-road, Ealing, W.
Lunn, John Reuben, Children's Hospital, Shadwell, E.
Macdonald, George Alexander, Hull.
McMunn, James, 42, Gower-street, W.C.
Nicholson, James Edward, St. Bartholomew's Hospital, E.C.
Palmer, William Pitt, Ashill, Ilminster.
Patterson, George Henry, Brighton.
Pierson, Alfred Henry, 21, Blessington-road, Lee, S.E.
Price, Edward Morris, 24, York-road, Leamington-park, W.
Sykes, William Ainley, Golcar, Huddersfield.
White, Richard Watts, Guy's Hospital, S.E.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having undergone the necessary examinations for the diploma were admitted Members of the College at a meeting of the Court of Examiners on the 30th ult., viz.:—

Banks, William, Falmouth, student of University College Hospital.
Butler, H. P., Gipsy-hill, of St. Thomas's Hospital.
Clark, W. T. M., Twickenham, of St. Bartholomew's Hospital.
Cronk, H. G., Sevenoaks, of St. Bartholomew's Hospital.
Graves, T. W., L.S.A., Leominster, of King's College Hospital.
Hardy, H. L. P., Castle-street, W.C., of the London Hospital.
Howard, Henry, B.A. Cantab., Cambridge, of St. Bartholomew's Hospital.
Lawton, J. W., Torquay, of the London Hospital.
Lindeman, S. H., L.S.A., Hammersmith, of St. Bartholomew's Hospital.
Read, Mabyn, B.A. Cantab., Falmouth, of St. Bartholomew's Hospital.
Ross, Donald, Peshawur, E.I., of St. Bartholomew's Hospital.
Walker, H. E., L.S.A., Corwen, N. Wales, of Guy's Hospital.
Williams, P. St. G., Compton-road, N., of Guy's Hospital.
Williams, W. R., Ruthin, N. Wales, of St. George's Hospital.
Wright, H. E., Edwardstone, Suffolk, of Guy's Hospital.
Yate, H. W., Godalming, of St. Mary's Hospital.

Four candidates were rejected. The following gentlemen were admitted on the 31st ult., viz.:—

Adam, C. D., St. Peter's-park, W., student of St. Mary's Hospital.
Alden, E. W., L.S.A., Oxford, of the Middlesex Hospital.
Allnutt, John, Dartmouth, of the Manchester School.
Bentham, E. C., Barbadoes, of University College Hospital.
Elliot, F. J., Paignton, Devon, of Guy's Hospital.
Fischer, Charles, M.D. Würzburg, Bloomsbury-square, of the Berlin and Würzburg Schools.

Gimlette, T. D., Southsea, student of St. Thomas's Hospital.
Hall, Samuel, B.A. Cantab., Whaley Bridge, of St. Bartholomew's Hospital.

Havell, C. G., Reading, of St. Mary's Hospital.
Higson, James, L.S.A., Blackburn, of St. Bartholomew's Hospital.
Jago, E. O., Plympton, Devon, of Guy's Hospital.
Lillies, Herbert, Chudleigh, Devon, of St. Bartholomew's Hospital.
Mark, L. P., Queen Anne-street, of St. Bartholomew's Hospital.
Norman, W. A., Dulwich, of St. Bartholomew's Hospital.
Scott, Alfred, Brighton, of Guy's Hospital.
Sweeting, R. D. R., Clapham-park, of the London Hospital.
Tait, E. S., Highbury-park, of St. Bartholomew's Hospital.
Watts, E. C., Bernard-street, W. C., of King's College Hospital.
Webb, W. S., St. George's-road, S.W., of St. George's Hospital.
Wyatt, W. T., B.A. Oxon., Regent's-park-road, of St. Bartholomew's Hospital.

Of the 223 candidates examined in Surgery, the total number of rejections amounted to seventy-one, being nearly one-third of the number examined. With this meeting the examinations of the present session were brought to a close.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 31:—

Bowe, Francis, 29, Great Percy-street, W.C.
Dartnell, William Abraham, Sutton Coldfield.
Hitch, Frederick, Bromley-by-Bow.
Jones, Thomas, Penderd, Cardiganshire.
Price, Edward Morris, York-road, Warrington-park, Acton.
Rudd, Charles Frederick, Petherton-road, Highbury-new-park.
Smith, Ernest Barratt, St. John-street, Berkeley-square.
Smith, Henry, Plumstead, Kent.
Walker, John Sydenham, 3, Adelphi-terrace, W.C.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Cooper, Walter, St. Bartholomew's Hospital.
Grigg, William Henry, London Hospital.
Jay, Melville Richard Hindmarsh, St. Thomas's Hospital.
Tripp, Charles Llewellyn, St. Bartholomew's Hospital.
Vachell, Edward Shearman, London Hospital.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

LAKING, FRANCIS HENRY, M.D.—To be Surgeon-Apothecary in ordinary to her Majesty, in the room of Claudius Francis du Pasquier, resigned; also to be Apothecary in ordinary to her Majesty's Household, in the room of Claudius Francis du Pasquier and Francis Henry Laking, M.D. (jointly), resigned.

NAVAL, MILITARY, &c., APPOINTMENTS.

MEDICAL DEPARTMENT.—Deputy Surgeon-General William Godfrey Watt to be Surgeon-General; Deputy Surgeon-General Thomas Connor O'Leary, M.B., from half-pay to be Deputy Surgeon-General; Surgeon-Major George Pain to be Deputy Surgeon-General; Surgeon-Major Henry Cole Peppin retires upon temporary half-pay.

BIRTHS.

ALLEN.—On July 2, at Sehere, Central India, the wife of Surgeon-Major W. E. Allen, F.R.C.S. Eng., of a daughter.
BATTERBURY.—On July 31, at Berkhamstead, Herts, the wife of R. L. Batterbury, M.B. Lond., of a son.
FAUSSET.—On July 31, at Tamworth, the wife of Herbert J. Fausset, M.D., of a son.
HARRIS.—On July 28, at Penlene House, Falmouth, the wife of Arthur B. Harris, M.D., of a son.
IRONSIDE.—On August 1, at 8, Highbury New-park, the wife of Robert Adrian Ironside, M.B., of a son.
MACSWINNEY.—On July 30, at Westhall House, Brook Green, the wife of G. H. MacSwinney, M.D., of a daughter.
PHILLIPS.—On July 29, at Albion Place, Reading, Berks, the wife of H. Heygate Phillips, M.D., of a daughter.
PHILLIPS.—On July 29, at Broadwater House, Southend, Essex, the wife of Edward E. Phillips, L.R.C.P., M.R.C.S., of a daughter.
THOMPSON.—On August 1, at 9, Cranley-place, South Kensington, the wife of Reginald E. Thompson, M.D., of a son.
WELLER.—On July 31, at Westonzoyland, Bridgwater, the wife of John Weller, M.R.C.S., L.S.A., of a son.
WYLIE.—On July 23, at Skipton, the wife of William Wylie, M.D., of a son.

MARRIAGES.

DRAKE-COURTNEY.—On July 29, at Winchester, A. J. Drake, L.R.C.P. Lond., of Stratford, Essex, to Emily, only surviving daughter of the late William Courtney, of Sparsholt, Hants.
FAIRBANK-WOODCOCK.—On July 31, at the parish church, Wigan, William Fairbank, M.R.C.S.E., of Burnham, Bucks, to Caroline Florence, youngest daughter of the late John Woodcock, The Elms, Wigan.
JEPSON-GILLIAT.—On July 31, at Leeds, Edward Jepson, M.R.C.S., of Durham, to Jessie Maria, youngest daughter of the late George Gilliat, Esq., of Horncastle.

MACKENZIE-DULLEY.—On July 31, at Wellingborough, Stephen Mackenzie, M.D., of 24, Finsbury-square, third son of the late Stephen Mackenzie, of Leytonstone, to Helen, youngest daughter of Benjamin Dulley, of Brooklands, Wellingborough.

MILLER-RICE.—On August 6, at St. Michael's, Wood-green, James Miller, M.D., of 1, Great Percy-street, King's-cross-road, to Elizabeth, only daughter of the late William Rice, Esq., of Southwark.

NORTON-ADAMS.—On July 30, at Earsham, Norfolk, Ritchie Robinson Norton, M.R.C.S. and L.R.C.P., of Tottenham, Middlesex, son of H. Norton, Esq., of Carmarthen, to Lucie de Bellin, second daughter of E. B. Adams, Esq., of Bungay St. Mary, Suffolk.

SOLLY-ROYLE.—On August 1, at Holy Trinity Church, Paddington, Richard Harrison, third surviving son of the late Samuel Solly, F.R.S., to Annette Jane, only daughter of the late John Forbes Royle, M.D., F.R.S., of the Hon. East Indian Company's Service.

TORRENS-RILEY.—On July 23, at St. Peter's, Eaton-square, Henry Calverly Torrens, only son of William McCullagh Torrens, M.P., to Juliette, eldest daughter of James Riley, L.R.C.P. Edin., of 131, St. George's-road, South Belgravia.

WRIXON-HARRIES.—On July 31, at All Saints', Gordon-square, John Wrixon, M.R.C.S., of Sarratt, Herts, to Helen, youngest daughter of the late Lieutenant Edward Thornborough Harries, R.N., of St. Mawes, Cornwall.

DEATHS.

BROWN, CATHARINE, wife of the Rev. Principal Brown, D.D., and third daughter of the late William Dyce, M.D. Aber., at 104, Crown-street, Aberdeen, on July 30.

DAVOREN, Dr. LUCIUS, at Bogota, United States of Colombia, on May 27, aged 85.

ELLIOTT, JOHN, A.M., M.B., at his residence, Cathedral-square, Waterford, on August 2, aged 76.

FOSTER, JAMES MURRAY, F.R.C.P., etc., late of Assam, E.I., Lieut. 5th D.R. Volunteers, at Collumpton, Devon, on August 2.

GROVE, SARA FANNY, eldest daughter of John Grove, M.D., of Spring Grove, Hampton, at the Crypt Grammar School, Gloucester (the house of her brother-in-law), on August 4.

HODGENS, FRANCIS, second son of Frances Harriett and Robt. H. Lloyd, M.D., of Kennington, at Sandown, Isle of Wight, on July 26, aged 2½ months.

WILLIAMSON, MARTHA TAYLOR, widow of James Williamson, M.D., formerly of the H.E.I.C.S., Bengal, at her residence, 2, Priory-parade, Cheltenham, on August 4, aged 80.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Junior Resident Medical Officer. Candidates must possess a medical or surgical qualification from one of the examining boards of the United Kingdom. Appointment for six months only, but holder eligible for re-election. Board and residence provided in the Hospital. Testimonials on or before Tuesday, August 19, to James D. Blyth, Secretary.

NORTHAMPTON GENERAL INFIRMARY.—Physician. Candidates must be Doctors of Medicine of one of the universities of the United Kingdom, and Fellow or Member of the Royal College of Physicians of London, and not under twenty-five years of age. Applications and diplomas, accompanied by testimonials of professional ability, to the Secretary, on or before August 26.

SHEFFIELD GENERAL INFIRMARY.—House-Surgeon and Assistant House-Surgeon. Candidates for these appointments must be Members of one of the Royal Colleges of Surgeons of the United Kingdom, or Licentiates of the Faculty of Physicians and Surgeons of Glasgow, also Licentiates of the Apothecaries' Company, or Licentiates of the Royal College of Physicians of London, and on the "Medical Register." Applications, with testimonials, to the Secretary, on or before August 16.

SUSSEX COUNTY HOSPITAL.—House-Surgeon. Candidates must be fellows or members of one of the Royal Colleges of Surgeons of the United Kingdom, and either Licentiates of the College of Physicians or Licentiates of the Society of Apothecaries of London; duly registered under the Medical Acts; unmarried, and under thirty years of age. Diplomas and testimonials to the Secretary at the Hospital, on or before August 18.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATION.

St. Columb Major Union.—Mr. William Moorman has resigned the Sixth District: area 12,643 acres; population 1633; salary £23 per annum.

APPOINTMENTS.

Birmingham Parish.—Robert Blake McVittie, L.R.C.S. Ire., M.D. Queen's Univ. Ire., Assistant Medical Officer and Dispenser at the Workhouse.

Bowm Union.—Thomas Blasson, M.R.C.S. Eng., L.S.A. Lond., to the Billingborough District.

Hompstead Parish.—Frederick Adolphus Hill, M.R.C.S. Eng., L.R.C.P. Lond., M.D. Brussels, to the Kilburn District.

Glanford Brigg Union.—Roger Portington Goodworth, M.R.C.S. Eng., L.R.C.P. Edin., L.S.A. Lond., to the Glanford Brigg District.

Huddersfield Union.—Robert Douglas, M.B. and C.M. Glasg., to the New Mill District.

Manchester Township.—John Henry Pettinger, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A. Lond., to be Assistant Medical Officer at the Crumpsall Workhouse.

Melksham Union.—William Ingram Keir, L.R.C.P. and L.R.C.S. Edin., to the Fourth and Fifth Districts.

Plomesgate Union.—Maurice Edward Ling, M.R.C.S. Eng. and L.S.A. Lond., to the Saxmondham District.

Tendring Union.—William George Filey, M.R.C.S. Eng. L.S.A. Lond., to the Seventh District.

Tenterden Union.—Arthur Alexander Blakiston, M.R.C.S. Eng., L.S.A. Lond., to the Biddenden District.

Isle of Thanet Union.—Edward Alexander White, M.D., M.C., and Lic. in Midwifery, Dublin, to the Margate District.

Mitford and Launditch Union.—Samuel Hanson Wheatecroft, M.R.C.S. Eng., L.S.A. Lond., to the Fransham District.

Woodbridge Union.—Albert John Owen, M.R.C.S. Eng., to the Workhouse and Woodbridge District.

DR. CASSELLS, of Glasgow, has been unanimously elected by the Société Royale des Sciences Médicales et Naturelles de Bruxelles a Corresponding Member of that Society.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At special examinations of the College held on Tuesday and Wednesday, July 29 and 30, the licence to practise medicine was granted to James Hamilton Nicholas and Robert Peel, M.R.C.S. Eng., 1861.

EPSOM COLLEGE.—At the June matriculation examination at the University of London, seventeen of the Epsom boys passed—five in honours, ten in the first division, and two in the second division. Mr. W. J. Bradford, a foundation scholar, was sixth in the honours list.

HEROIC OBSTETRICS.—A Western physician in attendance upon a confinement case which terminated in an obstinate and dangerous hæmorrhage, after exhausting every means at hand to arrest the flow (he had neither ergot, nor ice, nor brandy, nor syringe, nor any form of hæmostatic), seized the poker, and, heating it red-hot, cauterised the spinal region over a surface of about four inches square. The uterus contracted at once, expelling the doctor's hand. The hæmorrhage ceased and did not reappear. The patient's life was barely saved.—*Boston Med. Jour.*, June 12.

THE APOTHECARIES' HALL, DUBLIN.—At the annual meeting of the General Council of the Apothecaries' Hall of Ireland, convened by authority of the Act of Incorporation on Friday, August 1, the following members were elected as office-bearers for the ensuing year:—*Governor*: John Evans, Esq. *Deputy-Governor*: Edward H. Bolland, Esq. *Court of Directors and Examiners*: Thomas Collins, Arthur Harvey, Charles Holmes, Charles H. Leet, Charles F. Moore, Robert Montgomery, Henry P. Nolan, Jerome O'Flaherty, Edward J. O'Neill, Sir George B. Owens, John Ryan, James Shaw, George Wyse, Esqs. *Examiners in Arts*: Edward W. Collins, M.D. Univ. Dub., Arthur Wilson, B.A. Sch. Univ. Dub. *Representative on the General Medical Council*: Charles H. Leet, M.D.

BERLIN UNIVERSITY STUDENTS.—In the summer session there have been 2886 matriculated students, 705 of the number being new students. Of the 2886, 932 were students in law, 412 in medicine, 166 in theology, and 1136 in philosophy. Of the 412 medical students, 344 were Prussians, 23 from other parts of the empire, and 2 from Austria. As showing the steady increase of the Medical Faculty, it may be stated that while the number in this summer session was 412, it was 346 in the same session in 1878, and 297 in 1877.—*Berlin Klin. Woch.*, June 30.

GERMAN STATISTICS OF OLD AGE.—An officer of the Austrian Statistical Department, it is stated, has been collecting some curious facts, purporting to show the comparative longevity of several parts of Europe. Among a variety of other statements he asserts that there are 12,831 persons over ninety years of age throughout the whole of Europe, of which number 6203 are women. In Italy, again, female life is superior to that of men, there being in that country 241 women over 100 years of age, and only 161 men who have attained to three figures. Some allowance must of course be made for the preponderance of women in the population generally, but when this has been done the female sex will still show the best average of long life, if those figures are accurate. In Hungary, on the contrary, there are more old men than old women, notwithstanding that in that country the females preponderate, though not to the same extent as in Italy. Austria, it is stated, has 100 women who are over a century old, while only 86 men come under the same heading. The figures given seem to demonstrate that Germans are considerably longer lived than Slavs. Among the Germans of Upper Austria and Salzburg there are 11½ per cent. of this population who come under the category of old people, while among the Slavs of Galicia the percentage is but 4.

INGROWING TOE-NAIL.—Dr. McEvoy strongly recommends the employment in this of the ordinary sponge-tent. A small wedge-shaped piece is cut off and inserted under the in-grown part of the nail as far as possible. The size of the sponge is increased about every third day, and if there is foetid discharge it is dipped in carbolic oil.—*Louisville Med. News*, July 5.

THE PARIS MEDICAL NIGHT SERVICE.—Dr. Passant reports that during the quarter ending June 30 there were 1156 visits paid at night, 375 ($\frac{1}{3}$) to men, 577 ($\frac{1}{2}$) to women, and 205 ($\frac{1}{5}$) to children—the mean number being 12 per night. There were 265 more visits paid than in the corresponding quarter for 1878. Of these visits, 107 were paid on account of angina and croup, 184 for affections of the heart and respiratory organs, 133 for affections of the abdomen, 19 for strangulated hernia, 12 for retention of urine, 156 for uterine disease, uterine hæmorrhage, abortion, and delivery, 296 for affections of the brain and nervous system, 45 for external or internal hæmorrhage, 50 for “eruptive affections,” and 96 for accidents. In 24 cases also death had occurred before the arrival of the medical attendant.—*Gaz. des Hôp.*, July 19.

HOW TO DELAY THE USE OF SPECTACLES.—Dr. Cheatham observes in the *Louisville Medical News*, June 14, that until of late he had always advised the use of spectacles in presbyopia as soon as their want is perceived, but he now employs the sulphate of eserine, which stimulates the ciliary muscle and in this way assists accommodation, so that the use of glasses may be delayed for several years. He puts into each eye, at bedtime (or indeed at any time, as the artificial myopia which it induces soon passes off), one drop of a solution of a grain of eserine in an ounce of water. Besides its employment in glaucoma and inflammation of the eye and in presbyopia, he has also found eserine very useful in asthenopia depending upon oversightedness and weakness of accommodation—the latter the result of overwork, general debility, diphtheria, etc.

THE EUCALYPTUS.—The Russian Prince Troubetzkoss—the distinguished botanist and horticulturist whose garden of acclimatation near Lake Maggiore enjoys a European reputation—has addressed a letter to an Italian journal in consequence of a discussion which took place in the Italian Parliament on the cultivation of the eucalyptus. Among other interesting observations, he states that during the last twelve years he has cultivated forty-five varieties of this tree, some of which were exhibited and received prizes at the late Exposition Internationale. After minute examination of their respective qualities, the Prince gives the preference to the species *amygdalina*, which he was the first to import from Australia. This he does on the following grounds:—1. Its rapid and extraordinary development: trees which were only planted eight years ago having attained a height of seventy feet and a girth of four and a half feet. 2. Its superior hygienic properties, containing as it does principles four times more powerful than the *globulus* species. 3. Its great hardness, which guarantees it against attacks of insects, and renders it eminently suitable for ship-building. 4. The adaptability of its bark, which can be utilised in a great variety of industries. 5. It is suitable for all soils, growing equally well on dry and wet soils, and resisting the effects of winds and variable temperatures. According to the *New York Herald*, the Prince has proposed to the English Government to make plantations of this species of eucalyptus in the island of Cyprus.—*Union Méd.*, July 10.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon*.

M.D.—We fear that custom has more to do with these things than anything else. We shall have something by-and-by to say on the whole subject.

M. de R.—Can any of your readers inform me how much blindness in asylums is attributable to small-pox and how much to diseases supposed to be due to vaccination?

Dr. Hewston P.—Yes; Dr. Bennet Dowler, a physician and physiologist in New Orleans, where he carried on a practice many years, began there, in March, 1854, the *Medical and Surgical Journal*. He won a wide reputation for his experiments upon the human body soon after death, the results of which were published in a series of essays in 1843-44.

Midwifery Nurses and the St. Pancras Guardians.—The Guardians of St. Pancras advertised in four newspapers for a midwifery nurse, without receiving a single application for the appointment; and they have applied to the Local Government Board for sanction to increase the salary £5 a year. There were 220 births in the workhouse during the past twelve months.

The Gothenburg System.—The Lodge of the Supreme Court of Sweden, writing recently to the Secretary of the Howard Association, London, remarks—“The Gothenburg system was introduced into Stockholm in October, 1877. It is progressing most favourably. All the police officials of this metropolis are of opinion that it has exercised a very beneficial influence on the public morality. Cases of drunkenness are not nearly so frequent as previously.”

A Crucial Test of Civilisation.—We borrow from our contemporary the *Pharmaceutical Journal* the interesting information that, “according to a writer in the *Chicago Pharmacist*,” the United States Government recently applied to the German Government for information as to the number of patent medicines and the extent to which they were sold in Germany; and in reply were politely told that as Germany was now a civilised country patent medicines had no existence in it!

The National Training School for Cookery.—The Committee, in the annual report, lately issued, express the hope that the knowledge of cookery would be compulsory on all teachers, and they regret that the public were not more interested in the work of the school. It was of importance that cooking should be properly taught to those who were engaged in the hospitals, and it was a cause of some disappointment that the scheme which this institution had in view did not develop itself faster. The total receipts from fees were £1705, as against £2065 for the previous year.

Flower Farming.—Dr. Schomburgk, in his “Report on the Progress and Condition of the Botanic Garden and Government Plantations” of Adelaide, South Australia, for the year 1878, speaks favourably of the introduction of flower farming for the purposes of perfumery, and gives some illustrations of the importance of this use of flowers. British India and Europe, he states, consume about 150,000 gallons of handkerchief perfume yearly; the English revenue from eau-de-Cologne alone is about £6000 a year; and the total revenue from imported perfumes is estimated at about £40,000 a year. One great perfume distillery at Cannes is said to use yearly about 100,000 lbs. of acacia flowers, 140,000 lbs. of rose-flower leaves, 32,000 lbs. of jasmine blossoms, and 20,000 lbs. of tuberose, besides many other sweet herbs. Dr. Schomburgk thinks that the production of the raw material for extracting the fragrant essential oils will very likely prove a successful undertaking in the genial climate of South Australia; but that the further manufacture of the perfumes would be more perfectly done at home than in the colony.

Clinical Examinations.—At the pass examinations for the diploma of membership of the Royal College of Surgeons, which was brought to a close last week, the following cases, some of them of great interest, were submitted to the candidates; they were selected from St. Bartholomew's, St. Thomas's, St. George's, University College, Guy's, the Charing-cross, and Westminster Hospitals, viz.:—Hydrocele, with enlarged testicle. Necrosis of external condyle of humerus, with secondary affection of elbow-joint. Cyst in lower lip; inflammation of the conjunctiva. Fibrous tumours on various parts of the body. Hæmatoma of the cheek. Strumous disease of both testicles. Specific eruption on the skin. Strumous abscess over external ankle. Tumour in the calf, with abscess in groin. Enlargement of both testicles. Abscess near the lower jaw after extraction of tooth. Orchitis. Senile gangrene of fingers. Chronic hypertrophy, with induration of the skin of the leg. Double hydrocele. Tumours, probably gummatous, on various parts of the body. Tumour in calf. Lupus of the face. Opacity of cornea, with granular lid. Induration of testicle and cord (syphilitic). Nævus of upper lip. Old fracture of the tibia and fibula, with dislocation of foot. Strumous disease of both testicles. Compound dislocation of thumb. Hydrocele. Club-feet. Inflammation of shoulder-joint. Necrosis of skull. Hæmorrhoids. Gumma on the tongue. Old compound fracture of the skull. Compound dislocation of the thumb. Necrosis of superior maxillary bone from phosphorus. Hydrocele of cord. Syphilitic ulcer of the tongue. Undescended testicle, with hydrocele on the other side. Strumous disease of the knee-joint. Ingrowing nail. Opacity of cornea. Strumous disease of lower jaw and elbow. Nævus of upper lip. Gummata. Double hydrocele. Alveolar abscess. Iritis. Operation for genu valgum. Inflammation of the lymphatics of the forearm and arm. Strumous testis. Enlarged inguinal glands. Ankylosis of shoulder. Inflammation of wrist. Ulcer on leg. Secondary syphilis. Enlargement of popliteal bursa. Inflamed testicle. Nævus inside the cheek. Lymphadenoma. Syphilitic necrosis of skull. Syphilitic iritis. Varicocele. Strumous disease of testicle. Swelled testicle. Abscess below the jaw. Molluscum. Tumour in the groin, probably omental. Several metropolitan and provincial Fellows were admitted by direction of the President, Mr. Luther Holden, who most courteously admitted all desirous of witnessing the mode of conducting the examinations; amongst them were also Dr. William Darling, F.R.C.S. Eng., Professor of Anatomy in the University of New York, and Dr. A. B. Palmer, of the University of Michigan, U.S.

A Nuisance Restrained.—The appeal from the Master of the Rolls in the case of a well-known physician in Wimpole-street, and Bridgman, the confectioner in Wigmore-street, was recently heard, and judgment was given in favour of the plaintiff. It will be remembered that the defendant had two large mortars fixed in the brickwork against his kitchen wall, the mortars being worked by heavy iron pestles. This kitchen wall also formed the boundary wall of the garden behind the plaintiff's house. These pestles and mortars had been in constant use on the defendant's premises for upwards of twenty years. The plaintiff having lately built out a consulting-room abutting on the boundary wall of his garden, found the noise and vibration in the room caused by the use of the pestles so great, that he brought this action to restrain the nuisance. The Court below held that the easement or right claimed by the defendant was not one which could be acquired under the statute, or by prescription, and granted an injunction. The defendant appealed; but their lordships dismissed the appeal with costs.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Revue Médicale Française et Etrangère—El Siglo Médico—Louisville Medical News—Edinburgh Medical Journal—American Journal of the Medical Sciences—Veterinarian—Obstetrical Journal—Monthly Homoeopathic Review—Indian Medical Gazette—Glasgow Medical Journal—Vaccination Inquirer—American Bookseller—Centralblatt für Gynäkologie—Archives Générales de Médecine—Students' Journal—Analyst—Glasgow Herald—Practitioner.

BOOKS AND PAMPHLETS RECEIVED—

Dr. Roth, Medical and other Notes collected on a Holiday Tour to Arcachon, Biarritz, Pau, and the Principal Watering-places in the Pyrenees—Dr. E. J. Waring, Bibliotheca Therapeutica, vols. i. and ii.—Statistical Tables of the Patients under Treatment in the Wards of St. Bartholomew's Hospital during 1878—Del Processo Morboso del Colera Asiatico—D. J. Hamilton, M.B., On Acute Bronchitis; On the Process of Healing.

COMMUNICATIONS have been received from—

Mr. M. BECHER, London; Mr. T. M. STONE, London; THE REGISTRAR-GENERAL FOR ENGLAND; THE REGISTRAR-GENERAL FOR SCOTLAND; THE REGISTRAR-GENERAL FOR IRELAND; Dr. T. W. GRIMSHAW, Dublin; Dr. R. J. DUNGLISON, Philadelphia; Mr. C. J. WRIGHT, Leeds; MESSRS. SAVORY AND MOORE, London; THE SECRETARY OF THE ARMY MEDICAL SCHOOL, Netley; Dr. S. K. COTTER, Ballincollig; Dr. F. DE CHAUMONT, Netley; MESSRS. MAY-DAVIS and Co., Westminster; Dr. RICHARD NEALE, London; Dr. NORMAN KERR, London; Dr. CLAUD MUIRHEAD, Edinburgh; Mr. C. HOLTHOUSE, London; Mr. HENRY PURLE, London; THE DEAN OF THE UNIVERSITY COLLEGE HOSPITAL, London; Dr. H. COURTENAY FOX, London; THE CLERK OF THE SENATE OF THE UNIVERSITY OF GLASGOW; THE REGISTRAR OF APOTHECARIES' HALL, London; Mr. G. BROWN, London; THE REGISTRAR OF THE UNIVERSITY OF LONDON; Miss E. NEWUS, London; Prof. J. G. M'KENDRICK, Glasgow; Dr. J. W. MOORE, Dublin; Dr. B. NICHOLSON, London; THE SECRETARY OF THE RELIGIOUS TRACT SOCIETY, London; THE SECRETARY OF THE NATIONAL DENTAL HOSPITAL AND COLLEGE, London; THE SECRETARY OF THE ROYAL MEDICAL BENEVOLENT COLLEGE, Epsom; Dr. CASSELL, Glasgow; THE PRESS AND LITERARY AGENCY, Chelmsford; THE SECRETARY OF THE ROYAL COLLEGE OF PHYSICIANS, London; Dr. C. M. TIDY, London; THE EDITOR OF "IRON"; Dr. G. HARLBY, London; Mr. J. W. PALMER, Hanwell; Dr. ANDREW CLARK, London; Mr. J. CHATTO, London; Dr. DRUITT, London.

APPOINTMENTS FOR THE WEEK.

August 9. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

11. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

12. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

13. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

14. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

15. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 2, 1879.

BIRTHS.

Births of Boys, 1206; Girls, 1190; Total, 2396.
Average of 10 corresponding years 1869-78, 2266·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	706	643	1349
Average of the ten years 1869-78	815·5	754·8	1570·3
Average corrected to increased population ... ..	...	...	1680
Deaths of people aged 80 and upwards ... ..	...	...	37

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Dianthia
West	561359	1	12	8	...	6	...	2	1	5
North	751729	1	13	11	1	11	...	2	2	11
Central	334369	...	10	2	1	1	...	1	...	2
East	639111	...	29	16	2	12	...	...	...	13
South	967692	1	13	18	1	12	...	4	1	15
Total	3254260	3	77	55	5	42	...	9	4	46

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	29·850 in.
Mean temperature ... ..	...	...	...	...	64·0°
Highest point of thermometer ... ..	...	...	...	...	80·6°
Lowest point of thermometer ... ..	...	...	...	...	49·0°
Mean dew-point temperature ... ..	...	...	...	...	57·6°
General direction of wind ... ..	...	...	...	...	S.W.
Whole amount of rain in the week ... ..	...	...	...	...	0·26 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 2, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Aug. 2.	Deaths Registered during the week ending Aug. 2.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		In Inches.	In centimetres.
London	3620868	48·0	2396	1349	81·6	49·2	64·0	17·78	0·23	0·66
Brighton	105608	44·9	38	35	74·5	50·3	62·2	16·78	0·42	1·07
Portsmouth	131821	29·4	77	30	...	...	...	...	...	...
Norwich	85222	11·4	58	26	80·5	53·0	67·5	19·72	0·28	0·71
Plymouth	74293	53·3	42	30	74·0	51·5	59·5	15·28	0·76	1·93
Bristol	209947	47·2	154	55	79·3	50·4	62·2	16·78	1·59	4·04
Wolverhampton	75100	22·1	52	29	73·2	45·9	59·0	15·00	0·84	2·13
Birmingham	383884	46·3	297	129	...	...	...	...	...	...
Leicester	125622	39·3	90	38	...	...	...	...	...	...
Nottingham	169396	17·0	131	50	83·1	45·1	62·1	16·73	0·40	1·02
Liverpool	538333	103·3	388	167	73·1	51·6	58·7	14·83	0·56	1·42
Manchester	361819	84·3	262	134	...	...	...	...	...	...
Salford	177849	34·4	131	65	...	...	...	...	...	...
Oldham	111318	23·9	62	45	...	...	...	...	...	...
Bradford	191046	26·5	109	64	74·4	50·4	60·6	15·90	0·46	1·17
Leeds	311860	14·5	193	100	75·0	48·0	61·0	16·11	0·51	1·30
Sheffield	297138	15·1	210	108	77·0	48·0	61·0	16·11	0·16	0·41
Hull	146347	40·3	116	50	...	...	...	...	...	...
Sunderland	114575	41·4	84	34	82·0	50·0	62·0	16·67	0·59	1·50
Newcastle-on-Tyne	146948	27·4	102	52	...	...	...	...	...	...
Edinburgh	226075	53·9	142	72	71·0	48·0	58·3	14·61	0·91	2·31
Glasgow	578156	95·8	335	174	68·5	51·0	59·9	15·50	1·06	2·69
Dublin	314666	31·3	153	138	73·0	40·7	57·5	14·17	0·37	0·94
Total of 23 Towns in United Kingdom	8502896	38·6	5622	2974	82·0	40·7	61·0	16·11	0·61	1·55

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·85 in. The highest reading was 30·00 in. on Monday at noon, and the lowest 29·68 in. on Friday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

FORTY-SEVENTH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION,
HELD IN CORK, AUGUST 5, 6, 7, AND 8, 1879.

ADDRESS DELIVERED AT THE
OPENING OF THE SECTION OF MEDICINE,

By ANDREW CLARK, M.D., F.R.C.P.,
Physician to the London Hospital; President of the Section.

It has been the practice of the previous occupants of this chair to open the proceedings of the Section by a general address. Usage has transfigured this practice into a rule, and now, with very limited time at our disposal and important subjects pressing for discussion and promising in manifold ways to repay it, I am constrained by the forces of custom and expectation to make sacrifice of some precious time at the shrine of this Procrustean tyranny.

When I examine the addresses of my predecessors, I find them occupied in setting forth the dignity of medicine, the greatness of her achievements, her increasing services to mankind, the spirit in which she is to be cultivated, and the self-sacrifice demanded of her cultivators. They are all stately hymns of praise. There is not in one of them a hint of imperfection or a thought of wrong. What completion, what perfection, what greatness has this Medicine! How good a thing it is to be numbered, however humbly, in her ranks! There we can rejoice in the thoughts of the furthering of knowledge and in doing of good. There our satisfactions need have no check from doubts, from reproaches, or from fears. There is our Utopia. Come let us extol and give thanks.

And who, understanding the difficulties, the responsibilities, and the anxieties of medicine, who, knowing her toils, her sacrifices, her triumphs, and her meagre rewards, would grudge her liberal tributes of grateful praise. No one with any pretensions to a just and generous mind. Surely not I. As her merits are beyond measurement, so let her praise be without stint. But there is another side to considerations of this kind, and it may not be forgotten without serious peril. Medicine cannot stand still. Changes go on within her, changes inseparable from her history go on around her, and they are not always either parallel or congruous. And yet, if medicine is to advance, they must be continuously readjusted and harmonised; left unadjusted from blindness, from indolence, or from calculations of self-interest, medicine must decline. Nothing in this matter contributes more to imperfect vision as well as to imperfect action than self-satisfaction. In professions, in individuals, and in peoples alike it is an obstacle to progress and a prelude to decay. He, therefore, who truly loves his profession will not fail to warn her of this peril, to remind her that she has defects to make good and errors to correct, and to show her that in the pursuit of an ever-widening ideal alone can she find the fulness of her knowledge and strength of her larger uses to the race and of her just honour among men.

In the medicine of these days there are many topics, both of polity and of practice, which urgently demand and would amply repay the fullest consideration and discussion. But on the present occasion neither will time nor circumstances permit the free handling of even one of them. I must content myself with merely touching upon a few of the more important, and with hoping that I may excite in minds abler than my own such an interest in their further consideration as will lead to their juster settlement.

There are three questions upon which I desire to offer reflections. They are the questions of medical education, of the present state of therapeutics, and of the prospects in this country of experimental inquiry.

Now, as respects this question of medical education, it seems to me to be in a gravely unsatisfactory condition, and to require the immediate and earnest attention of the profession. Jostled on the one side by quackery, and on the

other by science, it is failing in its true work of training students to be sound practitioners of the art of medicine. Medicine is an art, and its end is practice, and the worth or worthlessness of any system of education must be tried by the degree in which it helps or hinders this end.

Tried by this test, the present system of medical education is, for the following among other reasons, found wanting:—

1. That, whilst it has added to the curriculum and enlarged the range of examination, it has left the time for study the same. This is destructive of that thoroughness in learning which should be a prime object in education.

2. It has introduced into the curriculum, or it has left in it, subjects difficult to acquire, worthless as mental gymnastics, useless in practice, and speedily forgotten when acquired.

3. It makes no sufficient separation between the various stages of medical education; it permits the one to interfere with the other—the lowest with the highest, so that when the student should be in the wards studying disease and the effects of remedies he is somewhere else committing to memory botanical characters of plants or the complex formulæ of chemical compounds.

4. It does not enforce the regular attendance of students in the wards; it does not require him to take a personal share in the clinical work; and it does not insist upon a period of unencumbered practical study sufficient for the acquisition of that knowledge of disease and remedy which should never fail upon an emergency and be always ready for immediate use.

5. Its examinations are so constructed, or have acquired such a construction, that they determine the nature, character, and extent of the previous instruction, and that the student when he has passed them finds himself in possession of knowledge which he does not need, and lacking that which he should have acquired in the wards, and which, now leaving the hospital, he cannot afterwards obtain. Almost no future industry and almost no experience in private practice will ever fully compensate for defective clinical study and training in the hospital wards, when the mind is plastic, and the student learns disease as a child learns speech.

6. It sanctions imperfect and even vicious methods of teaching. The student is told, not taught. The teacher describes rather than demonstrates; and, instead of making the student follow him step by step in his methods of observing, collecting, comparing, testing, and recording facts, and of reasoning thereon, the teacher leaves them to be learned by being described, forgetful that they can be learned only by being practised.

7. Careless of the manner in which knowledge is acquired, and sceptical as to the permanent educational value of discipline, training, and habit, it makes examination the test of fitness, the answering of questions at intermittent periods an adequate guarantee of continuous practical work.

8. The main tendency, then, of the present scheme of medical education is to give students smatterings of scientific knowledge at the cost of that thorough knowledge of their art which is essential to its successful exercise.

It will doubtless be objected to any scheme proposed for remedying the defects and correcting the errors of the present system, that it will injuriously restrict the limits and degrade the character of medical education, and that it will hinder rather than help the development of scientific as opposed to empirical methods of inquiry. But such objections spring from misapprehension of the aims and end of science. Science is not a subject; it is not an object. It is merely a regulated method of inquiry in a certain attitude of mind into relative truth and its conditions, and is the same in its nature and its uses, whether dealing with the problems presented by sickness in man or with the problems presented by catastrophes in the crust of the earth.

There is a cant in science as well as in religion, and both are alike base and baleful. Surely nothing can be more unscientific than discursive dabbings in many subjects. Nothing can be more scientific than the training of the mind to habits of minute, careful, methodised observation and registration of the phenomena of disease. Nothing is more ignoble than ignorance of the calling which we profess to know and are trusted to exercise. I, for my part, shall continue to believe that the physician, in investigating the phenomena of disease and the laws which regulate their association, succession, and issues, may be as truly scientific, and may become as highly cultured, as any chemist in

speculating upon the constitution of organic radicals, or any astronomer in calculating the times and distances of unknown stars, or any natural philosopher who, from his inquiries into matter and force, propounds conclusions opposed to the ineradicable instincts of the human race.

I turn now for a few moments to the second question upon which I proposed to touch, that is, the present state of therapeutics.

When but a little while ago Sir William Hamilton asked quite seriously if the practice of medicine had made a single step in advance since the time of Hippocrates; when we hear that the leaders of medicine both here and abroad are sceptical of the curative influence of drugs upon disease; and when we know that experienced practitioners are divided in opinion as to the effects upon the body of the commonest medicines, we cannot doubt that this, the highest department of our art, and one of its chief ends, is in a backward and unsatisfactory condition, and demands, like the question of education, the serious consideration and action of the profession. Beyond the inherent difficulties of the subject, which are undoubtedly many and great, the reasons of this lie near at hand, and are not difficult to discover.

In the first place, although there are many and excellent books on the actions and uses of drugs, there does not exist, as far as I know, with one exception, any treatise on therapeutics in the full sense of that term; neither do I know of any physician of experience and authority who teaches the subject. What is taught in the schools is *materia medica*; and that is taught at a period in medical education when the natural history of diseases, which is the fundamental starting-point of therapeutics and the true criterion of therapeutical success is practically not known to the student. Of some forms of acute disease—of pneumonia, for example—we have trustworthy and almost sufficient knowledge; but of the natural history of most chronic diseases—of their course from first to last; of the modes in which the organism, uninfluenced by drugs, and favoured only by the conditions of health, deals with these maladies in their origin, in their modes of progression, in their influence upon other parts, and in their issues either in recovery or in death—we know almost nothing, and certainly not enough for the commonest purposes of therapeutic art.

In the third place, we have no trustworthy knowledge, and therefore no distinctive teachings, of the respective provinces and powers of nature and of art in bringing about recovery from disease.

In the fourth place, we have no exact information as to the conditions in which, when nature unaided fails to bring about recovery, we may employ the known physiological properties of drugs with any sure prospect of success. This is the province of physiological therapeutics, and in whatever quarter or from whatever point of view we examine it, there appears the richest promise of future discovery.

In phthisical patients attacked with bronchitis there is a condition of the bronchial mucous membrane fraught with peril, not only to the lung, but to the life of the patient. The membrane is congested, swollen, dry, and coated with a thin but tenacious and irritating secretion. This condition may continue for days, producing fever and paroxysms of ineffectual coughing, which exhausts the strength of the patient, and puts him in peril of hæmorrhage. In ordinary cases nature brings about relief by free secretion from the affected membrane. In the cases under consideration nature fails, and the problem is, how to induce this stage of free secretion, which our knowledge of the natural history of the malady assures us will bring speedy relief and safety to the patient. Here becomes available our knowledge of the physiological properties of drugs. There are several that will excite free secretion from the bronchial mucous membrane. There are, for example, ipecacuan and antimony. The latter is the better; and if we give a twenty-fifth of a grain of it every hour, the mucous membrane, after a dozen doses, will begin to secrete, the patient's cough will become looser, and he will cease from suffering and from peril.

In the fifth place, we have no accurate account of the phenomena, physiological, pathological, or chemical, which accompany the administration of remedies, the effect of which are in some degree certain, but the modes of action of which are utterly unknown. This is the province of empirical therapeutics, and one which would have speedily enlarged but for the checks which unhappily have been put

upon experimental investigation by the hysterical clamour of sickly-minded humanitarians.

In the sixth place, there exists an assumption which, in any general sense, is at once unproved and doubtful, that the physiological effects of drugs upon living textures or organs in a state of health are identical with the effects of the same drugs upon textures or organs in a state, and in almost any state, of disease.

In the seventh place, there is the almost absolute neglect of any comprehensive and connected cultivation of animal chemistry in its relation to pathological and therapeutic processes. And yet it is certain that chemical changes accompany, if they do not determine, the genesis, growth, development, retrogression, and recovery, not only of every pathological product, but of every pathological condition. Nor is it improbable that chemical changes due to chemical errors are the initiative and constituent factors of many diseases. Indeed, the problems presented by diabetes, acidity, lithiasis, oxaluria, gout, rheumatism, intra-vascular blood-clotting (inopexia), and fevers, require for their solution but a slight advance of our knowledge of the chemistry of nutritive metamorphosis. In rickets, it has been found that the bones and the tissues immediately investing them contain lactic acid; and it has been supposed, with some show of probability, that it is to the solvent action of this substance that the disappearance of mineral matters from the rachitic bone is due.

In the eighth place, there is the strange and fatalistic theory that diseases are immutable, and that the types of morbid action are for ever the same; that out of certain in the early history of the race and its environments, never to recur, diseases arose, were stereotyped, and have retained their primitive characters unto this day.

But to accept such a theory as this would be to make the better part of historical and scientific knowledge impossible, and to cast us back into the ages when observation, experiments, and reason were the slaves of authority and superstition. Undoubtedly there are affections, such as colics and catarrhs, which have been common to man, and which have retained their likeness from his birth until now. This, however, is but a fragment of the truth; and when one comes to examine with a critical understanding the history of the race, and the moral and physical agencies influencing it in its progress through the successive ages of the world, we are forced to admit that diseases have come and gone, that successive epochs have had their characteristic maladies, that different regions of the globe possessed their pathologies as well as their floras, and that the disorders of men took form and character and colour from the changing climates and civilisation in the midst of which he dwelt, and of which, in a cosmical sense, he formed a constituent part.

Indeed, from a theoretical point of view, all this must be so; nay, it is even demonstrable that it is so. Man, in his journey through time, has been witness to the most stupendous terrestrial revolutions; the lineaments of the globe have oftentimes changed; seas have taken the place of continents, and continents of seas; races of animals have arisen, have flourished, and have become extinct; arctic cold has been displaced by tropic heats; scorching droughts with endless rains; tribes and peoples and nations, with their varying barbarisms and civilisations, have passed across this mighty stage. Change has followed after change upon the earth, until now its physiognomy and its climate have become so transfigured that, if its earlier denizens were to revisit the scene, they would no longer recognise it as their primeval dwelling-place.

How then is it possible, in the midst of all these cosmical, terrestrial, and human changes, that the disorders and the diseases of man alone should remain unchanged? By what show of facts and arguments can this pathological immutability be explained and vindicated? By none, I think, capable of sustaining a just criticism. But what may be conceded to indefinite duration may be denied to the narrow age in which we live. Geological epochs may count for something in their influences upon the human constitution, but the span of modern civilisation for nothing. This position, also, I think, is untenable. We are living at a time, in conditions, and under influences when, with a carefully trained eye, we may see that the human organism is readjusting itself to its progressively varying environments. The man of to-day is not the man of two hundred years ago

The nervous system, cultivated in every direction, and strained and hurried by an intenser life, has assumed almost new relations to the other parts of the organism, altered the complexion of accustomed diseases, and engendered disordered states unknown to the literature of the past. The syphilis of Jean de Vigo and even of Collis is so little like the syphilis of these days, that the accuracy, and even the veracity, of those writers might not unwarrantably be questioned. There was a time when it was not; and its later history justifies the hope that a time will come when it will cease to be. The groups of nervous affections which cluster round an intensified physical self-consciousness were unknown even to Whytt, and yet they constitute a large and growing proportion of the troubles which afflict the more highly cultivated men and women of the present time.

In the increasing duration of the menstrual epoch, in the greater age into which powers of mental work are prolonged, in a slowly deepening intolerance of alcohol, in the steady growth of our comparatively new sense of the beauties of nature, in the expansion of our capacities for scientific inquiries and for abstract discussions, in our views of the foundations and force of ethical relationships, and in our perfect tolerance (signalised by some flagrant exceptions) of intellectual and religious freedom, we see evidences that the race is undergoing a constitutional change; and we know that this change must modify the diseases and the treatment of the diseases of mankind.

But I must hurry away from this attractive, although outlying, part of my subject, to say, in the ninth place, that another fertile source of failure in therapeutics is the absence of an adequate recognition of the enormous influence exerted upon disease and its treatment by all that is implied in the individuality of the patient—by hereditary temperament, education, habit, the prevailing attitude of mind to the future, and all the circumstances of the higher life. There are few principles in medicine, and, in this sense, it is certainly one among the most unprincipled of arts. Every case is a law to itself, and contains within itself the conditions for its own management. It is the quick perception of these conditions, and the ready and happy use of remedies for their control, which makes skill in therapeutics. Lastly, there lies a serious hindrance to therapeutic progress in a still prevailing looseness of therapeutic investigations, and in a painful want of accuracy in recording the results of these. One cannot review the therapeutic history of the last quarter of a century, without experiencing a feeling of shame, as well as of sorrow, for the pretentious and baseless statements with which it abounds. A few crude and ill-digested experiments upon animals, supplemented by some equally crude and undigested observations on man, tricked out in the phraseology of science, surrounded with much parade, devoid of accuracy, completeness, or strength, make up the substance of many of these scientific investigations; and their conclusions are committed to the profession, in words of sublime audacity, with as much confidence as if they were the conclusions mathematically demonstrable of chemistry and physics. The authors of such statements as those to which I allude are not merely intellectually, they are also morally, deficient; and, if a just criticism lived amongst us, they would be scourged into becoming silence. We long for the advent of another Socrates, who shall put these sciolists to a pitiless cross-examination, and prove to them out of their own mouths that they have nothing in them of the spirit of science, and know not even the true meaning of the name which they appropriate and desecrate.

And now, with a few more words upon the subject of experimental inquiry, I shall cease to trespass upon your indulgence.

I believe that it is to experiment upon animals, in some shape or another, that we owe the bulk of our recent gains in medicine; and that it is to experiment, aided by practical chemistry and physiology, that we shall have to look hereafter for our most substantial additions to the knowledge both of the nature and of the treatment of disease. "Its importance, indeed, cannot be overrated; for through its help we shall have often to look for the criterion of uncertain doctrines, the solution of unsettled problems, the organisation of fresh inquiries, the annexation of outlying truths, the discovery of unknown facts and laws." (Dr. Andrew Clark's Introductory Address, 1876.)

Undoubtedly experiment has also its other side; and dis-

regarding its inherent difficulties, which are neither few nor slight, it is beset with dangers which must be watched with a jealous eye, and guarded against with a firm hand. By the prestige of precision, often unmerited, which they carry with them, experiments sometimes cover the most flagrant errors, and give currency to false or inadequate generalisations. Even when every precaution has been taken to secure precision and accuracy in every particular, it cannot safely be inferred that the results of certain experiments upon animals will be identical with those which would happen in man submitted to like conditions. Nor, without other authority, would it be justifiable to use those results in the explanation of physiological, pathological, or therapeutical facts; for, however numerous may be the results of experiment, however important may seem to be their bearing upon the progress of science, they will be of no avail to medicine, and it will not be safe to use them in her service, until they have been filtered through the checks and counter-checks of clinical experience, and have responded to the tests and counter-tests of clinical trial.

Now, experiments cannot be performed upon animals without the infliction of suffering; and we, whose lives are spent in aiming at its relief, ought not to be indifferent to this inevitable and painful fact, nor regardless of the solemn responsibility which its existence imposes upon us. I rejoice to believe that we need not reproach ourselves for this sin, and that, as a body, we have never transgressed the limits set to our inquiries by the order of nature, the exigencies of human suffering, and the sanctions of wise and good men.

Three years ago a certain section of the public thought otherwise; and, by dint of clamorous outcries against our humanity and the circulation of accusations of cruelty either exaggerated or false, forced the Government into a hasty legislation, which, whilst it permitted the show, sacrificed much of the substance, of freedom in this matter. Since then, although crippled in every limb, inquiry has managed to limp along and to do some useful work. No experimental atrocities have been heard of, and no occasion has arisen to make men and women forget their loyalty to charity, to justice, and to truth. In these circumstances, whilst conforming in good faith to the conditions imposed upon us, we might justly have expected to be left to travel unmolested along our narrow and difficult way. But it is quite otherwise; and I have learned upon undoubted authority that means are being rapidly collected for a fresh crusade, that no quarter is to be given in the coming conflict, and that no peace will be concluded until the liberty of inquiry by experiments upon animals is unconditionally extinguished.

It is hard to understand the reasons of this passionate antagonism, and still harder to believe that it has no other foundation than the desire to protect the lower animals from unnecessary suffering. For, if this be true, why do our antagonists confine their warfare within such narrow limits? The infliction of suffering for ulterior ends everywhere manifest in nature, now adjusting the balance of nations or establishing the anatomies of peoples, pervades the whole structure and relations of civilised life. What is all the suffering inflicted by all the vivisectionists of all the world, in comparison with those hecatombs of suffering which political experimenters have inflicted upon mankind in their vain attempts to settle the question of the balance of power in Europe? Are the sufferings of men of less account than the sufferings of brutes? Is their blood less precious? Are the countless woes of countless human hearts to be reckoned but as dust in the balance against the wounds of guinea-pigs and frogs? Surely the love of knowledge is as pure and true a human desire as the love of sport; and, whilst the fruits of this die with the individual and his interests, the fruits of that live for ever in growing uses to the race.

If it be true, then, that we are again in peril of a fresh attack, and that the one object of it is to be the unconditional extinction of experiment upon animals, I trust that we shall not stand idly and timidly by whilst this great evil is being done. I trust that every member of our great profession, and every thoughtful man beyond its pale, will unite to make this cause their own, and will offer to threatenings of fresh legislation such an implacable opposition that the statute-book of England shall never again be sullied by penal enactments against the just liberties of knowledge. The highest heritage of humanity is in our keeping; all the past and all the future conspire to make us loyal to this sacred charge; and, at whatsoever cost, of whatsoever kind, we

must hand down the right and the freedom of inquiry unmortgaged to future generations.

And now, having occupied rather more than the sacred quarter of an hour, I shall no longer interpose between you and the important discussions which are before us. I shall content myself with expressing the hope that, each effacing himself and uniting together for the higher objects of this Association, our deliberations and discussions may issue in some advancement of knowledge and its still wider application to the uses of men.

ADDRESS IN SURGERY.

By WILLIAM S. SAVORY, M.B., F.R.C.S., F.R.S.,
Surgeon to and Lecturer on Surgery at St. Bartholomew's Hospital.

ON THE PREVENTION OF BLOOD-POISONING IN THE PRACTICE OF SURGERY.

WHEN honoured by the invitation of your Council to give this year the Address in Surgery, I had to consider on what subject I might venture to speak to you. I could not help regretting that one had not been chosen for me; I was embarrassed by the range of choice. Working as I am at surgery in general, there is no particular subject on which I am entitled to speak with especial authority; with any authority indeed beyond, or even equal to, that many of those whom I address can claim. But then, on reflection, I could not doubt that if the members of this Association had been called on to select a subject for this address, the majority at least would have chosen that which is, I think, not only in itself the first and largest in surgery, but also the one which of late years has occupied the attention of most surgeons far more than any other, and concerning which the most opposite opinions are entertained by those who have the fullest opportunity of studying it.

Need I say that I refer to the subject of blood-poisoning and its prevention? I think I am speaking advisedly when I call it the largest and the first; for it is not only an evil spread over the whole field of surgery—in what class of cases is its deadly presence unknown?—but it is, if not the sole one, almost beyond comparison the chief evil which waits upon the surgeon's own work. It seeks its quarry not only in disease and accident, though here might be found scope enough for its powers of destruction; but it hovers over every operation, and by its fell swoop can destroy the best work and fairest promise of the surgeon. Yes; truly it has been the scourge of surgery. Is it so still? Would I could say it was altogether a thing of the past—of history only; that we are able now to cast it out. No; I cannot state this. When will some successor of mine in this honourable but responsible position be able fairly to affirm so much? But this I may say, that of late a vast amount of the best work has been done in this direction; of work so worthy, that if the demon has not been altogether exorcised in its power of mischief, it has been so trodden under foot that now, when it moves among us, we are startled as by some strange thing. Let those who think my language overcharged look at the records of surgery in the last generation only, and in this they will see somewhat of the good which has been wrought—but a fraction of it; for it is only in our own time that anything like an accurate record has been kept of the number of lives thus destroyed. How many lives were so sacrificed in former times, no one can tell; for the nature of the mischief being then unknown, its fatal work was set down to the account of various other causes. It is only in time within the reach of many of us that its presence came to be recognised with sufficient distinction to have a name. And surgeons, you know, are not slow to find names for new things, whether real and actual, or mere imaginings. Yes, surely the chief triumph of this era of surgery is the successful war it has waged with blood-poisoning in all its various forms.

To avoid risk of confusion, let us consider for a moment what is to be understood by the term blood-poisoning. I shall employ it in its comprehensive sense to express the sum of the effects produced by the introduction of matter charged

by the action of septic poison into the blood. By septic poison I understand matter capable of producing or promoting putrefaction. This septic matter is thus, of course, separated from all inorganic and vegetable poison commonly so called, and by its effects, at least, in the economy, from those zymotic poisons which produce such diseases as small-pox, scarlatina, measles, and the like. But I need hardly add that I include in this view not only the affection called pyæmia, septicæmia, ichorrhæmia, and so on, but some others which perhaps would not be so universally accepted to be within the pale, as, for example, erysipelas, certain forms of erythema, boils often, and carbuncle, and some other affections more vague and transient, which perhaps I need not now further particularise, for on this subject I have already spoken elsewhere. Of course, I do not forget that concerning the pathology of erysipelas, for instance, contrary views are still entertained. For my part, I consider it to be fairly well established that erysipelas is due to some infection of the blood; that it is the result of some form of blood-poisoning, and very closely allied to the affections called septicæmia and pyæmia. Nor shall I now trouble you with any discussion of the relation of the affections called septicæmia and pyæmia to each other. But, in order to be clear, it is as well to say that I do not think there is any evidence at all sufficient to show that these affections are different in kind or in nature. So far as I can see, they differ only in degree—a degree probably determined, at least chiefly, by the intensity of the poison which operates. I can find no reason for assuming a difference in the nature of the poison itself. For the grounds of this opinion I must refer you to former papers on the subject.

The cause, then, of the blood-poisoning of which I speak is the introduction of putrid matter to the blood. I say its introduction, for if it ever originate in the blood itself, such an origin is at present beyond research. We know nothing of it. All that we do know is that it may be introduced from without. The current belief—may I say the established fact?—is, that the agents of putrefaction exist in the form of solid organic particles, some so minute as to be beyond the range of the highest powers of the microscope, which float freely in the air, and are now commonly called germs, and which abound in decomposing organic matter of various kinds, notably—and this is of chief interest to us—in decomposing animal fluids.

Let it be observed, however, in passing, that although the germ theory in its present form is of very modern growth, the belief that the admission of air to recent wounds is in some way injurious is not a new one. It extends at least beyond the era of the introduction of subcutaneous surgery, which is founded on it.

Now, it is necessary for me, in order to avoid being misunderstood in what I have to say hereafter, to state thus much; but I do not propose to enter further into it, to disturb the vexed questions that arise therefrom. I am considering the subject now only from a clinical point of view. Therefore I turn from any farther inquiry into the more precise nature of these septic particles. In what sense, for instance, they are entitled to be considered alive need not trouble us here, or whether they are more akin to vegetable or animal life. That they are organic, and possessed at least of the fundamental attributes of living matter, seems proven by their behaviour, and by some of the tests that we can apply to them. It is enough for us that they are septic; that they can produce and promote putrefaction; and further, that fluids so changed by them may provoke those terrible effects which are only too well known as blood-poisoning. I speak thus of the fluid which poisons, saying changed by, rather than charged with, bacteria or their germs, according to evidence; but I need not now consider this question. You will remember that it was discussed in a masterly manner last year by Dr. Roberts, in his Address on Medicine. Neither have I now anything to say concerning the particles of matter at present called bacteria. Everyone knows how they are prone to abound when putrefaction and kindred changes occur. For the most part, I suppose their presence may be regarded as the signal that such changes are in progress; but the exact relation they hold to such changes is at present with many a vexed question, and it is not necessary now to disturb it.

I have only one further remark to make on this portion of my subject. I have said that we have no knowledge that these mischievous particles ever originate within the blood.

We do know that when fluids so changed by them find an entrance from without, they are prone to provoke grave mischief. But we also know that such fluids, potent for the gravest mischief, may be produced within the body, deep among the tissues, far away from any chance of direct communication with the air, and this without previous wound or injury of any kind. Upon the passage of such matter into the circulation, the most fatal form of blood-poisoning may supervene. This significant fact, which is beyond question, has been of late strangely set aside, I would almost say wilfully overlooked, in very much of what has been written within the last few years. A fact significant, indeed, in a twofold sense. But to this I shall presently return.

It will be admitted, I trust, even by those who unreservedly accept what is known as the germ theory, that I have not been in any way unfair in what I have thus said on the subject. Some, I know, would not go so far as I have gone, but I am anxious not to do injustice to this view. But now I turn to another side of this great subject: a side which throughout the discussion has been curiously lost sight of; which, so far as I know, in the vast amount which has been said and written, has been almost entirely ignored. If the germ theory in its past and present state contained the truth, the whole truth, and nothing but the truth, what possible explanation is to be given of that which is witnessed daily and hourly—the kindly repair of exposed wounds? I will venture to say that anyone who had no clinical experience, but who accepted all that he could read on the germ theory, would inevitably come to the conclusion that to expose any wound unguarded to the atmosphere would be to seal the fate of the patient. But what is the fact? Who requires to be informed? Then is it not clear that the whole truth has not yet been told? Nay, further still, not only are exposed and unguarded wounds constantly to be seen in healthy process of repair, covered with secretion which presents no evidence of putrefaction, but wounds are sometimes seen bathed in fluid, which, if injected into the blood, would forthwith produce all the effects of blood-poisoning in the most intense degree. And yet further: not only may such fluids be in contact with open wounds without provoking any evidence of mischief, but a collection of the foulest fluid, in a state of considerable pressure; as, for example, in an anal or pharyngeal abscess, or in an abscess around dead bone. I say a collection of matter large enough and poisonous enough to destroy a host of persons, if passed into the blood, may remain thus pent up in the body for a long period without any visible disturbance of the general health. It is obvious, then, that the contact of wounds and raw surfaces with even putrefying fluids is not always enough, for this is seen continually without evil effects. They must be transmitted to the blood. I hardly know what would become of the practice of surgery if this were a matter of course. In point of actual fact—a fact second in importance to none in surgery, but which it is the fashion just now resolutely to ignore—I say, in point of fact it is very far from it. The transmission of such fluids, when they are present, is the exception, not the rule. Now, here again I am content to take the fact itself; and I do not propose to enter, at all events at any length, into any attempt at explanation. I do not think, however, that there we are altogether in the dark. All wounds, except the most recent, when tolerably healthy, are covered, as we all know very well, by a newly formed delicate structure sometimes called granulation-tissue; sometimes presenting other but kindred forms, but which in any case constitutes a continuous layer interposed between the blood and whatever may be on the surface; and it seems to be pretty clear that this animal membrane has, like similar structures of the class, the property of separation; that it has the power of allowing the transmission of certain substances and of rejecting others, and that upon this simple action of dialysis health and life very often depend. I say this explanation has been made reasonable by observation and experiment; but whether it be wholly or partially true or not, the fact—the vital fact—which it attempts to explain remains. Pause, if only for one moment, to think of it: a fluid all-potent for mischief, intensely poisonous, on the one side, to blood, to which if it gain access follows destruction, on the other, and a very thin, very delicate, most fragile membrane only intervening! Truly enough, to the patient ignorance of this is bliss; and surgeons just now talk, and write, and practise as if it were folly to be wise.

But such terrible transmission is sometimes effected, and

there is blood-poisoning. It remains, then, to inquire under what conditions the poison can gain entrance to the blood. I think the clinical study of this subject impresses us with some striking facts. First of all, that this mischief is least likely to happen in healthy wounds during the process of repair; and that, when it does occur, it is either in a wound unhealthy in character or flagging in its action, or in one so recent, or in which the process of repair has been so delayed, that little or no new and healthy tissue has been produced on the surface. In other words, when the newly formed tissue is healthy and entire, it is tolerably impregnable, and that whatever interferes with its integrity gives the opportunity for mischief. I say the mischief is less likely to happen in proportion as the wound is healthy and repair rapid; but exceptions to this we know occur, and it is reasonable to suppose, in some cases at least it has been almost demonstrated, if in some obscure corner reparative action has not failed, that from some violence, or accidental disturbance, or other cause, the continuity of the new structure has been broken or its integrity somehow impaired, and so the poison has passed in.

And now I hasten anxiously on to prevent the possibility of misapprehension even for a moment. But no one, I trust, could imagine, from what I have been saying, that I am not to the last degree impressed by the mischief which may arise from the presence in wounds of any kind of decomposing fluid; that in the most absolute and thorough cleanliness—not in the common sense only, but in a surgical one also—can a patient be at all secure. I shall return to this; but I shall not be in any way misunderstood here. My present purpose is to insist upon the fact that two conditions at least are required for the mischief of blood-poisoning; and that of late, in the concentration of attention upon the other, one of these has been strangely overlooked. There must be a fluid potent for evil, and there must be a surface ready to transmit it. Obviously, then, the means of preventing mischief, of conducting our patient safely through recovery from wounds and injuries, lies in fulfilling the opposite conditions: in the rigid prevention or exclusion, so far as it is practicable, of all putrefying or decomposing or foul fluid, and in keeping wounds in as healthy a state as possible, in fostering the soundest and most rapid process of repair. If either of these conditions be fulfilled, the patient may escape the mischief we dread; but undoubtedly the duty of the surgeon is, by all means within his power, to secure both. He is below the mark if he can ever be satisfied with less than this.

Furthermore, be it remembered that these two conditions, as the rule, are found in company. The fresh fluid upon the surface of a wound which is healthy and in process of repair is innocuous. No mischief of this kind lurks in fresh healthy pus; and if the fluid which bathes the surface of a wound become foul or putrescent, the character of the wound itself is apt to change, and the integrity of the surface to suffer. Therefore, a healthy wound in process of repair, and a fluid on the surface which is innocuous, as the rule, go together.

Animal fluids exposed in open vessels to the air after some time become putrid, the length of time varying with the state of the air; and so it is forthwith concluded and argued by many that if fluid upon the surface of a wound be exposed to the air it must while there become putrid too. But the fact is, that anyone who cares to witness it may see fluid at any time upon the surface of exposed wounds which is not putrid. And the explanation of this most familiar fact is simple enough: that the fluid in the vessel has been kept until it has become foul, while the fluid upon the surface of a wound in process of repair which is duly watched and properly managed is ever being renewed. The same fluid ought not to be allowed to remain long enough to undergo mischievous change. There is after all some difference between stagnant water and a running stream.

Dr. Roberts, in his memorable address last year, said: "Before we can understand the pathology of septicæmia, we must have clear ideas on the relation of septic bacteria to our bodies. We see in our laboratories that dead animal tissues, when exposed to ordinary air or ordinary water, invariably breed septic organisms; in other words, contact of septic germs with the dead tissue never fails to produce successful septic inoculation. But this is quite otherwise with the same tissues when alive and forming part of our bodies. You cannot successfully inoculate the healthy

tissues with septic bacteria. It has been proved over and over again that these organisms, when separated from the decomposing medium in which they grow, can be injected in quantity into the blood or tissue of a healthy animal, or applied to a sore on its skin, without producing the least effect. The healthy living tissues are an unsuitable soil for them—they cannot grow in it; or to put it in another way, ordinary septic bacteria are not parasitic on the living tissues."

"This fact," he continues, "is of fundamental importance in the discussion of the pathology of septicæmia. We have a familiar illustration of its truth in the now common practice of subcutaneous injection; every time you make a subcutaneous injection you inject septic germs into the tissues."

Thus the surgery of the present day, in this respect, is characterised as antiseptic; that is to say, since surgeons have duly recognised this great impending evil, they have, as their chief aim, striven to avert it. Here, at all events, increase of power has followed closely on the advance of knowledge. One has not, I repeat, to turn far back in our literature before all evidence of any suspicion of what is now known as blood-poisoning disappears. Our knowledge of the fact of even the existence of such an affection is of recent date; and for several years after the subject first attracted the attention of surgeons, the comparatively clear and simple view of its pathology which at present prevails was for awhile obscured by theories and doctrines, which drew observation away from the actual cause, to speculations on phlebitis, thrombosis, and other changes which are often associated with it. The history of our present knowledge of blood-poisoning is an interesting and instructive one. At first, all attention being naturally concentrated on the changes wrought in the body, the origin and cause of the affection was sought only within those limits. Then when the truth began to dawn that the actual poison was derived from without, the pendulum of opinion, according to its wont, swung at once to the opposite extreme, and I venture to think that of late the opposite error has prevailed, of regarding only the conditions under which the poison is formed, and losing sight altogether of the conditions under which it affects the blood.

Antiseptic surgery! Unhappily there is much confusion in the current employment of this phrase. This ought to mean—and with some, but a few only, it does mean—the principle which aims to secure healthy wounds and their repair as speedily as possible (for while they last there is always risk) by the most scrupulous cleanliness—by cleanliness, I repeat, not only in the common, but in the surgical sense, which means the prevention or removal or destruction of all matter which may prove poisonous. This, I take it, is the only adequate conception of antiseptic surgery; and, as thus understood, the term antiseptic ought in fact to become

superfluous, being thus simply equivalent to good surgery. Less than this should mean unwholesome practice. But somehow there is a weakness among us for exuberance of this sort. What a run the phrase "conservative surgery" had, for instance, nay, still has in certain quarters, as if surgery itself were worth anything, could have any value, or even deserve its name, if it were not in the truest sense conservative! The employment of the term "conservative" ought surely to mark an inadequate conception of our art, and I would fain say the same of the word "antiseptic." If surgery be not antiseptic in the sense I have endeavoured to indicate, it must foster most dangerously, by covering with its sanction, the prevalence of mischief. But antiseptic surgery, as more commonly understood, implies the liberal employment in practice of special agents, which are collectively known as antiseptics; and the number of these—their name is legion—which has been introduced to the profession and the public, and the amount of many of them which is consumed, testify abundantly to the extent of opinion in their favour. But in this sense, again, I suppose all surgeons nowadays practise antiseptic surgery. Perhaps an instance hardly ever occurs now in the treatment of a wound in which an antiseptic of some kind is not in some way employed during its progress; never, perhaps, in what should be called civilised surgery, if we allow—as we should allow—free ablution with clean water, adequately used, to be amongst the simplest, safest, best of antiseptics. And lastly, the term antiseptic is employed, and this most commonly of all, to express a particular method of carrying out the great principle; the method which has attracted, and is still attracting, so large a share of attention. Of course, I allude to that which has been devised by Lister, and which is more precisely termed Lister's plan or method of dressing wounds.

It would be a matter of comparatively little moment in which of these senses the term antiseptic were used if only the present degree of confusion could be avoided; but some mischief arises, I think, when the principle itself is confounded with any special mode of practice.

Now, since some light has been thrown on the nature and cause of this affection, what has surgery done to avert it? Yes, there are grounds for congratulation in this direction. This would surely be the answer given by the general experience of surgeons; and vague and full of fallacy as this necessarily always is, it must, and especially in this case, be allowed to go for very much. And this is the answer given by statistics, which although too often laden with fallacy also, speak, I believe, plainly and conclusively on this point.

I have no intention of trespassing on your patience now with any formidable array of figures; but rather by way of illustration than of complete proof of the truth of what I state, I would ask you to regard for a moment the facts set forth in this table.

Tables showing the Statistics of Blood-Poisoning after Operation or Injury in St. Bartholomew's Hospital for the Years 1876-77-78.

[From these tables, herniotomy, ovariectomy, operations on the eye, and others of a trivial kind, are excluded.]

	1876.				1877.				1878.				The 3 years.	
	Male.	Female.	Total.	Per cent.	Male.	Female.	Total.	Per cent.	Male.	Female.	Total.	Per cent.	Total.	Rate per cent.
Cases of injury	665	250	915	...	686	191	877	...	807	262	1,070	...	2,862	...
Cases of operation	268	133	401	...	274	144	418	...	223	191	416	...	1,235	...
Deaths after injury	56	19	75	8.19	51	15	66	7.52	53	20	73	6.82	214	7.47
Deaths after operation	24	3	27	6.73	17	6	23	5.5	14	8	22	5.28	72	5.82
Cases of pyæmia after injury . . . . .	...	...	...	...	4	...	4	0.45	1	1	2	0.18	6	0.29
Cases of pyæmia after operation	2	...	2	0.49	4	1	5	1.19	3	1	4	0.96	11	0.89
Cases of erysipelas after injury	10	3	13	1.42	3	...	3	0.34	4	2	6	0.56	22	0.76
Cases of erysipelas after operation	9	6	15	3.74	3	5	8	1.91	10	5	15	3.60	38	3.07
Deaths from pyæmia after injury . . . . .	...	...	...	...	4	...	4	0.45	1	1	2	0.18	6	0.29
Deaths from pyæmia after operation	2	...	2	0.49	4	...	4	0.95	3	1	4	0.96	10	0.80
Deaths from erysipelas after injury	2	...	2	0.21	1	...	1	0.11	1	...	1	0.09	4	0.13
Deaths from erysipelas after operation	3	...	3	0.74	1	1	2	0.47	2	1	3	0.72	8	0.64
Cases of blood-poisoning after injury	10	3	13	1.42	7	...	7	0.79	5	3	8	0.74	28	1.05
Cases of blood-poisoning after operation	11	6	17	4.23	7	6	13	3.11	13	6	19	4.56	49	3.96
Deaths from blood-poisoning after injury	2	...	2	0.21	5	...	5	0.57	2	1	3	0.28	10	0.42
Deaths from blood-poisoning after operation	5	...	5	1.24	5	1	6	1.43	5	2	7	1.68	18	1.44

All the operations, you observe, upon which this table is based are of some magnitude, most of them capital ones; trivial operations have been eliminated. From these calculations, too, for various reasons, you see that operations for hernia, ovariectomy, and operations on the eye have been excluded.

This short table, then, presents a summary of the results of the surgical practice of St. Bartholomew's Hospital in this relation during the last three years. I have had no hand in the work of preparing it. It has been drawn up by Mr. Macready, who is one of our surgical registrars; and I need not assure those who have the pleasure of knowing him that it is a faithful, independent, and trustworthy record. In the labour of it he has had no cause to serve but that of truth.

I may add that our hospital statistics are published yearly (of course, on a far more extended scale), and that in those tables, and in our own case-books, the facts, which are open to anyone, are fully set forth upon which these figures are founded.

What, then, is here shown? That in 1876 the absolute number of deaths from pyæmia after operation were 2, which is at the rate of 0.49 per cent.; or, including erysipelas in the common term of blood-poisoning, they were 5—at the rate of 1.24 per cent. In 1877 the number of deaths from pyæmia were 4—at the rate of 0.95 per cent.; or, including erysipelas, they were 6—at the rate of 1.43 per cent. In 1878 the deaths from pyæmia were 4—at the rate of 0.96 per cent.; with erysipelas, 7—at the rate of 1.68 per cent. Once more: During the three years there was a total of 18 deaths from blood-poisoning after 1235 operations, and this is at the rate of 1.44 per cent.

Now, so long as any instances whatever of this mischief occur, we shall regard our work in this respect as defective, and strive to do it better. I, at least, am ready to change my present plan of management when there is evidence of this character that better results can be accomplished by any other means.

Yes, I think it cannot be doubted that the occurrence of blood-poisoning during the progress of wounds and recovery after operations has been of late very far less common than formerly, and is, I venture to believe, daily becoming yet more rare. It is far less frequent now than it was, I will not only say many years ago, when we cannot estimate its frequency from lack of any adequate record—because, indeed, then its actual occurrence often escaped even passing notice—but it is now far less frequent than it was only a few years back, within even the memory of younger surgeons. But congratulatory, I had almost said triumphant, as are the statistics of the present day, I must own that it is necessary to regard these with a jealous eye, and in many instances at least not to accept them without reserve. For this chief reason. Since the prevention of blood-poisoning after wounds and operations has become the great theme of surgery, surgeons almost everywhere have been naturally and very laudably anxious to gain credit for the best results. A keen, active, and noble rivalry has sprung up between surgeons and between institutions. A splendid struggle now goes on throughout England, Europe, and the civilised world to reduce the mortality from this cause after operations to the lowest possible terms. Beyond all doubt, the gain to human life and health from this has already been immense—who shall say how great, or how much greater still it will be? But then, you know, in such a case it is almost inevitable but that the judgment will be swayed by the desires; that, in one's anxiety to escape what happily has become almost the disgrace of the occurrence of blood-poisoning in any case under one's care, the signs of it are rather open to be misinterpreted, or explained away, or called by some other name. The mischief that arises and perhaps kills is set down too readily to some other cause—to any cause rather than this. In short, it is met as a disreputable acquaintance and not recognised. But, gentlemen, even this is by no means without excuse, if only such sophistry is the outcome of enthusiasm and does not wilfully pass beyond the limits of honesty. It leads nevertheless to error, and of course is to be avoided if possible. For my part, at least, then, I do not accept statistics here (or, for that matter, statistics of any kind) without reserve. Statistics on this head, to be fairly trustworthy, should state not merely the fact of death, but in each fatal case after operation or injury, when not attributed to blood-poisoning, a plain statement of what is actually

disclosed by an examination after death should be given, and this would be yet more valuable if such a record were made by some independent observer. Or, failing this, I would rather take as a standard the total number of deaths which occur after injury or operation, to whatever cause or causes they may be attributed; for, excepting distinctions which can be safely drawn, such as immediate death, or death supervening within an hour or so, and obviously from direct exhaustion or death from hæmorrhage, and excluding the results of certain operations—as tracheotomy and trephining and those for hernia—in which death is often due rather to the disease or injury for which the operation is performed than to the operation itself, I should venture to say the difference is very small indeed between death after operation from any assigned cause whatever, and death from poisoning of the blood.

And now, furthermore, by what particular means have these results been achieved? Hitherto, I say advisedly, the best results by the simplest means.

Forgive me if I refer again to the records of my own hospital—St. Bartholomew's—for evidence of this responsible statement. I claim from our own statistics this—and if I am in error you will reject the claim—that the result to which they testify has not been, on the whole, surpassed. I believe they may challenge comparison with those from any other trustworthy source.

Now, considering all the various details in the treatment of wounds and the management of cases after operation, the practice of no two surgeons of the staff is precisely alike. Each one of the surgeons perhaps carries out certain details in some way different from the others, but on the chief objects in view we are undoubtedly in accord. We aim at the most scrupulous cleanliness, in the most comprehensive sense of the term. We strive to secure this by all possible means. We watch very carefully the actual state of wounds, and we use very freely antiseptics of various kinds. And with cleanliness we attach for the most part the highest importance to rest. We are careful to disturb wounds during the process of repair as little as possible. Cleanliness in its surgical sense and rest in its physiological sense may be said be the leading aims. But we are by no means satisfied with directing attention only to wounds. We are most jealous of the state of the atmosphere of our wards. We keep the air as pure as possible. We have no particular or partial system of ventilation. Ventilation is effected only by open windows and large chimneys. But we are proud of the habitual state of our wards, even when most closed, as during the night-time. We should not for an hour tolerate any unpleasant or suspicious odour. We are very careful to avoid, as far as practicable, any tendency to overcrowding of wounds in the same ward, and each patient has from 1100 to 1400 feet of space. Lastly, we attach the highest importance to the state of health and condition of our patient before operation, and never, when we have choice and opportunity, inflict an injury without previous inquiry in this direction very fully carried out. Well, what of all this? will perhaps be said. Of course, all this is done everywhere. So much the better. The results, you see, are not due to anything beyond the observance of the recognised principles of surgery. I have said our individual practice differs in detail; but my conviction is, that our results are due to the strict observance of sound principles of surgery. For the rest, I shall take the liberty of trying your patience for a few moments by describing somewhat more in detail the practice I follow, because I believe that results equal to the best hitherto obtained may be thus reached.

Well, then, taking a case—say, of amputation through the thigh, or of excision of the breast—I should treat the wounds in the way following. Having carefully arrested all hæmorrhage, using most probably the carbolic catgut ligature, and having gently removed any particles of blood-clot that may have lodged on the surface, employing only clean water or sponges just rinsed out of it, I should, without any further interference with the surface of the wound, bring the edges together, adapting these as nicely as possible with silver-wire sutures. I should not in this way attempt to close the wound completely, but I should leave spaces between the sutures, perhaps from one to two inches long. Then, over the course of the wound and for some distance on either side of it, I should place a layer of folded lint which had been previously well soaked in olive or almond oil containing one part in about fifty of carbolic acid. Over

this again I should place two or more layers of dry lint, either with or without cotton-wool; so arranging this as, by gentle and equable pressure, to secure, without any violence, as far as practicable, the accurate adaptation of the surfaces of the wound throughout, avoiding thus any considerable cavity in the interior. I should secure all this by strapping or bandage, or both, so adjusting these that they may be hereafter removed with the least disturbance. I should place the patient and the wound in the most comfortable position possible, having especial care to the fact that fluids, as they form, may flow outwards. Thus, for instance, after excision of the breast, I have, for some time past, placed the patient, not on her back, but on the opposite side, so as to make the inner angle of the wound the most dependent part of it. I am convinced that this assists greatly in promoting speedy and satisfactory repair. It is much better for fluid to escape at the inner than at the outer angle, and this more especially when the axilla has been disturbed by the removal of glands. The cellular tissue is so very much less abundant and less loose towards the sternum, that the chance of infiltration of the fluids is very much less. As a rule, perhaps, I do not disturb this arrangement for forty-eight hours, although very often I change the dressing and inspect the wound after twenty-four. I am guided in this matter of time chiefly by the state of the patient; whether spare or full-bodied; her sense of local and general comfort, freedom from or complaint of pain; and the season or temperature. But whenever I am in any doubt, I change the dressings. These, then, are removed with the utmost gentleness, and the state of the wound carefully inspected. Especially is attention directed to whether there is any tendency to the lodgment of fluid; whether that which forms can escape freely; whether there is much tension of the edges. I am bold enough to think that any surgeon who understands his business can tell, without any painful handling, whether the surfaces of the wound are fairly in contact, or whether there is any tendency to the accumulation of fluid separating them. But if any doubt arise on this important point, a perfectly clean probe or director lightly applied to some portion of the wound will solve it, and secure ample vent; if at all necessary, I should not hesitate to remove one or two or more sutures. If the wound presented no other evidence than that of satisfactory repair, I should dress it as before, and proceed in this fashion, dressing and examining it daily or less frequently, according to circumstances. But if at the first dressing, or whenever afterwards the discharge became at all profuse, or the surfaces did not remain in contact, or there were much tension or a blush at the edges, I should forthwith substitute a bread-and-water poultice for the previous dressing, and probably continue to apply this until at least all the deeper portion of the wound had closed. When I dressed the wound, I should wash it probably from the first with tepid water, perhaps containing some permanganate of potash in the form of Condyl's fluid or other potent antiseptic of the least irritating kind. I should accomplish this washing out, if I thought fit, of portions or even the whole of the interior by the use of a syringe, avoiding contact of sponges or other substances with the wound. I aim here at the utmost possible cleanliness, having at the same time due regard to the avoidance of any unnecessary disturbance, that the process of repair be not interrupted. And withal I endeavour, by means I need not indicate, to secure for my patient the most complete rest and the purest air.

With regard to the substitution of a poultice or water-dressing, or some other form of application for the simple dressing used in the first instance, I think one can tell for the most part beforehand if they are likely to be required at all, or early in the management of the wound. In young persons in tolerably good health and spare, most wounds, when not worried, heal very directly. It is in those advanced in life, with flabby textures and much loose fat among them, that wounds give most trouble. These pour out fluid freely and are prone to flag, and, while the process of repair is delayed, may fall into mischief in various ways.

Now, I am sure you will allow that this mode of treating wounds in general which I have thus slightly sketched is characterised by its simplicity and the entire absence of all novelty; my purpose being to interfere in the least degree possible with the work of nature. Some years ago it would not be worth recording; and now perhaps it will excite surprise to find that any plan of treatment with so little in it is still adopted. Allow me yet to trouble you with a few comments.

In the first place, at the time of the operation, or immediately afterwards, you see, nothing is applied to the wound but water as a rule; no antiseptic of any sort, provided the surface of the wound is healthy. Because I believe that such healthy natural surfaces are in the state best adapted to satisfactory repair; and that, as a rule, in proportion as they are changed by the application of foreign agents, so are the changes which initiate repair hampered or arrested. I would ask, if it be wise thus to wash the surfaces of recent wounds with antiseptics, why not treat all wounds so—as, for example, in the operation for hare-lip? Antiseptics, at this time especially, are irritants in some degree; and, unless they are very strong, and therefore very irritating, their power to arrest mischief is lost before the period for that mischief has arrived. Therefore it seems to me, for the employment of antiseptics from the first to become reasonable, the wound throughout its progress must be kept thoroughly under their influence; and of this particular plan I shall speak presently.

Then you see, as a rule, I do not employ drainage-tubes. Now, the employment in routine of drainage-tubes is so fashionable; they are just now, and for some time past have been, so highly in favour with surgeons in general, that I must ask your indulgence to bear with me while I venture to criticise their action. The purpose for which they are so habitually employed is undoubtedly clear and sound enough: to avoid the accumulation of fluids in wounds. These fluids, when they have become changed, are the most common and active source of mischief; and the less lodgment there is of these in a wound, the safer it is for the patient. But is there no means than this of providing for the escape of such fluids? You will perhaps gather, from what I have already said, that I, for one, believe there is, with ordinary care and skill. I think if the edges of a wound be not allowed to close before the deeper parts, and that by position the outlet be made sufficiently dependent, as a rule, all dangerous accumulations may be avoided. There are instances, however—exceptional, I think, after operation, but of more frequent occurrence in other cases—in which the insertion of something between the edges of a wound, or deeply into its substance, or throughout, may be very useful; and then for the most part I should employ a strip of thin gutta-percha or some threads of carbolised catgut. I am most disposed to insert something of this sort where I expect the process of repair to be least direct, where the wound is large and irregular, and where the secretion is likely to be profuse and rapid. For example, after the removal of a breast in a very fat person, I should probably, at one or two parts, insert a narrow slip of gutta-percha. But why not, then, do this in every case? Well, I think there is no material objection to it; and where otherwise the progress of the wound cannot be watched in a trustworthy manner, it is better to adopt it. But I repeat that, as a rule, in the management of the simpler wounds, under the care of a surgeon who knows his business, there is no need of it. But, in my mind, there are positive objections of weight to the employment of drainage-tubes. At first sight, indeed, for their chief purpose they are very plausible instruments; but do they after all effectually discharge their duty? Does the greater portion of the fluid which forms in a wound where they are as a rule escape from them? From my own experience I should say, No; and I do not think I am at all singular in this observation. It has been more than once publicly pointed out (and I am sure the fact must have been often witnessed) that, when a drainage-tube is withdrawn from a wound, a gush of fluid will follow it, and almost always some fluid, more or less, trickles after it—more than enough to provoke mischief if it be poisonous and can pass into the blood. In any case, the fluid which forms in a wound will flow downward to the deepest parts, and not upward, unless under pressure; and if from the position of a wound the aperture or apertures be at the dependent part, it will escape without tubes. If it be not, if there be a cavity within deeper than the outlet, what power, I should like to know, have drainage-tubes to draw it upward out of this? I think, then, if the position be not satisfactory, and the vent sufficiently free, they are needless; if the position be not satisfactory, they are useless. I say, therefore, as a rule, drainage-tubes are not effectual instruments for their chief purpose. But, furthermore, their presence is often directly and actively mischievous. They are foreign bodies in a wound. They act, of course, as foreign bodies in almost all circumstances do; they

irritate; they provoke suppuration and the formation of fluids. Those who are accustomed to witness with complacency the escape of fluids along drainage-tubes hardly reflect that the drainage-tube has been a cause—perhaps the prime cause—of the fluid which flows out. When I see these tubes moved to and fro in a wound with the escape of pus, I am forcibly reminded of what I have often seen in former years, the action of setons. A drainage-tube is, in fact, a seton. Even when they are retained only for a short time, not long enough to induce further mischief, they are fatal to the chance of direct union of a wound. And is this, the best of all results, to be now altogether given up as a visionary idea? Is union by the first intention to become a thing of the past? When I see, for example, a fatty tumour, small, or of moderate size, removed from under the skin, and then the edges of the wound stitched closely together over a drainage-tube lodged throughout its length, it seems to me simply idle to talk of principles of surgery. That such wounds do at length close in spite of this treatment, I know; but I think I know also that they will heal more quickly and kindly, directly without disturbance, if they are simply closed in the way I have already alluded to. It is surely very rare indeed for such wounds, if thus naturally treated and duly watched, to give rise to any anxiety or trouble. For my part, I do not think the risk, such as it is, at all lessened by insisting on a more circuitous process of repair.

I do not contend that drainage-tubes ought never to be employed. In exceptional cases, I believe the advantage outweighs the evil of their use, as, for example, in the after-treatment of empyema, where they are very useful in enabling us in a far more satisfactory manner to wash out the chest; and this, by the way, is an advantage often claimed for them, and with some force, in other instances. But I do not believe there can be usually much difficulty in washing out the interior of a wound without the necessity for that purpose of the permanent insertion of a drainage-tube.

And withal a word or two on behalf of that much abused application, a common bread-poultice. Its absolute and relative value in surgery can be determined only by experience; and, if the surgeons who condemn it have done so only after having given it a fair trial, then all I can say is that their experience on this subject is very different from mine. Having many years ago, like, I suppose, most surgeons at one time or another, been prejudiced against poultices (for, if not skilfully made, they are ugly and clumsy things), I have more than once cast them aside in favour of some other application; but again and again I have been driven back to their use by the plain fact, as it appears to me, that they fulfil certain conditions better than any of their rivals. I do not undertake to explain why they are thus excellent. I find certain qualities possessed by them in an eminent degree; but to what precise extent these are instrumental in the result I cannot say. A well-made bread-poultice (which I make bold to suspect some of you have never seen) preserves ample moisture and equable warmth; it is everywhere very soft, and adapts itself with singular uniformity to all irregularities of surface. In my experience this homely article far more frequently draws from the patient the word "comfort" than any other form of dressing. "Yes, that is comfortable," is a familiar expression after the application of a poultice. Poultices, of course, like all other appliances, are liable to abuse; and I think that years ago they lost favour chiefly on account of the reckless way, as mere routine, in which they were employed, the faulty manner in which they were too often prepared, and the length of time during which they were allowed to remain unchanged. But I venture to repeat that, when applied in appropriate cases, they give, so far as my experience goes, more comfort to the patient and satisfaction to the surgeon than any other substance. Moreover, in certain cases of unhealthy wounds and of foul discharges, they become a most convenient vehicle for the use of charcoal and other agents; and I for one, in spite of all our present proud array of antiseptics, should be sorry to lose altogether the help of the old-fashioned charcoal-poultice.

But now I must pass on to speak of that particular plan of practice which aims at unconditional security—the plan the purpose of which is to exclude all risk of blood-infection by the rigid exclusion of living germs; notably of that particular method which has been introduced by Lister, and at present known everywhere as Lister's method. Now, the relative

value of this method of treating wounds may be tried—should be tried, I think—first by the facts which have been ascertained in regard to it; and, secondly, by the arguments which can be advanced for or against it.

First, then, with regard to actual facts. Are there any trustworthy statistics to show that hitherto the results obtained by Lister's plan are better than the best results obtained by any other method? I think most will admit that this is a question of considerable weight. Well, I take, for instance, our hospital statistics, to which I have already referred, on the one hand, and I seek in vain for any parallel results on the other; and, while this is so, I shall consider that I am justified in the conviction that hitherto the best results have been achieved by the simpler method. And I must add that one seeks in vain for statistics of any kind from sources from which I submit we are entitled to expect them. Why are such statistics withheld? Are they not worth the trouble of collection? And, if they have been collected, why are they not published? But let this pass. I say I know of no results from Lister's method like those which I have given. Indeed, many of the statistics which have been so triumphantly presented to us make but a sorry figure by the side of the best, and they admit only of excuse by comparison with former results from the same place. And here I cannot help thinking that confusion and fallacy prevail on this matter; that, to answer this prime question, old and new results are constantly compared. Some hospitals, in which for several years the results have been much more unfavourable than those which can now be shown, have adopted this method, and the contrast has been striking; that is, the old and new statistics of the same institution have differed widely. And this shows that a great improvement has been wrought there by the adoption of Lister's method; but it by no means shows, as so many seem to accept that it does, that the best results of all can be obtained by this plan. For the fact is, conclusions drawn from comparisons of former and present practice at the same hospital are, in all probability, charged with this fallacy: that almost everywhere, from the attention which has now been for some time past directed to the subject, and from the greater care and caution exercised, the mortality after injury and operation has been considerably reduced. I might give you illustrations of what I mean in figures which have been published in triumphant demonstration of the superiority of this method. What do they actually show? Why, that while the adoption of Lister's plan has effected a vast improvement in the death-rate of a particular institution, the results obtained by it are still far below those which have been obtained by other methods. The contrast between the results of Lister's plan and the records of what I would fain hope may now be called former days is most marked where the previous mortality was highest; and it is easy to understand why the most enthusiastic reports in its favour come from those places where the sanitary conditions are worst. Beyond all question, I should say, in too many instances, it has proved far better than that which it has replaced; but to conclude from this that it is better, or in its results equal to every other plan at the present time adopted, is to set the simplest rules of logic at defiance, to foster error and confusion. No; Lister's plan must be tested (it would be an insult to its author to propose less), not by contrast of former with present statistics, but by comparison of it with the best results which now are obtained otherwise.

But on this question of actual fact I must remark farther that, from observation of the method in cases in my own hands or under the care of my colleagues, I am impressed with the conviction that, as a rule, wounds heal more satisfactorily, more directly and quickly, under simpler plans. But an error of a like kind prevails here. An operation is performed in a sufficiently simple and straightforward case; this mode of dressing is adopted; all goes well; the wound heals; and the result is forthwith registered as demonstrative. The majority of wounds heal very well under various plans—heal, for the most part, in spite of many hindrances, if these do not exceed certain limits; and the majority of wounds heal under this particular plan. But I need hardly observe that the great question at issue is not at all touched by this kind of evidence.

I ought, however, to allude to a fact of which I, and probably many others, possess some evidence, that Lister's method has been both charged and credited with results that do not belong to it. A satirist might, indeed, have found

ample scope for indulgence during the last two or three years in the treatment to which wounds have been subjected under the auspices of this plan. Very often, I should say, they have been converted into germ-traps and hotbeds for the cultivation of bacteria. But I repeat my conviction, that when the plan is accurately carried out, as a rule, it delays the repair of wounds.

The use just now of the word "logic" recalls a curious instance of the kind of evidence which in various ways has been offered on this question. In the November number of the *Fortnightly Review* for 1876, Professor Tyndall publishes a discourse delivered before the Glasgow Science Lectures Association, entitled "Fermentation and its Bearings on the Phenomena of Disease." In this article, after remarking "that while against unsound logic a healthy mind can always defend itself, against unsound experiment without discipline it is defenceless"; and "it is only by practice among facts that the intellect is prepared to judge of facts, and no mere logical acuteness or literary skill can atone for the want of this necessary education." At page 562 he tells the following story:—

"A few years ago I was bathing in an Alpine stream, and returning to my clothes from the cascade which had been my shower-bath, I stepped upon a block of granite, the sharp crystals of which stamped themselves into my naked skin. The wound was an awkward one, but, being in vigorous health at the time, I hoped for speedy recovery. Dipping a clean pocket-handkerchief into the stream, I wrapped it round the wound, limped home, and remained for four or five days quietly in bed. There was no pain, and at the end of this time I thought myself quite fit to quit my room. The wound when uncovered was found perfectly clean, uninfamed, and perfectly free from matter. Placing over it a bit of goldbeaters' skin, I walked about all day. Towards evening, itching and heat were felt; a large accumulation of matter followed, and I was forced to go to bed again. The water-bandage was restored, but it was powerless to check the action set up; arnica was applied, but it made matters worse. The inflammation increased alarmingly, until finally I was ignobly carried on men's shoulders down the mountain and to Geneva;" "where, on the morning after my arrival, Dr. Gautier discovered an abscess in my instep at a distance of five inches from the wound. The two were connected by a channel, or *sinus*, as it is technically called, through which he was able to empty the abscess without the application of the lancet."

And the Professor continues: "By what agency was that channel formed; what was it that thus tore asunder the sound tissue of my instep, and kept me for six weeks a prisoner in bed? In the very room where the water-dressing had been removed from my wound and the goldbeaters' skin applied to it, I opened this year a number of tubes containing perfectly clean and sweet infusions of fish, flesh, and vegetable. These hermetically sealed infusions had been exposed for weeks both to the sun of the Alps and to the warmth of the kitchen without showing the slightest turbidity or sign of life. But two days after they were opened the greater number of them swarmed with the bacteria of putrefaction, the germs of which had been contracted from the dust-laden air of the room. And, had the matter from my abscess been examined, my memory of its appearance leads me to infer that it would have been found equally swarming with these bacteria—that it was their germs that got into my incautiously-opened wound; and that they were the subtle workers that burrowed down my skin, dug the abscess into my instep, and produced effects which might well have proved fatal to me."—Pp. 562, 563.

Now, what is to be said on the "soundness" of such "scientific data" as these? Those who know anything of the details of the practice of the "antiseptic system" will smile at the professor's mode of excluding germs by "dipping a clean pocket-handkerchief into the stream," etc. If such an all-important condition can be fulfilled in this way, what is to be said of the sprays, lotions, and dressings; of the elaborate details which have been contrived to kill or exclude them? One can imagine with what scorn the professor would have replied to anyone who pretended to exclude germs by the application of a "clean pocket-handkerchief"; how triumphantly he would have appealed to the "searching beam"; how he would have introduced tiny fragments of the handkerchief, and perhaps drops of the stream, into his skilfully-prepared infusions, and have shown

them presently swarming with bacteria. But to go on: "The wound when uncovered was found perfectly clean," etc. Now, in days of yore this very harmless and simple plan of treating wounds was common; and no one wondered to see them, after four or five days of rest, "perfectly clean, uninfamed, and entirely free from matter." But what followed? He "walked about all day. Towards evening itching and heat were felt," etc. If there be any difficulty in explaining the facts here set forth, surgery has assuredly long been under a strange delusion regarding the influence of rest, and motion, and position, on the course and progress of wounds. Then "arnica was applied, but it made matters worse." Of course. But Professor Tyndall throughout all his trouble can see no agency at work but the germs!

Some may say, perhaps, that Professor Tyndall is not a surgeon, and has; therefore, no claim to be heard on this subject. But whatever Tyndall says or writes must have weight, and is sure to be heard by many, let him speak on what subject he will. And after all, this is not so much a technical question of surgery, but rather one in the nature of evidence. Moreover, it is an eminent example of the kind of testimony which to an overwhelming extent has been published, and much of it even by surgeons, on this question. I think, therefore, no apology is needed for what some may consider a digression. I have even introduced the narrative at length, that you might lose none of the charm of his business style. But, failing evidence of this kind, it is said that, under this plan, we are enabled to perform certain operations with success, to achieve results in surgery which cannot be attempted with any reasonable prospect of success by other methods. I take leave to doubt whether these assertions are borne out by facts. In my humble opinion, operations are sometimes performed, both with this method and otherwise, which in any case had better be left undone; but I believe that patients have escaped with life after operations as full of risk to it, with other methods as with this. But this sort of statement, because it admits of no direct refutation, is never wanted in favour of any novelty. Has any new plan of treatment ever been proposed unsupported by abundant illustrations of its excellence? Are those who can tell of wonderful results from this method in a position to state that none equal to them have been accomplished in other and more simple ways? If it were not for the interests at stake, one might find some amusement in hearing and reading, in the light of experience, of the surprising triumphs of "antiseptic surgery." But this is an old story; a tale too often told. With reference to this, Bryant has well said, "The publication of isolated cases, however good, proves nothing, whereas the withholding of the whole suggests much." So far as actual facts, therefore, are at present concerned—and it seems to me that the time has arrived when we may use such records—if I am to adopt that line of practice in which the mortality is lowest, I cannot see that I have as yet adequate grounds for relinquishing the plan of treatment I at present follow.

To the next point. This particular plan of dressing wounds is founded on the accepted fact that the germs in the air are the sole cause of blood-infection, and its purpose is the prevention of this by their rigid exclusion or destruction. Is then, let it be asked first of all, this purpose by this means fulfilled? Does blood-poisoning ever occur in this practice? In point of fact, it does from time to time occur, and sometimes proves fatal. Everyone is aware, of course, of the answer which is given to this—that it is due to the mode of dressing being imperfectly carried out; to some flaw in the management of the details. To which, again, it may be replied that, although the contrary does not, from the nature of the case, admit of proof or actual demonstration, such a catastrophe has undoubtedly occurred, and does still not unfrequently occur in skilful and experienced hands, in the practice of excellent surgeons, enthusiasts in this method. And if this be so, it practically, you see, amounts almost to the same thing. If the plan be only ideally perfect, and liable, in spite of such care and dexterity, to fail in practice, it still misses its aim. Indeed, here is the critical question: If it be not absolutely, unconditionally protective, in what relation does it stand to other methods? Why, so far as we have facts to guide us, as I have already stated, up to this time it has not made out its case. And then, are there no possible objections to it? It shuts out the wound from view—to my mind, no trivial drawback. The wound cannot be examined without an elaborate process of change of dress-

ings, always involving disturbance, if not risk. And although it may be said that confidence in the safety of this plan dispenses with such need, the question again arises whether it is reasonable to give such confidence as this. But it is further urged that one can tell by other signs what is going on in the part; that local mischief is revealed by rise of temperature or of pulse. Yes, after a while, but not until the system has been disturbed by it. I think that when a wound or injury is under ready inspection, we may detect the tendency to go wrong earlier than this; and upon the earliest detection of such tendency I think very much may turn. I do not believe this objection can be explained away. Then this mode of dressing very often irritates; as the rule, more or less, sooner or later. This local irritation, as the result of their repeated action, is, I should say, one of the most annoying objections to the use of antiseptics in general. They will do this; and although for a great end, this may, within limits, be endured as a comparatively trivial circumstance, yet it not unfrequently proves to be of more serious moment by interfering with, and so delaying, the process of repair. Thus certainly their employment in this way is not favourable to the best results of surgery in the repair of wounds by the simplest and most direct process. But while I think it must be conceded that this mode of treatment is not favourable to union by the first intention, it is claimed for it that, when wounds close by a more circuitous route, this process is shortened and simplified. I say to this—not proven; on the contrary, that the evidence is the other way. It has been affirmed that, under this plan, the constitutional disturbance, as indicated by the rise of temperature which usually attends the repair of considerable wounds, is very much reduced in degree. I have often heard the assertion made that there is usually very little or none. I have reason to believe that many very exaggerated notions prevail in regard to the amount of constitutional disturbance attending the repair of wounds when managed otherwise. As a rule, there is more or less constitutional disturbance shown by rise of temperature during the repair of large wounds under any plan; but the evidence at present before us by no means shows that with this method it is less than any other.

Again, much has been made in this matter of the formation of pus. It was, I believe, once contended that the formation of pus is prevented by this means; and now, that the process of suppuration is very materially reduced; that it is serum or a serous fluid, rather than pus, wounds so treated pour out. Well; but when wounds have to heal by granulation, is laudable pus a cause or sign of mischief? I am not speaking of profuse and long-continued suppuration, which is really out of the question here, but of such suppuration as usually occurs during the repair of a wound. For my part, I confess I am neither ashamed nor afraid to see well-formed pus covering the surface of granulations; nay, I accept it as a very favourable sign. I am accustomed to watch it carefully, for I think, in the change of character of this secretion, we have often the first signal for good or evil, and, as a rule, the condition is satisfactory under a layer of laudable pus. I say, then, even accepting the statement, it remains to be shown that a serous speaks of a better state of things than a purulent discharge.

Then, for me at least, and for the reasons I have given, the constant and prolonged employment of drainage-tubes is a serious objection. I am convinced, I repeat, that they too often prove sources of local and general irritation. Thus I have seen a large chronic abscess opened and dressed carefully with the rigid precautions of Lister's method. I have seen the patient day after day but little disturbed, with a temperature one or perhaps two degrees above the normal; and then, at the end of a week, or of nine or ten days, I have seen all the dressing hitherto applied suddenly removed, the drainage-tube withdrawn, and a common bread-poultice applied to the now fully exposed surface. The result has been that the temperature has quickly fallen to the normal point; and my belief is that, in more than one instance, the reduction of temperature was mainly due to the removal of the tube, which, as a foreign body in the wound, was a source of irritation.

I say, then, I cannot admit the claims of Lister's method; because, although undoubtedly very good results are to be obtained by this practice—better ones, no doubt, than most of those which were reached in former years, or are still in many places—yet that it has not shown results superior or equal to those which have been otherwise achieved; that

it has, moreover, grave drawbacks from which simpler plans are free; that if it fail, it is worse than useless by increasing the risk; and, therefore, that it has not established any title to supersede all other methods in the practice of surgery.

The principle of Lister's practice is an easily intelligible, and therefore very attractive, one to the public—I mean the more educated portion of it, even to men of scientific attainments, who have little or no knowledge of clinical surgery; for the one fact can be seen so plainly, while all other questions which are forced upon the attention of the surgeon are shut out from them.

But the principle on which it rests is a sound one; the logical outcome of established facts. Granted most freely and fully so far as in this direction it goes. But is every other plan of treatment without principle and opposed by logic? Let me recall your attention to some words which appear to me to be about the wisest which have been spoken on the subject. Last year, in his address, Dr. Roberts said: "We should probably differ less about the antiseptic treatment if we took a broader view of its principles. We are apt to confound the principle of the treatment with Lister's method of carrying it out. The essence of the principle, it appears to me, is not exactly to protect the wound from the septic organisms, but to defend the patient against the septic poison. Defined in this way, I believe that every successful method of treating wounds will be found to conform to the antiseptic principle. Take, for example, the other method of treating wounds which is sometimes compared in its results with Lister's method. What is this treatment but another way (only less ideally perfect than Lister's) of defending the patient against the septic poison? Because, if the surgeon succeed in providing such free exit for the discharges that there is no lodgment of them in the wound, either they pass out of it before there is time for the production of the septic poison, or, if any be produced, it escapes so quickly that there is not enough absorbed to provoke an appreciable toxic effect." Which plan, after all, takes most cognisance of all the facts before us? While it is true that the air contains germs which can so change animal fluids that if then they pass into the blood they may poison it; it is also true not only that fluids which have never been in direct contact with the atmosphere may be pent up far from the surface in various parts of the body without infecting the blood, but also that open wounds may be and are continually freely exposed to the air, yet remaining all the while healthy; the process of repair is carried on without let or hindrance, or any disturbance of the health; that fluids which bathe the surface of wounds may be saturated with the air and all it contains, and still escape before they have undergone any mischievous change; that, lastly, and not least, fluids may be changed to putridity on the surface, as in the interior, and yet not give rise to infection of the blood. In the discussion of this great question, it is too often implied, though not explicitly expressed, that if the unimpeded atmosphere be allowed to come into contact with wounds it produces mischief. And if it be said that, assuming the risk to be ever so small, why not adopt means which avoid it altogether? the answer is that it has not yet been shown that any such means exist. Blood-poisoning from wounds, though happily now in the best places extremely rare, still, under whatever mode of practice followed, does occasionally occur; and so it seems to me most reasonable to follow that practice which is shown to be, on the whole, safest by its results, it being, moreover, the simplest and least objectionable in other ways. In short, it is clear enough that Lister's plan, while it deals with one cause only of danger, provides by no means absolute security against this. When seriously tested by a bad atmosphere, it has hitherto obviously left a wide margin of mischief. Compare, for example, German and other statistics with our own. And when hygienic conditions are as favourable as possible, the risk from the single source of which this method takes heed is so far reduced that the good it can effect, beyond other measures in this direction, is not equivalent to the harm it does in other ways; as, for example, by irritating the wound, and so interfering with the process of repair.

Observe, if you please, that I am not saying that Lister's practice is to be in every case, and under all conditions, eschewed. I can very well imagine—nay, I know of circumstances where I have no doubt it would be far safer to employ it than to run the great risk of exposure. It is preferable to a pestilential atmosphere. But I submit that,

while in such places and with such arrangements, if operations must be performed or wounds treated, this, or something like it, should be adopted, it would be far better, wiser, more humane, to stop the practice of surgery altogether until these places had been made clean and reasonably pure. I refer again to the records from Germany. When we observe the rate of mortality before and after the adoption of Lister's method we are tempted to ask, What would have been the result if all possible care and forethought had been directed to the improvement of the sanitary state of the hospitals? Why should they have been, why are they still, so far behind others in this respect? You will remember the story of the Norfolk and Norwich Hospital as Mr. Cadge told it; and you are not likely to forget the ghastly sketch Lister drew after his visit to some of the continental hospitals only four years since. It is the evil of this, or of any special or peculiar plan of dressing, that it tends to limit our view, and, by fixing the attention on a number of details, each of which is made of prime importance, diverts the mind from the observance and consideration of far larger questions. Yet, notwithstanding the veil which has for a time been drawn before the eyes, there are already signs that the field of vision is extending. It is now many months ago that I read of a distinguished German professor using, as he tells us, extraordinary precautions: "That on an operation morning he gets up early, and washes himself all over; that his assistants wash themselves; and that the patient is also washed"; and although a famous Scotch surgeon, who relates the story, adds, "Surely all these washings are unnecessary," let us hope that, in interests besides those of surgery, the expectation at least of an operation may become of daily occurrence. We cannot, indeed, render the air absolutely or "optically" pure for the practice of surgery; but I think, under fairly favourable conditions, and with the means at our command, operations may be performed and wounds treated in an atmosphere not so impure but that, on the whole, the least risk is run by the practice I have ventured to advocate.

One word farther. I have spoken without reserve—as I take it I was bound to do if I spoke at all—of this now famous plan of treatment. By this I think I have shown the truest respect for the author of it. If I esteemed the practice of Professor Lister less, it would have been easy to offer him the homage of flattery, to congratulate him on his renown. It appears to me that I have evinced more regard for his authority, and placed a higher estimate on his work, by studying to the best of my ability the method he has introduced; by not expressing an opinion adverse to it in public, or from a position of responsibility such as this, until my conviction had grown clear and strong; and then I think I best mark my appreciation of his purpose by thus speaking out freely and fully. And though I am thus—not on principle, but in practice—opposed to him and many others whose ability and knowledge I admire and respect, I know very well that on a yet greater issue—the advance of surgery—we are heartily together; and, with unfeigned diffidence of my own judgment, I have yet farther consolation in the assurance that, if I be in error, these words of mine, even from this place, will prove no serious obstacle to the progress of truth.

Whatever defects may be charged against surgeons in the practice of their art, indisposition to accept new ideas, or lack of zeal in testing new proposals, cannot be reckoned among the number. And if in some the desire may appear to be excessive, it must be remembered that this is the natural outcome of discontent at the inadequacy of the resources they can at present command, and that such dissatisfaction is the parent of progress and improvement. A curious list, indeed, might be drawn up of the numerous novelties which from time to time have been introduced into surgery, and which, after attracting much attention, have been tried and found wanting. And if it so happen that this particular mode of dressing wounds should share their fate, still, like many others, it will have served some useful purpose; for it will, at all events, have helped largely to fix the attention of surgeons on a great source of danger from wounds. Nor is it perhaps likely to be superseded altogether by any plan of management which does not include among its chief objects the reduction of this risk to the utmost extent possible. Henceforth, no doubt, as the result of all the attention and discussion which have been given to this matter, the words cleanliness and purity will have a

wider, deeper, fuller significance for the surgeon. Hospitals and all institutions where the practice of surgery is carried on will soon, let us trust, be no longer open to the shame of even a suspicion of their states. They must not only be made free from all doubt that in their wards mischief may be fostered; but they must offer year by year in their records the surest guarantee that they are the safest places for patients. At present, in the worst, antiseptics are the only means employed for counteracting this gigantic evil; and its proportions may, perhaps, in some degree, be measured by the lavish manner in which antiseptics are consumed. But, after all, they fulfil their purpose but imperfectly, and are themselves not free from evil. Is it rash to affirm that the future practice of surgery will be most successful when it is carried on, not where antiseptics are most largely used, but under conditions least in need of antiseptics? Nay, is not this so now?

The study of blood-poisoning: the attention which of late has been directed from all sides on this great subject must prove of advantage to surgery in another way. For some time past, and to the prejudice of our profession, a wall of partition between medicine and natural science has been gradually built up. Physicians and surgeons finding enough, and more than enough, to do in their own immediate work, have of late years passed by the study of natural science, even that branch of it which most immediately concerns them—physiology or biology—with hardly a glance. And the loss from this, which was formerly allowed to be considerable, comes now to be actually questioned in some quarters as a fact. Nay, those who have never made any effort to find opportunity for this pursuit are wont to assert boldly the uselessness of it, and speak of it plainly as waste of time. The study of blood-poisoning in its present form has effected for us in our profession this great good: it has led us back into paths which have been too long untrodden, and forced upon many of us, in a most attractive way, some little knowledge at least of the first principles and leading facts of biology. It has, at all events, in great measure imposed silence on those who have been accustomed to talk loudly of what they call practical work, and to meet every inquiry not likely to pay with the vulgar version of *Cui bono?* And while, on the one hand, we have been thus forcibly reminded that surgery can never, without degradation, be divorced from physiology; on the other, this fertile field has proved to be common ground on which natural philosophers and surgeons may with mutual advantage, and in furtherance of the same immediate result, work together. It is true enough that no progress of any kind can be made in natural science without advantages in which medicine and surgery must always largely share; but still it is something just now to have a subject like the present one, in which the truth is made so plain upon the tables that he may run that readeth.

And it may be remarked that surgery, while it works in this direction, fulfils its highest purpose, for it aims at the prevention of disease. Heretofore our art has not escaped the reproach that, whatever it may have effected in the way of relief or cure, it has done little or nothing in the work of prevention. But what shall be said of the progress which has been made in averting the occurrence of blood-poisoning; in preventing the most fatal of all affections, which waits alike upon accidental wounds and the surgeon's own work? In accomplishing so much, it has not only thrown light over one of the darkest regions of pathology, but also, by reflection, on the laws which govern health and life.

DUELS OF GERMAN STUDENTS.—These seem to be more frequent than ever, and the authorities are trying all they can to put them down. They are not able to prohibit them, for there is no law by means of which they could interdict students from hacking and scarring their faces, such mutilations being quite voluntary. They confine themselves to endeavouring to render these encounters less easy, by diminishing the number of localities where it had been customary to allow them to take place. Thus the authorities of Leipzig have just issued to the keepers of hotels and taverns, over which they have control, a formal prohibition to allow duels to be fought by students on their premises under a penalty of 150 shillings; and the police are ordered to see that this edict is strictly executed.—*Union Méd.*, July 22.

ORIGINAL COMMUNICATIONS.

THE TREATMENT OF UTERINE FIBROIDS
BY ERGOT.(a)

By G. ERNEST HERMAN, M.R.C.P. Lond.,
Assistant Obstetric Physician to the London Hospital.

THE use of ergot for the purpose of making the uterus contract, and thus checking uterine hæmorrhage, has long been familiar to the profession; and it therefore has probably often been given in cases where such hæmorrhage was brought about by the presence of a fibroid. But this occasional use of the drug for the temporary relief of an urgent symptom is not the subject of the present communication. That which I propose to consider in this paper is the prolonged, regular administration of ergot for weeks or months, not merely during the presence of symptoms, but continuously; with the object of procuring either the absorption of the growth, or at least a cessation of the symptoms caused by its presence. I purpose to examine the published evidence of the value of this mode of treatment; to ask your notice of the results which I have myself obtained from it; and from my own experience and that of others to arrive at some conclusions as to the place which this treatment should take in our resources.

The remarkable diminution in the size of uterine fibroids which sometimes follows the administration of ergot was first pointed out (so far as I can ascertain) by Dr. Gairdner of Glasgow(b) in 1864. His patient suffered from hæmorrhage so profuse as to make it necessary to plug the vagina. She had a tumour, the dulness caused by which reached to the umbilicus, and which was "soft and semifluctuant." She was given one dose of ergot (twenty grains) in the form of infusion. This dose was followed by pain, which lasted ten or eleven days, and was quite different from anything she had felt before, except labour pains. The tumour, instead of "soft and semifluctuant," became firm and solid. Dr. Gairdner says—"The solidification of the tumour was quite apparent to all, and those who had most accurately observed it considered that the diminution in bulk might be about one-third at the time the patient left the house" (which was three months after the dose of ergot). Dr. Gairdner draws the following conclusion from the case: that "a dose of ergot of rye may not only restrain hæmorrhage, but bring about a more or less permanent solidification of the tumour, together with marked diminution in its size."

This case, however, does not appear to have been much noticed; and the extensive use which has recently been made of ergot in these cases seems due to a series of cases published in 1872 by Hildebrandt of Königsberg.(c) His first and most striking case was that of a patient aged thirty-three, suffering from hæmorrhage, leucorrhœa, and pain. A uterine enlargement, which Hildebrandt had no doubt was due to an intra-uterine fibroid tumour, reached to the umbilicus; it was elastic in consistence, and smooth and rounded on the surface. Various kinds of treatment had been tried without benefit. She was given a subcutaneous injection of ergotin daily for fifteen weeks, with occasional intermissions during the menstrual period. Week by week the uterus got smaller, and at the end of treatment it was no larger than the uterus of a woman who has borne several children usually is. In another case, a tumour reaching to the left lower ribs became, after 120 injections, so much smaller that it only attained the umbilicus. He gives seven other cases, in all of which the diagnosis was, in his opinion, quite beyond doubt. Three of them were about the climacteric age, two much below it (twenty-four and thirty-one), and the age of the others is not mentioned. In two cases the treatment could not be persevered with, in one by reason of the pain caused by the injections, in the other on account of toxic symptoms. In the other cases injections of ergotin were administered daily for periods of from one to three months. In all there was improvement in the symptoms. In one a sub-mucous tumour became polypoid, and presented at the os uteri. In the others, Hildebrandt thought that the fibroids had become smaller, though he was not able to state precisely

the amount of diminution. This author has since then published a further series of nineteen cases.(d) Of these, thirteen were below the climacteric age, three about or past it, and of the others the age is not stated. In one case, a tumour reaching to the umbilicus, after fifty injections was reduced to the size of a uterus three months pregnant. In another, a uterus, the summit of which was an inch and a half above the umbilicus, became, after fifty injections, so much smaller that its highest point was three-quarters of an inch below the umbilicus. In four others the treatment was followed by diminution in the size of the uterus, and relief to the symptoms; but in them the amount of diminution is not stated in so definite a manner. In eleven cases there was little, if any, lessening in the size of the tumour, but considerable improvement in the symptoms. In the other two (both below the climacteric age) there was neither beneficial effect upon the symptoms nor alteration in the size of the tumour. I may here remark that the reports of his cases given by Hildebrandt are of such a kind that the accuracy of the diagnosis, and the reality of the benefit derived from treatment, must in many of them be inferred rather from the position and reputation of the author than from the details given about the cases. I cannot help thinking that to this was largely due the incredulity with which his accounts were at first received in Germany.

Bengelsdorf(e) in 1874 published his experience of the ergot treatment, consisting of four cases. Two of them had passed the climacteric, and were not suffering at all from hæmorrhage; in them the ergot did not diminish the size of the tumour. In one, aged thirty-seven, pain and hæmorrhage were much lessened, but the tumour did not get smaller. The other, whose age is not mentioned, had a fibroid of the cervix. There was great improvement in the symptoms, and the tumour got smaller and harder.

Chrobak(f) gives nine cases treated by him according to Hildebrandt's method. Four of them had not reached the climacteric age; three were at or past it, and the age of the others is not stated. In one, on account of abscesses at the point of injection, and in another on account of toxic symptoms, the ergot could not be tolerated. In one case the treatment was followed by descent of the tumour, and its becoming so far polypoid that it could be removed. In two cases (one aged forty-four, the other aged fifty-seven) there was no hæmorrhage, and the ergot did not lessen the size of the tumour. In two, slight diminution in the size of the tumour was observed; and in five the symptoms were so much relieved that the patients thought themselves cured.

Leopold(g) has published twelve cases treated by ergot. Three of them had passed the climacteric, and had no hæmorrhage, and in them no effect on the uterine enlargement was noticed. The others were all below the age of forty-five. In four there was diminution in the size of the tumour, and improvement in the symptoms. In one case, a tumour reaching to the umbilicus diminished under treatment to the size of an orange. In another, a tumour as big as a uterus five months pregnant got so much smaller as hardly to reach beyond the symphysis pubis. The degree of lessening in the other two cases is not so definitely stated. In the remaining five cases the treatment was followed by relief to the symptoms, but no alteration in the size of the uterus. The number of injections given varied from 37 to 137.

Dr. Byford, of Chicago, in his address in obstetrics to the American Medical Association in 1875,(h) took this for his topic. He gives the results obtained from this treatment by many American practitioners, and communicated to him in private letters. The names of many of the gentlemen whose testimony he cites are not so familiar in this country that by mentioning them greater weight will be given to the statements in question than arises from their being quoted by Dr. Byford, therefore it is not necessary to give them. The cases which Dr. Byford has thus collected from others, and the accounts of which are not so exact as could be wished, are forty-nine in number. Of these, fifteen are reported as "cured"; but it does not appear that precisely the same meaning is in all these cases attached to that somewhat elastic word. I therefore take it in the sense least

(a) A paper read before the Hunterian Society, March 12, 1879.

(b) *Glasgow Medical Journal*, vol. xii., page 177.

(c) *Berliner Klinische Wochenschrift*, 1872, S. 297.

(d) *American Journal of Obstetrics*, vol. vii., 1875, page 529.

(e) *Berliner Klinische Wochenschrift*, Bd. xi., 1874, S. 21.

(f) *Archiv für Gynäkologie*, Bd. vii., 1875, S. 293.

(g) *Ibid.*, Bd. xiii., 1878, S. 182.

(h) *Transactions of the American Medical Association*, vol. xxvi., 1875 page 173.

likely to be incorrect—viz., “cure” from the patient’s point of view, which is, disappearance of symptoms. In twenty-three there is said to have been diminution in the size of the tumour, and relief to the hæmorrhages. In two, the losses of blood became less profuse, but there was no apparent effect upon the tumour, and in nine no benefit whatever followed.

Dr. Byford has himself treated nine cases in this manner. Three of these are in his table put under the heading of “cured,” which means that in one the tumour was thought to have disappeared, and in two was so far expelled that it could be removed. In three there was diminution in the size of the tumour and arrest of hæmorrhages; in one the losses of blood were lessened, but the tumour did not decrease in size; and in the other two there was no benefit, one of these two dying from hæmorrhage while under the ergot treatment.

Dr. Atthill(i) has put on record six cases treated in this manner. In one the injections caused so much pain that the treatment could not be kept up. In each of the other cases the hæmorrhage got less; but a diminution in the size of the tumour is not mentioned as having occurred in any of them. Dr. Atthill comes to the conclusion “that the hypodermic injection of ergotin is most efficacious in restraining uterine hæmorrhage dependent upon the presence of a fibroid.”

My own cases are eighteen in number.(k) Of these, one was forty-five years old, five were above that age, and twelve below it. In one case there was diminution in the size of the uterus. In eleven, relief to symptoms followed the administration of ergot while in attendance as out-patients. In three others, benefit accompanied the taking of ergot, combined with rest in bed. In the remaining three there was no appreciable improvement.

There are fallacies attending therapeutical inductions, which I shall consider further on. But the value of the accounts from which I have quoted seems to me to consist in this—that each of them purports to contain the author’s whole experience of the treatment. They form a total of 135 cases treated with ergot, of which 107 were benefited—a number, I think, too large to admit of the possibility of an accidental coincidence. In as many as forty-three out of the 135 cases the fibroids are said to have been diminished in size. But the want of precision of many of the reports affords ground for questioning the accuracy of this last statement, for it may be inferred from a vague report that probably the clinical examination was equally incomplete, while diminution in the size of the fibroid is a phenomenon only to be made out with certainty by very careful examination and measurement. I therefore go on to refer to some other cases, well authenticated and complete in detail, in which the lessening of the tumour was placed beyond doubt.

Fehling(l) has published a full report of a case in which the effect of the ergot was very marked. The patient was thirty-eight, and suffered from hæmorrhages, which had produced great anæmia and debility. Bilateral incision of the cervix, puncture of the tumour, and intra-uterine injections had been resorted to without effect. She had a uterine tumour, in form resembling the pregnant womb, and reaching three finger-breadths above the umbilicus. Its height from the pubes was 16·7 centimetres; its greatest breadth 13·25 centimetres. After two months’ treatment, thirty injections of ergotine having been given, the height of the tumour was reduced to 11·5 centimetres, and its breadth to 10·25 centimetres. Treatment was then left off for six months; at the end of which time the height of the tumour was 12·25 centimetres, and its breadth 10·5 centimetres. Treatment was then resumed, and fourteen injections given, but without further lessening in size of the tumour. As the tumour got smaller, the pain and hæmorrhage became so much less, and her general condition so much better, that Fehling says that on that account he should strongly recommend the treatment, even had no alteration in the size of the tumour taken place. Schwenniger(m) narrates the case of a patient aged forty, with a round, smooth, elastic uterine tumour, the summit of which reached 22 centimetres above the symphysis, its breadth being 17 centimetres. After forty injections, one

having been given daily, the height of the tumour and its breadth each measured only 12 centimetres. The patient then discontinued treatment. When seen three months afterwards the uterus was almost normal in size, the fundus reaching as high as the symphysis pubis. The absorption of the tumour was accompanied with complete relief to the symptoms. In this case the absorption of the tumour followed delivery, but in the report the date of the labour is unfortunately not given. It is, however, stated that the patient sought the advice of Schwenniger in consequence of the usual puerperal discharges not ceasing, as had been the case in her former labours; of her abdomen remaining large, and of her being unable to stand or walk for more than a short time. I think it may be inferred from this that it was not until after the period during which puerperal involution goes on most rapidly that treatment of the fibroid was begun.

Hennig(n) mentions a case in which, during treatment by injections of ergotin, according to the method of Hildebrandt, a tumour believed to be a uterine myoma “diminished week by week.” Dr. Matthews Duncan(o) gives a case in which a tumour, so soft as to give the idea of fluid, and the dulness caused by which reached an inch above the umbilicus, within forty-eight hours after treatment with ergot became so much smaller that the level of dulness was three inches below the umbilicus. This lessening in size of the tumour was accompanied with arrest of bleeding, which had before treatment been excessive, and with corresponding improvement in the general health. Dr. John Williams(p) gives a case in which a patient, aged thirty-five, had a tumour reaching three finger-breadths above the umbilicus, and causing continuous bleeding. After six weeks’ treatment with sclerotic acid, twelve injections having been given, the highest part of the tumour was on a level with the umbilicus, the hæmorrhage had ceased, and the general health was proportionately better. On two occasions, when the injections were suspended for a month, the bleeding returned; but when the remedy was resumed, the hæmorrhage again ceased.

(To be continued.)

A CURIOUS CASE—? HYDRONEPHROSIS.

By S. KYLE COTTER, M.D., M.Ch.,
Surgeon Army Medical Department.

THE following case may not be devoid of interest; it occurred at Pretoria in the Transvaal, in May, 1877, in a finely developed young man of about twenty-eight. He was admitted into hospital with all the symptoms of pneumonia affecting the bases of both lungs. Auscultation showed that the upper two-thirds of the lungs were not subject to much respiratory impairment, but there was a degree of dyspnoea present quite disproportionate to the extent of lung-involvement. He was treated by local hot and rubefacient applications, and diaphoretics of an antimonial nature. Soon after, strong cyanosis appeared, which continued to increase without any aggravation of the lung affection. On about the fifth day the entire surface of the body was the colour of the head of a baby which had been long held whilst the body was undelivered, and towards the end more darkly blue. The dyspnoea then amounted to orthopnoea, with protrusion of the eyeballs and intense distress and anxiety. All kinds of etherial and other stimulants were given freely, as well as diaphoretics, but nothing seemed to abate his sufferings or affect the cyanosis. The urine passed with ordinary freedom, and was in no way remarkable. He died on about the eighth day.

I found pneumonic engorgement of the lower third of both lungs; but the upper two-thirds, though catarrhally affected, were not so much impaired as to be incapable of fair action.

The search after the kidneys occupied a considerable time, and when found they were about the size of a large walnut or Brazil nut, and appeared to be the upper point—as if a piece was sliced off at about the upper fourth. From the pelvis of each extended a large thin and almost diaphanous bag, about the shape and size of an ordinary soda-water bottle, gradually contracting down the ureters, which latter were treble the natural diameter throughout. There were no signs whatever of inflammation in the bladder, ureters,

(i) “Clinical Lectures on the Diseases peculiar to Women,” fourth edition, 1876, page 133.

(k) *Medical Times and Gazette*, 1879, vol. i. pages 614 and 670, and vol. ii. pages 19 and 98.

(l) *Archiv für Gynäkologie*, Bd. vii., 1875, S. 384.

(m) *Berliner Klinische Wochenschrift*, Bd. xiii., 1876, S. 463.

(n) *Archiv für Gynäkologie*, Bd. v., 1873, S. 149.

(o) *Medical Examiner*, March 28, 1878, page 261.

(p) “Reynolds’ System of Medicine,” vol. v., page 764.

to the new Victoria University. Now, as it seems to us, the first actual reform needed is to make the four years' curriculum a reality instead of a sham. As matters now stand, the student hardly ever attends his school more than three years, and the educational course adopted in all London schools is distinctly founded on this principle. Most men take either the one or the other of two views as to the mode in which the study of medicine is to be approached. Either, as is nowadays in some instances the case, the student passes through a course of preliminary training in science, which at once fits him for beginning the real study of his profession, or he may come up after a period of study with a practitioner, which takes the place of the old apprenticeship. Some eminent authorities uphold this latter mode of beginning the study of our art; we confess we cannot agree with them, after a mature experience of both systems. But, suppose the school entered, the first two years are rigorously devoted to anatomy and physiology. Students are discouraged from attendance in the wards, and when the time comes, when they have passed their "primary," which cannot be earlier than the end of the second winter session, and sometimes a good deal later, they enter upon ward study, properly so called. A single year is devoted to the study of the real duties of their profession.

Very often at the end of this time, during which a student may never have been seen in the wards, he leaves his hospital, to act as an unqualified assistant, or, if he has adopted the plan formerly alluded to, may at once attempt to pass the final examination. There is one body such students commonly avoid—that is, the College of Physicians,—and we can easily understand the reason. The examination is, we believe, a perfectly fair one. It is the object of the examiners to find out how much a man knows, rather than what he is ignorant of. Thus it happens that we rarely, if ever, hear men complaining of being browbeaten, misled, or otherwise treated in an unfair manner, such as they say they occasionally elsewhere experience. Why, then, is it that the L.R.C.P. is not more sought after? We know the reason. A man can't make a fluke and go through—he must be thoroughly well up in his subject; and how can anyone do this with a year's practical study?

In many respects Dr. Andrew Clark's address has that delightfully vague character which is superficially so pleasant, but to the critic most uncomfortable. Does he complain of the too short curriculum? He does not throw out a single hint how best to lengthen it. He complains of chemistry and botany. Does he want them excluded from medical education? He says that the students are not compelled to attend in the wards. Has he ever tried to frame a scheme whereby such compulsion can be practically worked out? Again, he holds that students are not sent out properly equipped in point of knowledge—"a knowledge which should never fail upon an emergency, and be always ready for immediate use." Is Dr. Clark reasonable here? Do we ever send out a man thoroughly equipped in the way he describes? We fear not. True, the resources of instruction in our hospitals are vast, but they do not cover everything. The utmost we can do is to give the learner such general indications as will aid him in treating disease, and secure to him that careful training which will teach him to think and act for himself. Or let us put it thus: Has Dr. Clark himself yet ceased to be a student? But, apart from this, if we mistake not, Dr. Clark would have more of the practical instruction, less of the scientific. The only point on which we agree to differ is, that there should be more of both, and, as we have said, that cannot be till the four years' hospital course is insisted upon.

Nor do we think that Dr. Clark has hit upon a better strain when he denounces modern therapeutics. Here, again, we are in a transition stage. We have almost abandoned bleed-

ing, or rather, having almost totally abandoned it, we are tracking our way back by slow degrees to find out the cases where this is useful. That there are such, is undoubtedly the case; but we all, in the meantime, have more or less of the nature of doubters. The man who would come forward and report a case where bleeding did good would not be much further on in his way to professional reputation than the gentleman who reported a certain number of cases of exophthalmic goitre where iodine did no harm. Our old faiths have been destroyed; we have not yet acquired any very firm new ones. Physiological, or rather, as we ought strictly to call it, pathological, research has not helped us greatly. And, after all, it comes to this—Is not nutrition the basis of all the fundamental cures we make? We can burn and cut, and we can do what is much more important,—we can place things in such a way that the best results may be obtained in healing; but the basis of all is nutrition. There are many other things we can do. Take some of the simplest. We can modify the gastric secretion, so as to improve appetite and digestion; we can remove fecal accumulations; we can improve the state of the blood by giving iron, or we can steady the heart by giving digitalis. This, and much more we can do, but all must observe that the tendency is to employ fewer and fewer drugs, those employed being of greater strength. Dr. Clark also, we are surprised to note, refers to a fallacy we thought had been exploded. He talks of the natural history of disease, but in hospitals and such like places we never see anything of the kind. If we are to study the natural history of disease we must go into the back ways and bye-lanes where it is generated. How is it possible that disease should have a natural history when surrounded, as fortunately in one sense it so often is, by such little matters as kind nursing, fresh air, and sufficient warmth, wholesome food, and every care—better far than that which falls to the lot of many hard-working families higher in the social scale than those who commonly enter a hospital? Who can call such a condition of things a natural history?

But we are not going to quarrel with Dr. Clark on this ground. His address is too full of suggestive matter to be thus dealt with; for often it is the case that the elements of thought or forethought are more valuable than the well-excogitated remarks of the platitudinarian kind. Of the latter part of his address we need hardly say anything. Dr. Clark fears that the little liberty left us as regards experimentation on living animals is likely to be the object of a fresh crusade. Well, we hope not. Government by this time should know that the profession is a ticklish beast to handle.

MR. SAVORY'S ADDRESS IN SURGERY.

THE Address in Surgery at the British Medical Association was delivered by Mr. Savory. He chose for its subject a question which may be said to have occupied the foremost position in surgical discussions during the last few years, and it was treated with his characteristic eloquence of diction and clearness of style. "The prevention of blood-poisoning in the practice of surgery," is indeed at the present day the ambition of every true surgeon; and all will turn to an address bearing such a title, in the hope of obtaining from it both instruction and encouragement. Some will be pleased, and many, we venture to think, disappointed; for Mr. Savory has made it his endeavour to show, that while very excellent results are to be obtained in St. Bartholomew's Hospital by adopting what many will consider an old-fashioned method of treatment, coupled with the most scrupulous attention to cleanliness and hygienic conditions, we have no trustworthy evidence that a smaller, or indeed so small, mortality has ever been obtained by strictly carrying out what is known as the antiseptic system. Such

at least appears to be the pith of the address, which, however, deals at the same time with what are considered to be serious drawbacks in the latter, and great advantages in the former, method of dressing wounds. In short, Mr. Savory's advice would appear to be, to improve to the uttermost the hygienic conditions, and then to adopt some simple form of dressing—anything, in fact, almost, except the antiseptic.

We are disposed to pass over without comment Mr. Savory's remarks on the pathology of blood-poisoning, because he tells us that he is "considering the subject now only from a clinical point of view"; but it will be noticed that he touches on somewhat debatable ground when he gives it as his opinion that the conditions known as pyæmia and septicæmia differ from one another only in degree, and when he classes erysipelas along with them. We are the more inclined to support his views because it is clear that he is at one with those who subscribe to the germ theory, and with the supporters of the antiseptic system, in his belief as to the method in which the conditions which he includes under the head of blood-poisoning are brought about. At least, we so interpret the following sentence:—"The current belief—may I say the established fact?—is, that the agents of putrefaction exist in the form of solid organic particles, some so minute as to be beyond the range of the highest powers of the microscope, which float freely in the air, and are now commonly called germs, and which abound in decomposing organic matter of all kinds; notably, and this is of chief interest to us, in decomposing animal fluids." Holding, then, this opinion in common with the advocates of the practice to which he is opposed, Mr. Savory's line of argument appears, briefly, to be this:—The antiseptic system, while founded on a sound theory, is imperfect in practice, it does not succeed in obtaining the uniformity of result at which it aims; but cases of blood-poisoning occur in the hands of many surgeons well skilled in its details, and amply provided with faith in its powers.—Allowing the principle to be sound, the antiseptic system only attacks the question from one side; but, on the other hand, if a wound be maintained in a perfectly healthy condition, and all discharges be allowed to escape freely, the danger of absorption of putrid elements is minimised.—The antiseptic system is complicated and difficult to follow, and it involves frequent interference with the wound during the process of cure.—And, lastly, by other methods of dressing very good results are obtained, and healing is perhaps more rapid when a wound is suppurating than in one from which a serous discharge only is produced.

We are in complete agreement with Mr. Savory when he complains that no statistics of any value on the subject are at present before the public; it is, we think, greatly to be deplored, for example, that Mr. Lister's Edinburgh statistics have never been published. Little, if anything, is shown by the table given in the address, unless it be the one point already well known, that St. Bartholomew's Hospital is a remarkably healthy institution. Far more searching statistics must be given in order to test the point at issue. We want to know, for example, what operations actually are performed, and whether they are equal in severity with those which Mr. Lister himself is in the habit of undertaking; how many of the surgeons are carrying out the Listerian treatment, what the mortality has been in previous years, and so on? The questions suggest themselves whether, after all, if an attempt were made at the total exclusion of the *sources* of blood-poisoning alone, the 1.44 per cent., or whatever it may be, of deaths from this cause might not be avoided in the healthy precincts of St. Bartholomew's; and also whether Mr. Savory's plan of treatment would lead to equally good results with Mr. Lister's under less favourable hygienic conditions. If not, is it a

preferable one? Let us see what the treatment recommended is. Briefly stated, it is as follows:—Silver sutures, *one or two inches apart*; folded lint soaked in carbolic oil; then folds of dry lint, sometimes cotton-wool, and a bandage. This is to be changed at the end of forty-eight or twenty-four hours; but, be it observed, "if at the first dressing, or at any time afterwards, the discharge became at all profuse, or the surfaces did not remain in contact, or there were much tension or a blush at the edges, I should forthwith substitute a bread-and-water poultice for the previous dressing, and probably continue to employ this until at least the deeper portion of the wound had closed." The merits of the bread-and-water poultice are highly eulogised, and the comfort which the patient experiences from it—following, we may suppose, a previous state of discomfort—is dwelt upon; and these remarks are succeeded by others on the accumulation of fluid in the deeper parts of the wound (which is referred to as if it were of common occurrence), on the evils of the drainage-tube (to which Mr. Savory sees several objections), and on the advisability of syringing out, in some cases, the whole of the interior of a wound with water. Is it possible that Mr. Savory is really of opinion that the daily changing of a dressing such as that which we have described, and the syringing of the interior of a wound with water containing Condyl's fluid, or other potent antiseptic of the least irritating kind, involves less disturbance of the part than the changing of an antiseptic dressing; or does the following sentence hint at his idea of what an antiseptic dressing is? "Therefore it seems to me, for the employment of antiseptics from the first to become reasonable, the wound throughout its progress must be kept thoroughly under their influence." Such facts as these just hinted at, and such assertions as that free ablution with clean water, adequately used, is amongst the simplest, safest, best of antiseptics, make us doubt whether Mr. Savory is really familiar with the technical details of the system he attacks, or with the nature of the results which may be almost uniformly obtained by following it.

Returning now to the other points we have set down from the argument, everyone must agree that a healthy granulating wound is not prone to absorb the elements of putrefaction; but few, we imagine, would argue that such a healthy wound is really better for being bathed in a secretion that is undergoing putrefactive changes. Mr. Savory says that the antiseptic system involves a too exclusive attention to the prevention of fermentative changes, and detracts the attention of the surgeon from the sound and fundamental principles of the treatment of wounds. Surely the *tu quoque* is here admissible. Its strongest upholders will be the first to maintain that without a strenuous observance of such fundamental doctrines as the avoidance of tension, the provision of adequate drainage, and so on—yes, much more strenuous than that which was aimed at by our fathers—the most rigid adoption of the antiseptic system can only lead to failure and disappointment. The successful wrestler against the scourge of blood-poisoning, and, we may add, the most successful surgeon, will be one who, while he is fully alive to that half of the question which Mr. Savory has advocated with such skill and force, does not neglect the perfecting of the means for the total exclusion of the very possibility of putrefaction in a wound.

THE BRITISH MEDICAL ASSOCIATION.

THE British Medical Association has just completed its forty-seventh year of existence. From a small provincial association in its early years it has now become British-born in name and nature, and numbers among its 8000 members many of the leaders in medicine and surgery, metropolitan and provincial, of England, Scotland, and

Ireland. It is, however, clear that there is ample room for further improvement in almost every department as regards this annual gathering; and, as it seems to us, the subject will shortly have to receive very careful consideration at the hands of the Council, if the success, especially of the last three or four years, is to be still further enlarged or even maintained.

Lookers-on are proverbially clearer sighted than those taking part in a game. It is in this capacity that we shall venture on a few criticisms, and then offer some suggestions as to how the working of the Association may be facilitated as well as promoted.

The first point which struck us on reading the programme was the immense amount of work that had to be got through in the four days allotted to the meeting; and we were therefore the more sorry to see that one day out of the four was entirely lost as regards scientific work, so important an object of the Association. Would it not have been possible to have commenced the work of the various sections on Tuesday instead of on Wednesday? As it was, before and after the first general meeting, which was not held until three o'clock, members had nothing whatever to do, and were not a little disappointed in consequence. In small places like Cork it is difficult to fill up such an amount of spare time, and it is a great pity, with a large quantity of work to get through, that there should be time thus to lose.

Coming next to the sections themselves, we may say *en passant* that we were much pleased to see that in each one, in addition to the papers on general subjects, special subjects had been selected, and that papers had been invited from those who were thought to be specially interested in them. We hope that it will not seem ungracious to say that this arrangement only partially meets the difficulty. And for this reason the subjects selected were of such importance and breadth that the whole time allotted to the daily meetings of the sections might have been occupied, and ought to have been so occupied—by a discussion which would have been worthy the Association and the distinguished men who presided at them. If this had been so, what would have become of the immense number of general papers which had been prepared and sent in?

At future meetings may it not be well, in addition to the selection of a subject, to fix also on some special lines for debate? Might not an abstract of the papers be printed and circulated before the annual meetings; and could not the papers themselves, for the purposes of discussion, be condensed into the form of propositions, each backed up by such brief statements as the authors might consider necessary to substantiate them? Under these circumstances there would be no need to read the papers, and so much valuable time would be saved. We noticed that several of the special papers of the last meeting were brief—very brief—treatises on the general subject, instead of being facts or opinions for or against some of the moot points in connexion with the subjects. Other papers were records of surgical operations in which the authors were specially interested. Now, we submit that it is not well to discuss such papers; for it is impossible to follow an author into all the details of his individual cases; and hence one is obliged either to content oneself with congratulatory platitudes or to keep absolute silence.

To the majority of members attending such a meeting, a general discussion is much more interesting than the record of individual cases; for those who come from the larger towns and belong to hospitals, an interchange of views on general topics is a relief from the monotony of the learned societies which they can and do frequent at home.

Under all circumstances, therefore, it seems to us desirable to select subjects on which to receive papers, and to have

the abstracts of these papers circulated before the meeting. The subjects should be chosen as early as possible, and then finally, in order to secure a debate on the most interesting questions connected with the subject, some one should be deputed to formulate a series of propositions which should form the "points of departure" for future speakers. We believe that some such arrangement would give general satisfaction to members at large, and save others the disappointment of preparing papers which, in the present course of arrangements, cannot possibly be read.

It may be said that the preparation of papers—even on the risk of not being read—does good indirectly, by inducing men to work at their cases with a view to publication. We agree that it does. Then let it be understood that general papers can only be received for reading provided the special subjects do not occupy the entire time of the section.

One more word on this subject, and we have done. Much disappointment is expressed at the length of time which elapses before many of the papers are published. We would suggest the publication of a special number of the *Journal*, a sort of scientific supplement, as early after the annual meeting as possible. This supplement should contain the whole of the proceedings, papers, and reports. If it were found to be beyond the means of the Association a small extra charge might be levied for it. The regular contributions to the *Journal* are already very large, and as the members increase in numbers, these contributions will also increase, so as soon to become a real incumbrance.

There is one other subject on which we will venture a few remarks. It is the hotel accommodation for the members. Not unnaturally the heads of the Association generally become the guests of the local authorities, and hence they know nothing of the great difficulties which ordinary members experience in this, to them, all-important matter of hotel accommodation. For instance, in Cork there are only two hotels of any importance: one of these has such a regular succession of visitors that the proprietors altogether decline to let their rooms in advance, and many intending visitors who wrote some weeks ago in order to secure accommodation received the answer that their demands could not be complied with. In a city like Manchester even there was considerable difficulty in obtaining rooms near to the place of meeting. Hence, therefore, the importance, when selecting a place of meeting, of knowing what hotel or other *suitable* accommodation the city can provide. This will specially apply to a place like Cambridge, for its central position, its easy access, its old university associations, the popularity of the President-elect, will no doubt cause a very large attendance of members at the next annual meeting. Unless the colleges can supply a quota of rooms, we cannot imagine where the members can be stowed away. It will be conceded, we think, that this is a point well worthy the consideration of those who wish the meetings to be *wholly successful*. As it is desirable to move from place to place, we cannot always have the facilities which a place like London or Liverpool, for instance, can without pre-arrangement always afford. During the present meeting we heard of a plan which deserves to be more widely practised. A number of gentlemen living in the same district, or acquainted with each other as old college acquaintances, clubbed together, and chartered bedrooms in the same hotel. There they secured also a common sitting-room where meals could be had together, and which served between whiles as a common meeting-ground, where they could exchange views and renew old associations. An additional pleasure was thus added to that of taking part in the work of the Association. We think this example might be followed with great advantage. But, except in the colleges, we do not know how it could be carried out in Cambridge.

In thus candidly addressing ourselves to the managers of

the British Medical Association, although somewhat critical in our remarks, we think we are best studying its interests, both scientific and social.

THE WEEK.

TOPICS OF THE DAY.

THE public meeting of the working-men of the metropolis announced to be held at Exeter Hall, to insure a more satisfactory water-supply, took place last week, under the presidency of Mr. Thomson Hankey, M.P. In accordance with promises previously given, Mr. Hankey was supported by the Bishop of London, Sir Charles Dilke, M.P., Cardinal Manning, Dr. Lyon Playfair, Mr. John Holms, M.P., and several others. A long discussion on the subject ensued, and Sir Charles Dilke moved—"That the present water-supply of London is unsatisfactory, both in the quality of the water and in the cost." Dr. Lyon Playfair, in a very humorous speech, moved—"That these evils cannot be remedied except by creating a new authority and administration by Act of Parliament." He thought the existing water companies should be liberally treated, but they should be satisfied with a fair return for the capital they had embarked. And finally Mr. J. F. Bateman, civil engineer, moved—"With a view to urging this policy upon her Majesty's Government, it is expedient to form central committees in the ten metropolitan boroughs, by which the subject may be pressed upon the vestries, and brought before Parliament by petitions." All these resolutions were carried unanimously, and in seconding one of them Cardinal Manning reminded his hearers that in the way of water-supply we were still in the same position we were thirty years ago. If Parliament desired to shelve a subject they either appointed a Select Committee or a Royal Commission to inquire into it, and he thought the time for committees and commissions on this question had passed away. He advocated continued agitation as the only means of obtaining a proper system of supply.

In the case of a prisoner recently tried at the Central Criminal Court for the manslaughter of a child, she (the prisoner) having been the manageress of a Home for Friendless Children, the jury returned a verdict of "Not guilty"; but it was very pertinently remarked that it would be well if all these Homes were placed under Government supervision. A careful consideration of the medical evidence adduced upon the trial confirms this view. Dr. Long, medical officer of the Greenwich Union, deposed that on visiting this Home and examining the children he observed no indication of medical treatment; the inmates were pale and flabby, and seemed as if they had had no flesh food; in addition, he did not consider the means taken to lodge, clothe, and feed children of that age either adequate or sufficient. The periodical visits of a Government inspector would have rendered such an inappropriate state of things impossible, and it is to be hoped that this sad case will prove the means of calling the attention of the Legislature to the subject. But how many children are unfortunately no better off when under the charge of their own parents! With them we cannot interfere, but we have a right to demand that all quasi-charitable concerns should be well looked after, whether at Teignmouth or at Deptford.

The Board of Trade annually reports—certainly not to the satisfaction of the travelling public—the casualties which have occurred on railways in the United Kingdom during the foregoing year, and last week this long list of lives sacrificed was made public. The total number of persons returned as having been killed on railways in 1878 was 1053, and the number of injured is stated to have been 4007. Of these, 125 persons killed and 1752 persons in-

jured were passengers. Of the remainder, 544 killed and 2003 injured were officers or servants of the railway companies or of contractors; and 385 killed and 252 injured were trespassers and suicides, and other persons who met with accidents at level crossings, or from miscellaneous causes. The proportions of passengers killed and injured in 1878 from all causes were, in round numbers, one in 4,520,000 killed, and one in 322,000 injured. These figures show an improvement on the year 1877, when the numbers were one in 4,377,727 killed, but only one in 429,924 injured.

Last week, Mr. S. J. Smith, C.E., one of the inspectors of the Local Government Board, held an inquiry at Chelmsford with reference to an application from the Chelmsford Local Board of Health for permission to borrow £20,000 to carry out new sewerage works, and also with reference to applications of the Rural Sanitary Authority to borrow the sum of £11,750 for the sewerage of places adjoining the town. Besides taking evidence, Mr. Smith inspected the district proposed to be improved, and will furnish his report to the Local Government Board.

Dr. J. W. Tripe, the Medical Officer of Health for the Hackney District, has recently reported to the Local Board the occurrence of a severe outbreak of diarrhoea in the neighbourhood, which, after much inquiry, he has traced to the eating of a quantity of dripping purchased in the street, and partaken of by twenty-nine persons, all of whom were more or less severely attacked.

At the recent meeting of the Metropolitan Board of Works, amongst other business transacted, it was agreed, as a further trial of the new system of electric lighting, that four electric lights, furnished by the French Electric Society, should be placed in the board-room on standards erected in convenient positions, and one light over the principal entrance of the building. A letter was subsequently read from the Home Office, acknowledging the receipt of a memorandum from the Board, setting forth the difficulties which had been met with in carrying out the provisions of the Artisans' Dwellings Act of 1875, and intimating that the statement would have careful consideration. It is, indeed, announced that in his new Bill to amend this Act Mr. Cross proposes to meet the difficulty of the clause which imposes on the local authority the duty of seeing that any improvement scheme for an unhealthy district shall provide, for the accommodation of as many working-people as are displaced, in suitable dwellings, which, unless there are special reasons to the contrary, must be situated within the limits of the area to which the scheme applies, by giving to the confirming authority "the power of dispensing wholly or in part with this provision where it is proved that equally convenient accommodation, can be provided at some other place, and that the required accommodation, if not already provided, is forthwith about to be." The "confirming authority" referred to is in the case of the metropolis the Home Secretary, and in the case of other places the Local Government Board. The Bill also seeks to empower the local authority to appropriate any lands that may for the time being belong to them, towards providing accommodation for workmen displaced by an improvement scheme, or to purchase by agreement any further lands that may be convenient for the purpose.

From a return just published it appears that since the issue of the last Parliamentary paper relating to scurvy on board British merchant ships, fifty-five reports have been made to the Board of Trade upon 206 cases of scurvy. In fifty-nine cases (including three deaths) the disease was attributed to lime-juice not having been properly served out, or to inferior quality of the same, or to the men refusing to take it, or that there was none on board, or that it ran short. It fifty-five cases (including one death) the disease was caused by

the length of the voyage, or by the prolonged use of salt provisions, and bad accommodation, etc. In fifty-four cases (including two deaths) the disease was due to bad provisions or want of vegetable food, or bad or insufficient water, or use of "cook's slush." In fifteen instances the owners or masters of the ships were either prosecuted and fined, or cautioned, for neglecting to comply with the Acts. In three instances it is proposed to institute further proceedings on the arrival of the ships in this country. A second return shows that 129 reports, relating to more than 188 cases of scurvy, have been made to the Board of Trade by their officers, in which formal investigations were not considered necessary. The requirements of the Merchants' Shipping Acts had been in almost every instance complied with.

An extraordinary case of trance is reported from Hereford. A girl, eleven years of age, was for some days past considered to be dying, and was finally laid out for dead. Arrangements were made for the funeral, but when some friends came to look at the supposed corpse, the covering of the body was noticed to move. The child was then found to be alive, and medical assistance was for the first time procured. Dr. Whitfield and Dr. Smith administered restoratives, and there is at present a likelihood of her ultimate recovery. An experienced nurse, who had been much with the child during the last month, had the charge of her when she was assumed to have died, and arranged the laying-out. The case requires to be swallowed *cum grano salis*. We have not yet forgotten an earlier Welsh Fasting Girl, whose life was sacrificed to greed and stupidity.

We regret to hear that yellow fever is this year again rapidly spreading in America, and that cholera is not unknown in the East. As to yellow fever, would our readers refer back to the interesting letters of our Philadelphia correspondent last year.

The official returns made by the Irish Registrars, stating the number of deaths registered in Ireland during the second quarter of the present year, contain the following entries:—The Registrar of Coolmountain, Dunmanway, says: "A death has been registered in the past quarter at 117 years of age, and a death at 105; the latter I know to be correct, but I have my doubts about the other, although my informant insisted upon registering the death at that age." The Registrar of Glendermot, Londonderry, reports: "The longevity in this district, shown in the quarter's returns, is remarkable; there was one undeniable case of death occurring at the great age of 107 years. Into this case I personally inquired, and found my informant correct; the deceased was a farmer in easy circumstances, and of regular habits."

For the sake of sound medicine we are glad to hear that Dr. Hilton Fagge has been appointed Examiner in Medicine in the University of London in the place of the late Dr. Murchison.

THE LONDON WATER-SUPPLY.

We are glad that Mr. Fawcett has had an opportunity of bringing forward his motion as to the London water-supply, and we are equally glad that he did not need to press it to a division. Nothing, in point of fact, could have been in better taste than Mr. Cross's behaviour in the case. He makes no pledge beyond the fact that a thorough inquiry shall be made into the whole subject before the next meeting of Parliament. But we are promised something more, which a good many of us will hail with delight, viz., that the Board of Works is to have nothing to do with the scheme, for, as Mr. Cross puts it neatly, the water-supply area extends far beyond their boundaries. Nothing could have been more absurd than the scheme propounded by that body last year, founded on the reports of a

mechanical engineer, a pump-maker, and the distinguished contriver of the sewage outfalls. It was about time to deal with matters in a different fashion. Let us hope that we have heard the last of Welsh water, or the tapping of the Cumberland lakes. These are all engineers' jobs, many of whom would be ready to undertake to condense the vapours of the moon, if they existed. Each one wants to out-Herod Herod. Let us confine ourselves to things nearer home; it is London which is suffering, not the inhabitants of Laputa. Meanwhile we are grievously afflicted by the water companies, who make us pay exorbitant rates for bad water; and in this direction the hint of Mr. Cross will not be thrown away, that they are not to expect, if the works are to be taken over, an exorbitant rate of purchase and so on for their supposed invested capital. The simplest plan would be not to take them over at all, but to allow the existing shareholders a reasonable interest on the capital invested—a kind of stock which would be as good as Consols. The whole subject is worth referring to again.

DEATH OF THE REGISTRAR-GENERAL FOR IRELAND.

WITH deep regret we have this week to record the unexpected death of Dr. William Malachi Burke, the Registrar-General for Ireland. The sad event occurred last Wednesday morning, the 13th inst., after an attack of pleuro-pneumonia of a very few days' duration. Dr. Burke's demise will be a serious loss to the department over which he had presided during the past few years. Up to the time of his appointment, just three years ago (in September, 1876), the registration of births and deaths in Ireland, which commenced only in 1864, may be said to have "languished for many years." It is true that Dr. Burke had for a long time held the office of Medical Superintendent of Statistics at the General Registry Office, but in that capacity his undoubted talents had but little scope to develop a more perfect system of registration in the sister country. Dr. Burke was, since 1842, a Member of the Royal College of Surgeons of England, and in 1863 he became a Fellow of the King and Queen's College of Physicians in Ireland. He was formerly physician to his Excellency the Lord Lieutenant of Ireland, and at the time of his death still held the appointment of Visiting Physician to Steevens' Hospital. He was much respected and beloved, and his genial, kindly manners won him hosts of friends.

SANITARY IMPROVEMENT IN NOTTINGHAM.

In preparing his annual report on the health of the borough of Nottingham for the year 1878, Dr. Edward Seaton, the medical officer to the authorities, has considered it desirable to furnish some general account of the leading sanitary conditions of the new area which has been acquired by a recent extension of the borough boundaries, and the consequent alteration of the district over which his duties extend, and his remarks point conclusively to the fact that the sanitary education of the present day is beginning to have its due effect on the preventable mortality of past times. In the airy and well-ventilated new town the mortality in proportion to population was only 17.6 per 1000; in the old town it was as high as 31.2. The full significance of these figures was made more apparent by a contrast of the deaths at different ages and from special diseases. The proportion of deaths under one year of age, which was equal to 5.3 per 1000 of the population in the new part of the town, was 9.1 in the old town; those from zymotic diseases were 3.2 and 7.1 respectively, from phthisis 1.9 and 3.3. The subject of house-accommodation in relation to health, Dr. Seaton says, is one that assumes considerable importance in Nottingham, owing to the large proportion of back-to-back houses it contains. Hitherto the Health Committee has directed its efforts

chiefly to the purification of the atmosphere about these dwellings, by the removal of sources of excremental pollution. The improvements in construction, sanitary regulation, demolition of houses unfit for habitation, and the substitution of others of a better class, have also engaged their attention; but the action in this direction has been more of a tentative character; its further extension is now greatly needed. The whole of the details contained in this annual report show that a very large amount of sanitary work has been accomplished in the district during the past year, and it is satisfactory to learn on Dr. Seaton's own assurance that but little opposition has been met with on the part of owners of property in his endeavours to improve the health of the neighbourhood.

QUEKETT MICROSCOPICAL CLUB.

THE following gentlemen have been elected office-bearers for the ensuing year:—*President*: T. Spencer Cobbold, M.D., F.R.S., F.L.S., etc. *Vice-Presidents*: T. H. Huxley, LL.D., F.R.S., etc.; John Matthews, M.D., F.R.M.S.; A. D. Michael, F.R.M.S.; Charles Stewart, M.R.C.S., F.L.S., F.R.M.S. *Hon. Treasurer*: F. W. Gay, F.R.M.S., 113, High Holborn, W.C. *Hon. Secretary*: J. E. Ingpen, F.R.M.S., 7, The Hill, Putney, S.W. *Hon. Secretary for Foreign Correspondence*: M. C. Cooke, M.A., LL.D., A.L.S. *Committee*: W. H. Gilbert; F. A. Parsons; B. W. Priest; T. Spencer, F.C.S., F.R.M.S.; Frederick Oxley; Ferdinand Coles, F.L.S.; Arthur Cottam, F.R.A.S.; Edward Dadswell; J. W. Groves; J. W. Reed, F.R.G.S.; J. C. Sigsworth, F.R.M.S.; T. C. White, M.R.C.S., etc. *Hon. Reporter*: R. T. Lewis, F.R.M.S. *Hon. Librarian*: Alpheus Smith. *Hon. Curator*: Charles Emery. *Excursion Committee*: F. W. Gay, F.R.M.S.; Frederick Oxley; W. W. Reeves, F.R.M.S.; T. Rogers, F.L.S., F.R.M.S.; James Spencer, F.R.M.S.

THE ANNUAL REPORT OF THE PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS.

At the meeting of the Council of the Royal College of Surgeons, held on July 10, the retiring President, Mr. Simon, presented his report on the affairs of the College. Hitherto the annual report had been presented at the Council meeting held in June, but it had been judged more convenient that each annual report should close with the end of its respective official year, in July; and this year's report consequently extends to a period of thirteen months. It consists for the more part of an epitome of the business transacted at the meetings of the Council, and therefore does not contain much that has not already been made known to our readers.

In speaking of the presentation of the memorial bust of himself to the College, and its acceptance by the Council, Mr. Simon gracefully says, "A presentation and acceptance, regarding which, since I am here officially called upon to record them, I beg leave respectfully and gratefully to add, that I count them as of the highest honours and rewards of my professional life."

In March the Council received from the "Committee of Reference" a communication bringing under the notice of the Council further important proposals with regard to the scheme of joint examinations for England; but the Council decided that in the then state of the question of legislation on these matters it would be useless for the Medical Authorities to attempt any final consideration of the proposals of the Committee of Reference, and adjourned the consideration of the subject.

At the same meeting the Council received the memorial from forty-nine teachers of anatomy and physiology in the English medical schools, suggesting some changes in the primary examinations of the College; and the Council,

"aware that its Committee on the Examinations in Anatomy and Physiology had undertaken to consider with the Board of Examiners the system of those examinations," referred the memorial to that Committee; and afterwards authorised the Committee to receive, on behalf of the Council, a deputation from the memorialising teachers. At the Council of June 12 the Committee reported in favour of the separation of anatomy and physiology in the primary examinations for the membership and fellowship, and recommended that the next nomination of examiners should be made on that principle. This recommendation was approved, and, having been confirmed at an Extraordinary Council held on June 19, it was further resolved that anatomy and physiology be of equal value in the primary examinations for the membership and fellowship, both in the written and in the *viva voce* parts of these examinations; and it was referred to the Board of Examiners in Anatomy and Physiology to settle, with approval of the Committee on those examinations, the details for giving effect to the new system. When dealing with this subject Mr. Simon adds that while the Committee "judged it proper that these subjects should in future be separated in the examinations of the College, as they have long been strictly required by the College to be separated in the teaching of the schools, the Committee not only had no shadow of dispraise to suggest with regard to the manner in which the other system (to the extent of its capabilities) had been administered by the Board of Examiners, but bore particular testimony to the able and efficient manner in which the Board, administering that system, had represented the intentions of the College."

The memorials transmitted to the Council by the General Medical Council from teachers and practitioners of ophthalmic surgery, and from the Obstetrical Society, are referred to; and while stating that the Council did not see any present occasion to alter the requirements of the College in either of the matters in question, Mr. Simon observes that it was at the same time understood "that, whenever the English licensing authorities shall agree to give effect to their scheme of joint action, the Council will have to discuss as a whole the regulations which have been proposed with regard to education and examination under the scheme, and must then necessarily reconsider, in consultation with the other authorities, all such questions of quantity and proportion in education and examination as those which have been raised in those two memorials."

In concluding his report, the President remarks that during the past year, as during others which have preceded it, "much which the Council would have wished to do, either singly or in conjunction with other bodies, to improve the tests of qualification for persons desirous of entering on the practice of surgery, has been made impossible by circumstances which the College of Surgeons cannot control." And, after speaking of the abortive efforts to pass a Medical Acts Amendment Bill, he suggests that "if existing obstacles to proper general legislation for the profession cannot with the present great effort be surmounted," the Council of the College should, definitively abandoning, at least for many years, all expectation of the larger sort, and deprecating further demands in that direction, proceed to concentrate their endeavours on the perfecting of their own corporate structure and working, and beg of her Majesty's Government to give their aid to such amendments of the collegiate charters, and by-laws as may be found useful for this separate public purpose.

SUBSTITUTE FOR HANGING.—The *New York Medical Record* (June 21) states that Dr. Packard has given this subject much consideration, and has come to the conclusion that death should be produced by carbonic oxide. He proposes that the condemned person should be placed in a small air-tight room, the air of which should be rapidly replaced by carbonic oxide gas, when death would take place in the most rapid and painless manner known to science. In ten minutes the body could be removed from the room to be identified by the jury. The editor of the *Record*, however, observes that "various investigations seem to indicate that hanging may be made the most humane and effective method of execution, if properly carried out. But it is certain that those who superintend the matter in our country need more knowledge and skill in regard to the application of this judicial procedure."

FORTY-SEVENTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

(From our Special Correspondent.)

CORK, Wednesday, August 12.

THE real work of the sectional meetings began on Wednesday afternoon. In that of Surgery, after an interesting address from its President, Professor Tanner (which dealt chiefly with local matters and local names, especially of times past), Dr. Sayre, of New York, opened a discussion on "The Diagnosis and Treatment of Joint-Diseases in the Various Stages." As is already well known, Sayre advocates a purely traumatic origin for all forms and cases of joint-disease. He fully allows that constitutionalism may act as a modifying agent; but it cannot, however strongly pronounced, lead to joint-disease, except through or on account of traumatism. The mode of its occurrence is often exceedingly obscure; but he believes it (traumatism) is present, even when we cannot trace it. He supported his views with all that vigour and graphic power of description which are peculiarly convincing for the moment, but I do not think he carried anything like conviction to the minds of many of his hearers, although few really differed from him. In such a discussion, with only a few minutes to speak, oppressed with the knowledge that a vast mass of work has to be got through, it is not possible to fairly discuss such an obscure subject as this, and it is not surprising, therefore, that this part of the pathology of joint-disease did not gain much from this day's proceedings. In the Medical Section, Dr. Andrew Clark, I need hardly say, gave an able and an eloquent address. He touched chiefly upon three points: the present state of medical education, the position of therapeutics, and experimental inquiry in medicine. The address will be found elsewhere in your columns, and therefore I need not do more than say that it gave the most unlimited satisfaction to a crowded meeting. Dr. H. Bennet then introduced the special subject for discussion—"The Value of Mountain-Air in the Treatment of Phthisis." He contended that there was nothing specific, and attributed any benefit that was got to the "fresh air" which was thus secured. Dr. Allbutt, who followed on the other side, advocated a peculiar "aseptic" property, rather than its coldness or dryness. The debate decidedly languished, and, as such, cannot be said to have done much for the subject.

The special discussion in the Section of Public Medicine on "The Influence of Drinking-Water in Originating or Propagating Enteric Fever, etc.," was interesting and instructive from a lay point of view; but no facts not already known to scientific men were advanced. It is well, however, to dwell upon some of them, for only by a process of repetition oft repeated will the public ever be brought to see the necessity of an individual attempt to stamp out "preventable disease." The discussion was opened by Dr. Fergus, of Glasgow, who showed in a clear and unmistakable manner the close connexion that in times past of outbreaks both of cholera and typhoid fever in Glasgow could be traced to polluted water.

Dr. Alfred Carpenter next followed with a paper on "The Dual Requirement necessary for the production of Enteric Fever." The sum of his conclusion was that an occasional enteric germ might be in water; but if that water was pure it could not multiply there, whilst if the body of the recipient is healthy, and has not been exposed to miasmata from decomposing animal matter—such as escape from common sewers—it will abate, and no fever be likely to arise. Dr. Carpenter also held that with perfect ventilation of sewers, a pure water-supply, and complete separation between the sewers and the water service, no general visitation of enteric fever could take place. He spoke of an epidemic of enteric fever in 1865, when he was decidedly of opinion that the germs of the disease were communicated in a number of fatal cases through milk. But, though milk was the means by which the poison was conveyed, the predisposing causes existed in defective sanitary arrangements in most of the fatal cases.

Other papers by Dr. Norman Kerr, Dr. Ballard, Dr. Hudson, were also read.

Active work was also done in the Sub-sections of Ophthalmology and Otology, and of Dermatology. Meetings of various committees—Parliamentary Bills, Scientific Grants, and others—were held.

In the evening a *conversazione* by the Mayor, Corporation, and citizens of Cork was held in the Opera House, which had been tastefully decorated for the purpose. The pit and stage had been raised on to the same level, and thus formed one large promenade. The *coulisses*, the staircases, the green-rooms, boxes, balconies, all thronged with visitors, formed an admirable *locale* for the holding of such an assembly. *Mirabile dictu!* there was no difficulty about the cloak-room arrangements, the *bête noir* of the majority of such extemporised entertainments. At the top of the Opera House there is a large green-room, which was temporarily converted into a picture-gallery. It contained some very fine works—of native talent for the most part. Barry, Maclise, and Grogan, amongst the painters who are dead, received of course the most attention. Maclise's only picture exhibited, "The Origin of the Harp," is a very curious painting. Lyster was represented by a large number of his works. Shiel, Fisher, Magrath, and Brenan, among a host of others, were also represented. The *conversazione* was very largely attended, visitors lingering to the small hours of the morning.

Though not strictly belonging to the Association's doings, I must not omit to mention the annual meeting of the Irish Graduates' Association. Dr. Stewart wished to change the name into the Anglo-Hibernian Association, but the proposal was negatived. The dinner succeeded the meeting, and on the whole was a success. Many of the distinguished visitors in Cork were invited as guests, and attended.

Thursday, August 7.

The third general meeting was the first public business of to-day's proceedings. The report of the Medical Reform Committee, of the Habitual Drunkards Committee, of the Scientific Grants Committee, were read and adopted. Each report was the result of great labour during the preceding twelve months, and the gentlemen who form these committees deserve our best thanks for the time and labour they bestow on their work.

Mr. Savory next delivered his Address in Surgery, "On the Prevention of Blood-Poisoning." I can say, without running the risk of invidious comparison, that I never listened to an address with greater admiration than to this one. The orator spoke for upwards of an hour and a half without the aid of notes or references of any kind. The rapid flow of words was only interrupted by an occasional irrepressible burst of applause from his astonished audience. For my own part, I had but one thing to regret, and that was, the somewhat personal bearing which the address—unintentionally no doubt—seemed to convey. I found afterwards, too, that a large number of men thought as I did, and like myself regretted that the otherwise masterly handling of a great subject such as this should, even in appearance, have been marred by personal allusions. However, a challenge has gone forth, and I doubt not it will be accepted. In this sense nothing could be better either for the rival systems, or for the patients who will have to serve as the medium for the settlement of the dispute.

After the address, the gold medal of the Association, for "distinguished merit," was presented to Surgeon-Major Reynolds, V.C., for his distinguished gallantry on the memorable occasion of the battle at Rorke's Drift. In the unavoidable absence of Dr. Reynolds, who is still with the forces in Africa, the Director-General of the Army Medical Department had deputed Surgeon-General Crawford to receive the medal on his behalf. Dr. Carpenter, the President of the Council, first read the Minute ordering its presentation; and then, in a few well-chosen words of approval and congratulation, handed the medal, amidst great applause, to Dr. Reynolds' representative, Dr. Crawford, who, on behalf of his absent friend, thanked the Association for the honour they had conferred alike on Reynolds and on the service to which he belonged.

In the Sections work was again active. In that of Medicine the special subject was "Alcohol in Fever." The discussion was continued throughout the afternoon. I hardly care to attempt a summary of this difficult question beyond saying that the bulk of evidence is in favour of a moderate use of alcohol. Papers were read by Dr. Little,

of Dublin, Professor Macnaughton Jones; Dr. Clark, Dr. Foster, Dr. Ker, and others, taking part in the discussion.

In the Surgical Section, the well thrashed-out subject of Osteotomy was once again brought forward, the discussion being opened by Mr. William Adams. Papers by Mr. Jones, of Manchester, Dr. Macewen, and Mr. Parker. I think it would have been wise to have limited the range of the subject. Osteotomy is now a well-recognised surgical operation; there is no dispute as to the great services it has already rendered. Thus it might have been well to have selected one or more special points, and to have well discussed these, rather than to have attempted the whole subject. Mr. Adams reviewed the subject and dwelt on generalities. Mr. Jones related a series of cases. Mr. Macewen and Mr. Parker spoke specially on the treatment of genu valgum, the latter confining himself entirely to children.

In the Sub-section of Dermatology, a discussion on "Lupus: its Varieties and Treatment," was opened by a paper from Mr. Hutchinson, which, on account of his unavoidable absence, had to be read by one of the secretaries.

In the Section of Public Medicine there was an important discussion on "How are we to deal, by isolation or otherwise, with convalescents from acute infective diseases, so as to limit the spread of the disease?" The discussion was opened by Dr. J. W. Moore, of the Cork-street Fever Hospital, Dublin. He said the subject was an eminently suggestive one, and one that came home to every physician. He was connected with the largest epidemic hospital in Ireland, and he presumed that it was owing to this he had been selected to open this discussion. From his experience he had come to the resolution that the only feasible method of limiting the spread of epidemic was by a system of complete isolation between the sick and convalescent, and he used the term "isolation" in its most extended sense. The convalescent must be kept separate until the days of his purification were accomplished; and, in the words of the old Mosaic law, he might say of the convalescent patient, "He shall dwell alone, and without the camp shall his habitation be." Nor would it suffice to isolate the convalescent himself—his wearing-apparel and other possible *fomites* must also be prevented from doing harm, by thorough disinfection. Sometime, indeed, nothing short of destruction by fire could neutralise the danger. Often and often had he been an eye-witness of the untoward effects of a prolonged sojourn in the necessarily tainted air of the hospital. Abscesses, bad sores, diarrhoea, pleurisy, and other diseases, were sequels of the diseases in many instances; and he could not help thinking how different it might have been had the sufferers been removed in good time to a purer air. The surroundings in even the best managed epidemic hospital could not fail to exercise a depressing influence on the minds of patients who are recovering from illness. It should not be forgotten, also, that beds were being occupied by the convalescent which might probably be urgently required at that very moment for other patients in the earlier stages. At present he believed that in Ireland no suitable or adequate accommodation existed for either hospital or private patients recovering from infectious diseases. Dr. Moore exhibited a plan of a convalescent home, and recommended that it should be in a rural position, about a mile from the city, and situated on a plot of from ten to twelve acres; and, with regard to private patients, he suggested that convalescent homes should be built and regulated on the plan of private lunatic asylums.

Dr. Moore's interesting and suggestive paper was followed by others by Dr. Vacher, Dr. Ransome, Dr. Potter; and among the speakers may be mentioned Dr. Stewart, Dr. Pacciatti (of Turin), Dr. Littlejohn (of Edinburgh). The discussion was closed by some remarks from the President (Dr. Grimshaw). During the afternoon, Dr. Norris demonstrated "a third corpuscular element in the blood," which he considers to be the essential factor in the formation of fibrine.

A very remarkable case was also demonstrated by Dr. J. R. Hayes, of Tralee: a woman about thirty-five years of age, from whom he had removed the entire right parietal and half of the frontal bones, which had necrosed as the result of a severe burn. He had grafted skin on to the dura mater, which was now healed and cicatrised. The woman appeared to be in good health. The bones were also shown.

The usual annual dinner brought this day's proceedings

to a close. I can best summarise the evening's doings by saying that the dinner very much resembled its predecessors, both as to the eatables, drinkables, and speech-making. The hospitality of the Irish branch, the success and well-doing of the Association, the acknowledgment of individual work, were the themes on which the speakers found a fertile source of inspiration. I will only quote from one speech—that proposing a vote of thanks to the "Readers of Addresses and the Presidents of the Sections":—

"Anyone who had listened that morning to the oration which was delivered by the Orator in Surgery must have felt, as the high-toned eloquence glided like honey from his lips, that Mr. Savory was a worthy representative of the great school of St. Bartholomew's. As they sat fascinated by the orator, they were in turn thrilled by his high-toned eloquence, by the scientific skill with which he exposed the fallacies of scientists outside the profession, but, above all, by his lovely and splendid courage in rescuing them from the thralldom of a gigantic tyranny which threatened by its exceeding beauty to enslave their judgments. Everyone had reason for satisfaction at being rescued from the tyranny of a theory which, however good in its operations, had not yet attained the position of scientific truth." I will just add, that the speaker was a physician. When will these gastro-nomic exhibitions give place to a more agreeable and more rational way of spending an evening together?

I must not forget to mention the temperance breakfast this morning, which was presided over by Dr. Norman Ker. The President of the Association, the President of Council, Dr. Waters, Mr. Ernest Hart, and Professor Macnaughton Jones were among the company. Dr. O'Connor's address—simple, kindly, and unpretending—was received with great satisfaction. He said that there was no act of his professional life on which he looked back with greater satisfaction than on his having been the means of restoring many, who had been degraded by intemperance, to their families and to society. He was well pleased that a man nowadays was no longer tabooed for being temperate. Mr. Ernest Hart also spoke, and advocated the coffee-tavern movement as a means of checking the growth of intemperate habits, and hoped soon to see coffee music-halls established with a view to the same end.

A propos of temperance, the temperance luncheon which was provided at Besborough, by the liberality of Mr. and Mrs. E. Pike, in their own grounds, must receive notice. Besborough is a magnificent country seat. The luncheon was sumptuously served, Mrs. Pike doing the honours in a manner which won all hearts. There are extensive gardens and fruit conservatories, and they were made to yield an abundant feast for those who had the good fortune to be present. Upwards of five hundred guests assembled.

Friday, August 8.

To-day has been one of work and pleasure combined. During the morning the scientific part of the work was brought to a close, and in the afternoon a garden-party; and later on a concert closed the official programme of a very successful meeting.

The Address in Public Health was read by Dr. McCall Anderson on behalf of Dr. Fergus, who had been telegraphed for on account of the illness of a member of his family. The subject was "Preventative or State Medicine." It dealt with the means by which disease might be prevented, and the measures which ought to be adopted to that end.

At the close of the address the sections commenced work. In that of Medicine the special subject for discussion was "Tracheotomy in Croup." Papers by Dr. Corley, Dr. Wm. Squire, Mr. Parker, and Mr. Wm. Thompson, on this subject were read, and a discussion took place. I was much surprised to find that the utility of the operation still needs defending in Ireland. Dr. Corley's paper was in great part a well-considered defence of the operation; it is to be hoped that this discussion will help to place the operation in its right light, and demonstrate that the mortality occurs *after* rather than *in consequence of* the operation. After the discussion a number of papers on various subjects were called on, most of them being "taken as read."

There was no special subject for discussion in the Surgical Section to-day, but there was no lack of papers on various subjects of interest, by Mr. Owen, Mr. Stanton, Dr. Atkins, and others. In the Section of Public Medicine, Dr. Henry Tweedy read a paper on the "Causes of Death in Ireland."

I subjoin a brief epitome, as it may be of interest to your readers. Having enumerated the various causes of death in both countries, such as zymotics, constitutional, local, and developmental diseases, he proceeded to give the result of a comparison between the Irish and English death-rates from various causes, and showed that the excessive death-rate in Ireland was due to constitutional and not to zymotic diseases. He proved also that consumption was one of the principal causes of death, and that this was in a great measure due to defective sanitation in various forms, such as impure air, overcrowding, bad drainage, insufficient food and clothing; and he alluded to the measures being adopted by the Dublin Sanitary Association, and other bodies, towards the amelioration of this evil in Irish towns. A discussion ensued on it, and his views were very generally approved of.

Other papers were contributed by Dr. Chapman, Dr. Bonnafont (Paris), and Dr. Joseph Rogers. The last-named gentleman took as his subject, "The Anomalies and Deficiencies of the Poor-law Medical Relief in the United Kingdom, with Suggestions for its Amendment." In the course of this meeting it was resolved, on the motion of Dr. Notter, seconded by Dr. Littlejohn—"That this section is of opinion that a committee of the Association should be appointed to see how we are to deal, by isolation or otherwise, with the convalescents from acute infectious disease so as to prevent its spread."

The Sub-sections of Ophthalmology and Otology were busily at work throughout the morning; they have fully demonstrated their utility, and will no doubt in consequence become regular institutions at these annual meetings of the Association.

The concluding general meeting was held early in the afternoon. Various reports were received and adopted, and the committees re-appointed. The last piece of business was the vote of thanks to the city of Cork for the reception which the Association had met with. It was proposed by Dr. Falconer. The names of the Mayor (P. Keunedy, Esq.), of the High Sheriff (R. Hall, Esq.), of the Hon. Local Secretary and his assistants (Professor Macnaughton Jones, Drs. Atkins, and O'Connor, jun.) were specially mentioned.

In the afternoon, the Reception Committee gave a garden-party at the College. It was now that peculiar fitness of the College became specially manifest. The extensive terraced gardens were thronged with the *élite* of Cork society. The bands of two or three regiments stationed in Cork discoursed sweet music. The weather was delightful. In the evening an amateur concert was given in the Assembly Rooms. We were all as much astonished as delighted. One lady (Miss Hackett) fairly electrified us by her finished rendering of some operatic music of great difficulty. I must not omit to mention Captain Meares, whose admirable voice lent an additional charm to all he sang.

Dr. Carpenter returned thanks for the kind and hospitable manner in which the British Medical Association had been received. He complimented the ladies present on their beauty, and said he was sure that some of the younger members of the audience would lose their hearts before they left the room—a statement which evoked much merriment. He thanked the President and Reception Committee, and the ladies and gentlemen who had taken part in the concert, especially Miss Lucy Ashton Hackett, for the great treat given to them that evening.

The excursions, which are now looked upon as part and parcel of the meeting, will this year have an unusual charm, for the close proximity of the Irish lake district will be sure to tempt large numbers of visitors. Indeed, there has been quite a "rush" on the tickets, and many applicants have had to be refused. Messrs. Cook have charge of the general arrangements.

Thus closes the second meeting of the British Medical Association in Ireland. Judged by any of its predecessors, whether from a scientific or from a social aspect, this meeting must be regarded as an unqualified success.

It is easy to foresee that the difficulties of entertaining such an association as this will shortly become a very serious question, and that the Council will have to take the matter up. For not only are the numbers of the members increasing very rapidly, but also the business of the Association is spreading itself out in all directions. There are comparatively few places which possess the range of buildings suitable for the transaction of so much business under the same roof at the same time. Such a building as Queen's

College, with its lecture theatres, libraries, halls, and classrooms, was obviously the right place to select, but even then the College was sorely tried, and the advent of any larger number of members would have rendered the success less full than it actually was. Sufficient, however, to the day is the evil thereof. I will not mar the agreeable present by gloomy forebodings of an uncertain future. As Shakespeare says—

"Let's carry with us ears and eyes for the time,
But hearts for the event."

MR. SAVORY'S ADDRESS ON ANTISEPTIC SURGERY.

(From our Cork Correspondent.)

MR. SAVORY'S address (which will be found *in extenso* elsewhere in our columns) on the Prevention of Blood-Poisoning will long be remembered, by those whose privilege it was to hear it, as a most brilliant oratorical performance. Nor could this able surgeon have chosen a subject of greater importance, nor one of more absorbing interest than that of pyæmia after surgical operations. After referring to the difficulty of selecting the material for an appropriate address, he goes on to say that, "if the members of the Association had been called on to select a subject for this address, the majority at least would have chosen that which is, I think, not only in itself the first and largest in surgery, but also the one which of late years has occupied the attention of most surgeons far more than any other, and concerning which the most opposite opinions are entertained by those who have the fullest opportunities of studying it."

The address was obviously prompted by an honest conviction that the plan (which modern surgeons are almost unanimously adopting) of introducing the so-called "antiseptic" precautions into their practice is not only not necessary, but that it is even to a slight extent injurious, as tending to complicate both doctrine and practice. We regret to be unable to follow Mr. Savory in this view. Indeed, we think his whole address speaks loudly in favour of Listerism. If for no other reason, we are compelled by a study of the address, no less than by a knowledge of the subject itself, to attribute very largely the practice advocated by the orator to the introduction of "antiseptics." It is all very well to collect the statistics of the last three years, and point to the results which have been obtained without the so-called "antiseptic dressings." How is it that a surgeon of Mr. Savory's standing and seniority chose such *recent* statistics, if he is so well satisfied with his mode of practice and with the results obtained? Is it because they are better than the results of ten or fifteen years ago? Would it not have been well to have published some statistics of his hospital practice long before the days of antiseptic surgery, rather than to have relied on figures which in part repose on an antiseptic foundation? For the tables present "a summary of the results of the surgical practice of St. Bartholomew's Hospital during the last three years." Mr. Savory will, of course, correct us if we are wrong in believing that a considerable proportion of this "surgical practice" is done under the most careful Listerism that can be practised.

But under any circumstances we shall venture to believe that Lister and his doctrines deserve all the credit of the very favourable results of St. Bartholomew's surgical practice, directly or indirectly. It matters not whether a carbolic spray be used or not; to our mind, the vast improvement which has taken place in hospital hygiene within the last few years has been the outcome—let us frankly admit—of opposition to Lister's teaching. Surgeons have striven their utmost—we, perhaps, among the number—to show that the spray and the minute care in adjusting so many layers of carbolised gauze were not essential to real success. A thousand-and-one devices have been invented to prove this; "modifications" have been suggested without number; other plans of practice have been laid down: and magnificent results have, no doubt, been obtained. But "antiseptic surgery" and its rules and observances have made a steady progress notwithstanding, not only in our own country, but also abroad.

In England, as elsewhere, pyæmia, septicæmia, and erysipelas have been allowed to ravage our wards, to claim a lion's share of our patients' lives, to stalk about from ward to ward without anything like a determined or scientific stand on the part of surgeons, until the very words became a dread. If the older methods of practice had been efficient, the greatest incentive to the conception of Listerism would have been wanting. If these older methods had been less simple, less easy than they are to carry out, we might perhaps, in such facts, have found an explanation of their non-adoption, or rather of the occurrence of those diseases which their non-adoption led to. But what are the facts of the case? That the art of surgeons formerly differed as widely as their science; the result then was as many methods as men, and blood-poisoning and pyæmia always and everywhere. Now, on the contrary, we have practically one method—Listerism—and on all hands it is conceded, and also by Mr. Savory, that "the occurrence of blood-poisoning during the progress of wounds and recovery after operations has been of late very far less common than formerly, and is, I venture to believe, daily becoming yet more rare." How is it that such "leaders in surgery" as Mr. Savory, among others, allowed blood-poisoning to claim so many victims "until only a few years back," if the simple plan of dressing wounds mentioned in his address is all that is needful to arrest it? Was not this method practised almost universally? It probably only lacked the essential point—antisepticism in one shape or another. "Listerism," as now practised, may not live much longer, but it will probably survive as long as the precautions which it demands are found necessary. Should the time ever come when the atmosphere of our hospital wards no longer requires to be filtered before it is allowed to touch an open wound, the complicated system of dressing which Lister enjoins will be able to give place to that simplicity which Mr. Savory, as we ourselves do, admires, advocates, and practises.

We cannot but think that there must be some truth in a doctrine which is now very largely held by a large body of scientific men; we are the more inclined to believe in it now, because it is so many years since it was first advanced, and so few since it was really accepted by anything like a majority of the profession. Had the doctrine burst upon us as some new idea, and had it at once universally taken root, there would have been room for doubt; on the contrary, many of our ablest surgeons have endeavoured to prove it false, and in their opposition—honest, as well as outspoken—to the practice no less than the precept, they have gradually, one after another, become converts to, and faithful adherents and exponents of, the doctrine of "antiseptic surgery."

Mr. Savory says that Lister's plan must be tested, not by a comparison of present with former statistics, but of present antiseptic with present non-antiseptic results. This, we think, is scarcely fair; for the present non-antiseptic treatment owes so much to the direct precepts and example of Listerism that the purely "antiseptic" method (so called) is but partially represented under such circumstances. Fortunately, it matters little how the end is accomplished, provided the result be obtained. Mr. Savory so frankly stated his case, although we thought (as did many others of his enthusiastic audience) he was a little hard on Lister and his doctrines, that he will not mind our stating our views in this plain way, and thus following in his own footsteps, differing "not on principle, but in practice."

The address will be read with immense interest; it cannot fail to give a new impetus to the practice of surgery, and may not improbably become the beginning of a new era in surgical thought, and even surgical manipulation. "Nor is it perhaps likely to be superseded altogether by any plan of management which does not include among its chief objects the reduction of this risk (blood-poisoning) to the utmost possible extent. Henceforth, no doubt, as the result of all the attention and discussion which have been given to this matter, the words cleanliness and purity will have a wider, deeper, fuller significance for the surgeon."

COLOUR-BLINDNESS.—At the request of Prof. Pflüger, Dr. Minder has examined 2275 persons (1429 males and 846 females) at Bern in relation to colour-blindness; and has found 107 (4.68 per cent.) of the number suffering from this. Of this number 6.58 were of the male and 1.3 per cent. of the female sex.—*St. Petersburg Med. Woch.*, July 26.

REVIEWS.

The Dissector's Guide. A Manual for the Use of Students. By D. J. CUNNINGHAM, F.R.S.E., Senior Demonstrator of Anatomy in the University of Edinburgh. Illustrated. Part I. Upper Limb, Lower Limb, Thorax. Edinburgh: MacLachlan and Stewart. Pp. 201.

THE absence of a preface to this instalment of what may, when completed, turn out to be a valuable work, leaves the reader to find out for himself the reason why such a book as this should have been produced. As the methods of teaching practical anatomy vary at different schools, we may imagine that the writer found that a work of this kind would prove useful at the University of Edinburgh. But "The Dissector's Guide" cannot, we think, take the place of the text-books on practical anatomy that are in general use; and to condemn the student to run through the parts seen on dissection first with this manual by his side, and afterwards with a more comprehensive work, would involve a double labour. Besides, the best text-books sketch out at fair length the steps to be gone through in dissection, and it is little more than a sketch of this kind that the work before us can pretend to be. Cutaneous structures as seen are admirably explained, and the fasciæ and their reflections are excellently handled. The sketchy character of the descriptions of arteries and nerves can be of little use, and the total absence of the anatomy of the muscles must necessitate either the reading of that part of anatomy at home or the use of another work in the dissecting-room. We consequently find ourselves at a loss to see what useful part in practical teaching "The Dissector's Guide" is to take. But in all fairness we must confess that the work the writer has attempted to do he has done clearly and well.

GENERAL CORRESPONDENCE.

HOW REWARDS GO.

[To the Editor of the Medical Times and Gazette.]

SIR,—I hope you observed that among the large number of honours and decorations that have been distributed for the Afghan campaign only one medical officer has been noticed—viz., the Senior Medical Officer of the British Forces, who has obtained a C.B. The medical officers of the Indian Army have been entirely ignored.

While such a marked and invidious distinction exists in the rewards granted to military and medical services who have been engaged and have shared the dangers of the same common errand, great discontent must exist in the Medical Service, which is the service of all others that is slighted.

All the medical officers of both services will be thankful of your notice and advocacy in this matter. We owe much of our advancement of late years to your powerful support, and you have now a grievous cause of complaint.

I am, &c.,

August 6.

SURGEON-MAJOR, INDIAN ARMY.

OUR ANIMAL MODELS.

[To the Editor of the Medical Times and Gazette.]

SIR,—I see that some erratic teetotalers are not ashamed to use the argument that man is the only animal that drinks fermented liquors, and that therefore such liquors are unnatural and injurious. I wonder that they do not push their argument a little further.

In the last century rhetorical moralists used the same weapon in their denunciations of gluttony. In the *Spectator*, published in 1810, occurs the following passage:—

"Nature delights in the most plain and simple diet: every animal but man keeps to one dish. Herbs are the food of one species, fish of that, and flesh of a third. Man falls upon everything that comes in his way; not the smallest fruit, or excrescence of the earth, scarce a berry or a mushroom, can escape him."

Allow me to add that man is the only animal that dignifies twaddle with the name of philosophy.

I am, &c.,

DELTA.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following are the names of candidates who passed the recent examinations at this University:—

PRELIMINARY SCIENTIFIC (M.B.) EXAMINATION. (a)

First Division.—Frederick William Bennett, Owens College; Robert Alfred Bindley, Guy's Hospital; William Jones Black, Owens College; Richard Henry Botham, King's College; *Frederick Foord Caiger, St. Thomas's Hospital; James Trelawney Cheves, King's College; Ed. Clarkson, University College; Edmund Percival Cockey, Epsom College; Henry Charles Evans Cooper, Guy's Hospital; Eustace Rhodes St. Clair Corbin, University College; John Dacre, Yorkshire College, Leeds; Harry Lord Richards Dent, King's College; Horace Duncan, University College; *Upendra Krishna Dutt, University College; Charles Reginald Elgood, University College; *John Elliott, Owens College; Henry Collen Ensor, Guy's Hospital; William Wadham Floyer, Guy's Hospital; Robert Fortesque Fox, private study and London Hospital; *William Ayton Gostling, University College; Albert Green, Guy's Hospital; *Bernhard Frederick Halford, University College; James Harvey, University College; William Speed Hayman, King's College; Francis Heatherley, University College; Wheelton Hind, Guy's Hospital; Frank Hinds, University College; Henry Walpole Hooper, St. Bartholomew's Hospital; Richard Benjamin Hughes, University College; William Joberns, Queen's College, Birmingham; Alfred Owen Lankester, St. Bartholomew's Hospital; *Laurie Asher Lawrence, St. Bartholomew's Hospital; *Arthur Pearson Luff, St. Mary's Hospital; William Herbert Lister Marriner, St. Thomas's Hospital; Albert Martin, Wellington College, New Zealand, and Guy's Hospital; *Sydney Sargent Merrifield, King's College; Thomas Whitworth Sewell Morgan, King's College; Edward Oriel Newland, Guy's Hospital; John Robert Nunn, University College; Frederick John Paley, St. Bartholomew's Hospital; Frederick William Henry Penfold, Guy's Hospital and Epsom College; Edmund Cleaver Pettifer, St. Bartholomew's Hospital; John Joseph Powell, University College; Frances Helen Prideaux, London School of Medicine for Women; Bernard Relton, St. Thomas's Hospital; Ernest Septimus Reynolds, Owens College; John Saunders Hughes Roberts, University College; Edmund Wilkinson Roughton, St. Bartholomew's Hospital; Rollo Edward Rouse, St. Thomas's Hospital; Mary Ann Dacomb Scharlieb, University College and private study; *Henry Settle, St. Bartholomew's Hospital; *Thomas William Shore, Hartley Institution and Royal School of Mines; Edith Shove, London School of Medicine for Women; Thomas Sydney Short, King's College; Druce John Slater, St. Bartholomew's Hospital; *William Arnison Slater, Guy's Hospital; *Herbert Ritchie Spencer, University College; *Charles Stuart Spong, Guy's Hospital; *John Stevenson, Owens College; Walter Thomas Strugnell, St. Bartholomew's Hospital; James Henry Targett, Guy's Hospital; Alfred Ernest Taylor, University College; *William Thorburn, Owens College; *Emily Tomlinson, Girton College, Cambridge; Alfred Jefferis Turner, University College; Alfred Mason Vann, King's College; John James Dean Vernon, Owens College; Edward Dennis Vinrace, St. Bartholomew's Hospital and University College; Ernest George Agars Walker, St. Bartholomew's Hospital; Philip Percival Whitcombe, Epsom College and St. Mary's Hospital; Thomas Wilson, University College; Thomas Bassell Winter, Guy's Hospital; Joseph Williamson Winterburn, Owens College; *Frederick Womack, St. Bartholomew's Hospital; Walter Essex Wynter, St. Bartholomew's and Middlesex Hospitals.

Second Division.—Henry Priestley Birch, University College; William Henry Brown, University College; William Dudley, Queen's College, Birmingham, University, and private study; William Arnold Evans, Owens College; Robert Charles Finney, private study; William Percival Graham, University College; Charles David Green, St. Thomas's Hospital; Gerald George Hodgson, King's College; Walter Hull, St. Thomas's Hospital; John Hervey Jones, Owens College; Charles Arthur Lucas, St. Thomas's Hospital; Robert Garner Lynam, King's College; Arthur Maude, St. Bartholomew's Hospital; Albert Tronson Ozzard, private study and tuition; Herbert Wilson Pilgrim, Harrison's College, Barbadoes; *Charles Ernest Player, private study and Guy's Hospital; James Pointon, private study; William Donald Smallpeice, Guy's Hospital; Arthur Hastings Lanfear Stewart, St. Bartholomew's Hospital; Theodore Thomson, Owens College; Clement Bernard Voisey, Owens and Stonyhurst Colleges; Alfred William Hinsley Walker, Owens College; Edward Alfred Walters-Hope, St. Bartholomew's Hospital; Anthony Arthur Ward, Yorkshire College, Leeds; Herbert Holdrich Williamson, Epsom and University Colleges.

FIRST B.Sc. EXAMINATION.

First Division.—Thomas James Bowker, private study; John Shaw Willes Chitty, Magdalen College, Oxford; Thomas Rudolphus Dallmeyer, University College and private study; George Louis Valère Faribault, Catholic University College, Kensington; Percy Faraday Frankland, Royal School of Mines and private study; Edwin Thomas Glasspool, M.A., private study; William Lawton Goodwin, University of Edinburgh; Clifford Grimshaw, Owens College and private tuition; Sidney Frederic Harmer, University College; George William Hill, King's College and St. George's Hospital; William Law, private study; Robert Brewer Lee, private study; Charles Myhill, University College and private tuition; Walter Odling, Royal School of Mines; Frederick William Payne, B.A., Brighton Grammar School; William John Clunies Ross, King's College and private study; John Ryan, unattached, Cambridge; George Palgrave Simpson, private tuition; Arthur Smithells, Owens College; Adolf Karl Albrecht Spiegel, Owens College; Albert Frank Stoddart, University College, Bristol; Ellen Martha Watson, private study; Sydney Young, Owens College.

Second Division.—William Bryant, B.A., private study; Robert Frost, Owens College; Joseph Reynolds Green, private study; Catherine Alice Raisin, private study; George Augustus Turner Walton, St. Bartholomew's Hospital; Harold Wilson, The Leys School, Cambridge.

Mathematics only.—William Job Collins, St. Bartholomew's Hospital; Arthur Newsholme, St. Thomas's Hospital.

(a) Those candidates whose names are preceded by an asterisk (*) have also passed in the Mathematics of the First B.Sc. Examination, and are now admissible to the Second B.Sc. Examination.

FIRST M.B. EXAMINATION.

ENTIRE EXAMINATION.

First Division.—Edwin Leonard Adeney, Guy's Hospital; Alexander Barron, Owens College and Liverpool Royal Infirmary; John Williams Batterham, Westminster Hospital; George Coulson Robins Bull, St. Mary's Hospital; Dudley Wilmot Buxton, University College; Ernest Clarke, St. Bartholomew's Hospital and Downing College, Cambridge; Henry Francis Corbould, Charing-cross Hospital; Edgar March Crookshank, King's College; Robert Ernest Gillhurst Cuffe, St. Mary's Hospital; William Radford Dakin, Owens College; Edwin Hurry Fenwick, London Hospital; William Eckett Fielden, Guy's Hospital; Thomas Harris, Manchester School of Medicine; Arthur John Jefferson, St. Thomas's Hospital; Wm. Lane, Guy's Hospital; Eugene Arthur Laurent, University College; Charles Pardy Lukis, St. Bartholomew's Hospital; John Desmond Ernest Mortimer, Westminster Hospital; Walter Pearce, B.Sc., St. Mary's Hospital; John Priestley, Owens College; James Havelock Alexander Rhodes, Liverpool Royal Infirmary; Bernard Rice, St. Bartholomew's Hospital; John Thomas Rogerson, Owens College; Thomas Dixon Savill, St. Thomas's Hospital; Frederic Wallis Stoddart, St. Thomas's Hospital; Thomas George Stonham, London Hospital; Alfred Ernest Wells, St. Thomas's Hospital.

Second Division.—Daniel Elie Anderson, B.A., B.Sc., University College; John Mitford Atkinson, London Hospital; Frederick Thomas Bayes, Guy's Hospital; Isaac Blore, Owens College; John Irvine Boswell, Guy's Hospital; James Grierson Brown, Liverpool Royal Infirmary; Walter James Clarke, Queen's College, Birmingham, and St. Bartholomew's Hospital; Oswald James Currie, Guy's Hospital; Alfred Daniel, Edinburgh and Paris; Arthur George Dawson, Owens College; Joseph Dobson, Leeds School of Medicine; Philip Rhys Griffiths, University College; Ben Hall, St. Bartholomew's Hospital; James Harper, St. Bartholomew's Hospital; John Hopkins, University College; Leopold Larmuth, Owens College; William Thomas Maddison, King's College; Alfred Derwent Maitland, University College; Alfred Meeson, Liverpool Royal Infirmary; Arthur Northcott, University College; Richard Prothero, Liverpool School of Medicine and Guy's Hospital; Frederick Robinson, Leeds School of Medicine; James Macdonald Rogers, Middlesex Hospital; Arthur Guy Salmon, St. Bartholomew's Hospital; Charles Sanders, St. Bartholomew's Hospital; Isaac Scarth, Owens College; Lauriston Elgie Shaw, Guy's Hospital; Richard Sisley, St. George's Hospital; Samuel Walter Sutton, St. Thomas's Hospital; Joseph James Udale, Guy's Hospital; Malcolm Webb, Owens College.

EXCLUDING PHYSIOLOGY.

First Division.—Robert Arthur Milligan, Guy's Hospital.

Second Division.—Arthur William Dingley, University College.

PHYSIOLOGY ONLY.

First Division.—George Frederic Barnes, St. Bartholomew's Hospital; John Whiting, St. Bartholomew's Hospital.

Second Division.—George Arieu Herschell, St. Thomas's Hospital; William Sellers, University of Edinburgh; John Smith, Guy's Hospital.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their First Professional Examination during the July sittings of the examiners:—

Edwin Simpson, Loch Chou; Harry Albert Murphy, Lancashire; Edwin Douglas, Edinburgh; Charles Pope, Yorkshire; Dugald Christie, Glencoe; Frank Bernard Norris, County Cork; George William Daunt, County Cork; Mark Anthony Wardle, Stratford-le-Bow; James Satterthwaite, Ulverston; Anthony Snowdon, Helme Park; Edmund McDonnell, County Antrim; Titus Helden Harwood, Burnley; James Charles Bradshaw, Staffordshire; Peter Dunlop, County Down; Francis Moore, Guernsey; Miles Wolfe Carr Partridge, Birmingham; Arthur Thomas Nunn, Hampshire; Francis Edward Akerley, Liverpool; James William Thornton Gilbert, Calcutta; John Swatman Reynolds, Holton, Suffolk; John Arthur Cornett, Liverpool; Michael Joseph Collins, Cork; Abraham Llewellyn Reece, Barbadoes; James Booth Clarkson, Lancaster; David William Johnston, Whitehaven; Eugene Geary, Cork; Edward Evans, North Wales; John Holt Marsh, Bolton; William Lloyd Reade, Portarlington; Robert Greenwood Dempster, Liverpool; Alex. McDonald Westwater, Edinburgh; Francis MacDonald Swallow, Isle of Man; Charles Samuel Gibbons, Brocklesby; Frank Cheetham, Rochdale; John Ottley, County Cork; Richard Francis Walsh, County Cork; Abercromby McBeath, Banffshire.

And the following gentlemen passed their Final Examination during July and August, and were admitted L.R.C.P. Edin. and L.R.C.S. Edin.:—

William Crofts, County Cork; Valbert Larcher, Mauritius; William David Sheppard, Haverfordwest; Frederick Dunbar Sutherland McMahon, St. Vincent; John Joseph MacDonnell, Galway; Alexander Bowie, Edinburgh; William Stevenson, Stirlingshire; Denis Quinlan, County Cork; Robert William Anderson, Portsmouth; John Henderson Brannigan, Mayo; James Camac Smyth, Dervock; Alfred James O'Hara, India; Thomas Harrop Roberts, Saddleworth; John Paxton, Norham-on-Tweed; Owen Lynch, Londonderry; Arthur Frederick Wilkins, Madras; James Joseph Delahunt, Huntley, Ballinasloe; Edward North, Hampshire; Angus Munro, Carbot, Inverness; Milbourne Luscombe Bloom Coombs, Devonport; William Cotton Cornwall, Ballygur; William Henry Haley, Lincolnshire; Eleazer Davies, Cwm-Amman; Marshall John Campbell, Colmonell; Humphry Haines, Cork; Philip Durrell Pank, Norwich; William Langford Pruen, Bristol; John Stewart, County Armagh; William Ring, Cork; Miles Wolfe Carr Partridge, Birmingham; Egbert Williams, Llandilo; Anthony Snowdon, Helme Park; James MacMullen Bolster, Mallow; Samuel Wallace, County Antrim; George Francis West, County Fermanagh; George Gibson Hamilton, Falkirk; James Ferguson Wyllie Clarke, Aberfeldy; William Dalziel, South Shields; James Ronayne, Ballyhaunis; Alexander Dryden Moffat, Glasgow; Robert Huntly Campbell, Boulogne; George Skirving, Edinburgh; Peter Slade Kendall, Cornwall; Robert Fawcett Maxwell, Armagh; David Leslie Porter, Londonderry; Alexander McNaughton, Perthshire; Robert Dover Bruns-kill, Bampton, Penrith; Sarkies Thaddeus Avetoom, Calcutta; Duncan William Francis Chisholm, Nova Scotia; John Adolphus Burton, Madras; Edmund Seymour Bricknell, Queenstown; Charles Paget Hooker, Richmond, Surrey; Robert Joseph Kennedy, County Kerry; Joseph William Townsend Anderson, Kurrachee, India.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—The following gentlemen passed their First Professional Examination in July :—

Alfred Ernest Bartram, Bath ; Saint John Colwood Bennett, Sussex.

And the following gentlemen passed their Final Examination, and were admitted Licentiates of the College :—

John Tubb Thomas, Pontypool ; John Edward Hanson, Huddersfield ; William Doughty, Coalport ; John Edmond Fairlie, Paisley ; William Arthur Ormsby Roberts, Carnarvon.

The following gentlemen having passed the necessary examinations in July, obtained the diploma of Licentiate in Dental Surgery :—

William Armston Vice, Isleworth ; Leon Jablouski Platt, Edinburgh.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 7 :—

Betts, Edward George, Freegrove-road, Holloway, N.
Bothamley, William Parkinson, Donington, Spalding.
Heaven, John Cookesley, Queen-square, Bristol.
King, William Henry Tindal, Plymouth.
Nourse, William John Chichell, Clarendon-street, Paddington.
Whitehead, Thomas Kay, Holly Mount, Rawtenstall.

The following gentlemen also on the same day passed their Primary Professional Examination :—

Bennett, Frederick Thomas, St. Bartholomew's Hospital.
Humphreys, William Carr, Queen's Hospital, Birmingham.
Stephen, John Alexander Lewis, St. George's Hospital.
Robinson, Alfred, St. Bartholomew's Hospital.
Willis, Arthur, St. Bartholomew's Hospital.

NAVAL AND MILITARY, Etc., APPOINTMENTS.

ADMIRALTY.—The undermentioned gentlemen have been entered as Surgeons in her Majesty's Fleet, with seniority of March 31, 1879 :—
Alexander George Pemberton Gipps ; John Hunter, M.B. ; Robert Arthur Simpson, M.B. ; Justin Foley Donovan, M.D. ; Robert M'Ivor, M.D. ; James Barclay Clibborn ; William George Jack ; Alfred Emson ; Richard Edmund Biddulph, B.A., M.B.

BIRTHS.

DAVIES.—On August 10, at Huntingdon, the wife of William Morriston Davies, M.D., of a son.

DAWSON.—On August 7, at 5, Second-avenue, Queen's-gardens, Brighton, the wife of Richard Dawson, M.B., of a son.

HARLEY.—On August 10, at Saffron Walden, Essex, the wife of Edward Harley, L.R.C.P., of a son.

TREEVAN.—On August 8, at 86, Netherton-road, Hammersmith, the wife of Alfred Teevan, M.R.C.S. Eng., of a daughter.

MARRIAGES.

BOISSIER—MARSHALL.—On August 6, at St. Swithin's Church, East Retford, the Rev. Frederick Scobell Boissier, second son of the Rev. Peter Henry Boissier, to Frances Harriett Marian, eldest daughter of the late Samuel Marshall, M.R.C.S., of East Retford.

CROSS—SMITH.—On August 7, at St. George's, Hanover-square, T. B. Cross, B.A. Caius College, Cambridge, youngest son of Richard Cross, M.D., of Scarborough, to Euphemia Patricia Mackay, second daughter of the late Peter Smith, of Edinburgh.

DEVENISH—BLACK.—On July 16, at the Chapel of Our Blessed Lady of the Rosary, Port of Spain, Trinidad, W.I., Marie Wilhelm, youngest son of Sylvester Devenish, Esq., A.M., M.R.C.S. Eng., of 14, Clarence-street, Port of Spain, to Cecile Suzan Marion Eliza Hume, sole daughter of the late Alexander Osmond Black, M.B., of Palmiste Lodge, Couva, Trinidad, W.I.

EVANS—HOWARD.—On August 7, at St. Michael's, Chester-square, Alfred Henry Evans, M.R.C.S., of Sutton Coldfield, Warwickshire, to Helen, eldest daughter of Frederick Howard, of The Abbey Close, Bedford.

HALLOWES—BERRY.—On August 9, at the parish church, Walcot, Bath, Wm. Bourne Hallowes, L.R.C.S., etc., of Newark, Notts, youngest son of the late Neith Hallowes, solicitor, of Dublin, to Louisa Jane, daughter of the late Francis Berry, J.P., of Eglisli, King's Co., Ireland.

SCHUSTER—WEBER.—On August 7, at the German Chapel Royal, St. James's, Felix Otto, third son of Francis Joseph Schuster, of Sunnyside, South Hampstead, to Alwine Meta, third daughter of Hermann Weber, M.D., of 10, Grosvenor-street.

SMITH—NEWTON.—On August 12, at St. Stephen's, Lewisham, Gerard Henry Smith, M.R.C.S., of Glenarm House, Upper Clapton, to Emily Aline, second daughter of A. V. Newton, of The Glebe, Lee.

TUKE—CHRISTIAN.—On August 5, at St. Mary's, Penzance, John Henry Tuke, L.R.C.P., etc., of Stewarts, Week St. Mary, to Christina, youngest daughter of the late Elias Christian.

WEBB—BOYCOTT.—On August 7, at Holy Trinity Church, Coalbrookdale, Thomas Law Webb, L.R.C.P. Lond., of Ironbridge, to Florence Elizabeth, eldest daughter of H. Boycott, Esq., of The Firs, Ironbridge.

DEATHS.

BLACK, JANE, relict of the late Dr. James Black, F.R.S.E., of 2, George-square, Edinburgh, at Maudsley Cottage, Eskbank, on August 13, aged 88. Friends will please accept this intimation.

LEAHY, EDWARD, M.D., third son of the late John Leahy, J.P., of South-hill, Killarney, at his residence, Carriglea, Killarney, on August 3, aged 63.

MAUND, HENRY, M.D., at Westmount, Sandown, I.W., on August 11, in his 52nd year.

STOCKER, JOHN BEALEY SOUTHBY, eldest surviving son of John Sherwood Stocker, M.D., at 2, Montague-square, on August 8, aged 9½.

SYMES, GEORGE, M.D., of Bridport, Dorset, on August 5, aged 81.

THOMSON, CHARLOTTE, wife of James Archer Thomson, M.B., C.M., at Washington House, Guilford-street, W.C., on August 5.

THOMSON, HENRY RICHARDSON, M.R.C.S., late of Penge, at Mogador, Morocco, on July 22.

WEBSTER, REBECCA, widow of Edward Webster, M.R.C.S., and daughter of the late George Healey, of Stoke Doyle, at Oundle, on August 2, aged 63.

YOUNG, WILLIAM HENRY, M.D., late Surgeon of H.M. 25th Foot, at Wrington, Somerset, on August 12, in his 93rd year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

JERSEY GENERAL DISPENSARY.—A Resident Visiting and Dispensing Medical Officer, possessing the double qualification, and unmarried, is wanted for November 1. Canvassing vitates election. Election probably early in September. Address Honorary Secretary of Jersey General Dispensary, Oak-walk, Jersey.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Junior Resident Medical Officer. Candidates must possess a medical or surgical qualification from one of the examining boards of the United Kingdom. Appointment for six months only, but holder eligible for re-election. Board and residence provided in the Hospital. Testimonials on or before Tuesday, August 19, to James D. Blyth, Secretary.

NORTHAMPTON GENERAL INFIRMARY.—Physician. Candidates must be Doctors of Medicine of one of the universities of the United Kingdom, and Fellow or Member of the Royal College of Physicians of London, and not under twenty-five years of age. Applications and diplomas, accompanied by testimonials of professional ability, to the Secretary, on or before August 26.

SHEFFIELD GENERAL INFIRMARY.—House-Surgeon and Assistant House-Surgeon. Candidates for these appointments must be Members of one of the Royal Colleges of Surgeons of the United Kingdom, or Licentiates of the Faculty of Physicians and Surgeons of Glasgow, also Licentiates of the Apothecaries' Company, or Licentiates of the Royal College of Physicians of London, and on the "Medical Register." Applications, with testimonials, to the Secretary, on or before August 16.

UNION AND PAROCHIAL MEDICAL SERVICE.

** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Kendal Union.—Mr. R. Harrison has resigned the Ambleside District ; area 27,602 ; population 3912 ; salary £50 per annum.

Watford Union.—Dr. R. W. Henderson has resigned the Rickmansworth District (part of) ; salary £35 per annum.

APPOINTMENTS.

Bath Union.—John Davies, M.R.C.S. Eng., L.S.A., to the Second District.

Crediton Union.—Edmund Rundle, L.R.C.S. Ire., to the Cheriton Fitzpaine District.

Droitwich Union.—Samuel W. Coombs, L.R.C.P. Edin., L.R.C.S. Edin., to the Claimes District.

Faringdon Union.—Wm. H. Box, M.R.C.S. Eng., L.S.A., to the Faringdon Second District.

Forehoe Incorporation.—B. R. Boast, L.R.C.P. Edin., L.F.P. & S. Glasg., to the Workhouse.

Petersfield Union.—John Woods, M.R.C.S. Eng., L.R.C.P. Edin., to the Fourth District.

Preston Union.—Alex. C. Rayner, M.R.C.S. Eng., L.S.A., to the Second District.

St. George-in-the-East Parish.—Wm. R. Henderson, M.D., C.M. Queen's Univ. Ire., as Assistant Medical Officer at the Infirmary and Workhouse.

Sheffield Union.—Walter Hallam, M.R.C.S. Eng., L.S.A., to the Brightside East District.

Staines Union.—Edwin Roper, M.R.C.S. Eng., to the Shepperton District.

Tiverton.—Alex. W. Blyth, F.C.S., as Analyst for the Borough for one year.

West Ham Union.—Thos. S. Jackson, M.D., C.M., M.R.C.S., to the Walthamstow District.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—Bacon.

** Dr. Dobell's communication has been received, but, being more of private than of public importance, need hardly be noted by us. We regret the loss which the Association will sustain.

A Guardian, Plymouth.—Dr. Wright has not been more favoured by the College of Surgeons than scores of other gentlemen who, having the necessary facilities for imparting instruction, are allowed to take pupils. We do not see anything objectionable in the circular he sends out.

Royal College of Surgeons.—The Library and Museum of this Institution will be closed on Monday, September 1, for the necessary cleaning, dusting, etc., and will be reopened on Wednesday, October 1. The election of a member of the Court of Examiners in the vacancy occasioned by the resignation of Mr. J. E. Erichsen will not be filled up until November.

A Member.—The invitation to the British Medical Association to meet at Cambridge next year has been accepted.

S., Devonport.—Yes, in all probability Mr. John Wood, F.R.S., will be elected in the vacancy occasioned by the resignation of Mr. Erichsen. Mr. Christopher Heath is not yet a member of the Council. Both received their professional education at King's College, and are also prize essayists of the College of Surgeons: the former for his treatise on "The Radical Cure of Inguinal Hernia," and the latter for "Injuries and Diseases of the Jaws." They are Fellows of the College by examination.

Mr. Johnson.—Write to Mr. Trimmer or Mr. Stone for particulars of the College prizes. No member of the Council can compete for them. The following members of the Council and Examiners have carried off at different times the prizes for which so few now compete, viz.—J. Swan, in 1822 and 1825, the Collegial and the Jacksonian; S. Cooper and W. Lawrence, 1806; J. Hodgson, 1811; E. Stanley, 1815; J. Swan, 1817 and 1819; R. A. Stafford, 1826; B. Phillips, 1832; T. Callaway, 1846; J. Birkett, 1848; J. W. Hulke, 1859; J. Wood, 1861; and C. Heath, 1867.

BOOKS AND PAMPHLETS RECEIVED—

J. Henry C. Simes, M.D., Transactions of the Pathological Society of Philadelphia, vol. viii.—Edward A. Birch, M.D., Goodeve's Hints for the Management and Medical Treatment of Children in India, seventh edition.—Dr. J. Marion Sims, The Treatment of Epithelioma of the Cervix Uteri.—Dr. A. Gusserow, Zur Geschichte und Methode des Klinischen Unterrichts.—Dr. E. Wiss, Die Heilung und Verhütung der Diphtheritis.—Dr. Alfred Hill, Report on the Health of the Borough of Birmingham for the Quarter ending June 28, 1879.—Spencer Watson, F.R.C.S., Eyeball-Tension: its Effects on the Sight and its Treatment.—Congrès Périodique International des Sciences Médicales, Amsterdam, 1879.—An Incredible Story—A Birdseye View of the Scientific Claims of Vivisection.—E. C. Seguin, M.D., Archives of Medicine, August, 1879.—A. Wynter Blyth, M.R.C.S., F.C.S., The Composition of Cow's Milk in Health and Disease.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Revue Médicale Française et Etrangère—El Siglo Médico—Louisville Medical News—Britannic—Nature—Night and Day—Transactions of the Odontological Society of Great Britain, June—North Carolina Medical Journal—L'Union Médicale d'Orient—Il Movimento Medico-Chirurgico—Canada Medical and Surgical Journal—Dublin Journal of Medical Science—Canadian Journal of Medical Science—Boston Journal of Chemistry—Calcutta Englishman.

COMMUNICATIONS have been received from—

Mr. R. W. PARKER, London; Dr. S. K. COTTER, Ballincollig, Cork; Dr. BRINSLEY NICHOLSON, Shepherd's-bush; Dr. W. ALEXANDER, Liverpool; THE REGISTRAR OF APOTHECARIES' HALL, London; THE SECRETARY OF THE BROMPTON HOSPITAL FOR CONSUMPTION; THE MILITARY SECRETARY OF THE INDIA OFFICE; THE HON. SECRETARY OF THE QUEKETT MICROSCOPICAL CLUB; THE SECRETARY OF THE MEDICAL FACULTY OF THE UNIVERSITY OF ABERDEEN; Dr. DOBELL, London; Surgeon-Major FAIRWEATHER, Punjab; Messrs. J. C. THACKER and Co., Calcutta; THE SECRETARY OF THE UNIVERSITY OF LONDON; Dr. HILTON FAGGE, London; Dr. MOORE, Dublin; Mr. M. BECHER, London; Messrs. J. and J. BELCHER, London; Mr. G. MEADOWS, Hastings; Dr. J. W. MOORE, Dublin.

APPOINTMENTS FOR THE WEEK.

August 16. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

18. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

19. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

20. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

21. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

22. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

QUEKETT MICROSCOPICAL CLUB (University College), 8 p.m. Meeting.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 9, 1879.

BIRTHS.

Births of Boys, 1211; Girls, 1116; Total, 2327.
Average of 10 corresponding years 1869-78, 2220.5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	648	575	1223
Average of the ten years 1869-78	801.0	736.2	1537.2
Average corrected to increased population ... ..	...	...	1645
Deaths of people aged 80 and upwards ... ..	...	...	27

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small- pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West	561359	1	5	6	3	2	...	...	...	7
North	751729	1	18	9	...	6	1	8	...	25
Central	334369	1	6	3	3	2	...	...	...	10
East	639111	...	11	6	1	11	...	1	...	24
South	967692	2	14	19	2	13	...	4	...	24
Total	3254260	5	54	43	9	34	1	13	...	90

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	...	29.717 in.
Mean temperature ... ..	...	...	...	...	...	...	59.5°
Highest point of thermometer ... ..	...	...	...	...	...	...	75.8°
Lowest point of thermometer ... ..	...	...	...	...	...	...	50.8°
Mean dew-point temperature ... ..	...	...	...	...	...	...	54.4°
General direction of wind ... ..	...	...	...	...	...	...	S.W.
Whole amount of rain in the week ... ..	...	...	...	...	...	...	0.51 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 9, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Aug. 9.	Deaths Registered during the week ending Aug. 9.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		In Inches.	In centimetres.
London	3620838	48.0	2327	1223	75.8	50.8	59.5	15.28	0.51	1.30
Brighton	105608	44.9	39	27	72.0	50.5	57.8	14.34	0.37	0.94
Portsmouth	131821	29.4	76	28	...	...	...	...	...	...
Norwich	85222	11.4	47	28	73.0	52.0	59.8	15.45	1.83	4.65
Plymouth	74293	53.3	40	26	67.0	53.0	57.7	14.28	1.12	2.84
Bristol	209947	47.2	132	58	...	...	...	...	...	...
Wolverhampton	75100	22.1	48	15	69.4	44.8	54.5	12.50	0.63	1.60
Birmingham	388884	46.3	260	119	...	...	...	...	...	...
Leicester	125622	39.3	97	31	...	...	...	...	...	...
Nottingham	169396	17.0	93	54	73.0	44.2	57.3	14.06	1.38	3.51
Liverpool	538338	103.3	357	202	66.2	50.0	54.8	12.67	0.51	1.30
Manchester	361819	84.3	235	125	...	...	...	...	...	...
Salford	177849	34.4	147	67	...	...	...	...	...	...
Oldham	111318	23.9	64	42	...	...	...	...	...	...
Bradford	191046	26.5	114	63	69.2	47.8	55.4	13.00	0.87	2.21
Leeds	311830	14.5	200	115	66.0	47.0	55.7	13.17	0.72	1.83
Sheffield	297138	15.1	207	81	70.0	49.0	55.8	13.23	1.07	2.72
Hull	146347	40.3	107	40	...	...	...	...	...	...
Sunderland	114575	41.4	81	59	75.0	49.0	58.1	14.50	0.39	0.99
Newcastle-on-Tyne	146948	27.4	102	60	...	...	...	...	...	...
Edinburgh	228075	53.9	135	66	60.2	45.5	54.4	12.44	1.19	3.02
Glasgow	578156	95.8	331	173	64.8	47.0	56.5	13.61	1.92	4.88
Dublin	314666	31.3	201	144	66.8	40.7	54.0	12.22	0.91	2.31
Total of 23 Towns in United Kingdom	8502896	38.6	5441	2844	75.8	40.7	56.5	13.61	0.96	2.44

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.72 in. The highest reading was 29.88 in. on Monday evening, and the lowest 29.59 in. on Tuesday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURES

ON HYPERÆSTHESIA OF THE EYE.

By JONATHAN HUTCHINSON, F.R.C.S.,

Senior Surgeon to the London Hospital and to the Hospital for Skin Diseases; Consulting-Surgeon to Moorfields Ophthalmic Hospital; Professor of Anatomy and Surgery to the Royal College of Surgeons.

LECTURE II.

GENTLEMEN,—In a lecture which I delivered now more than a year ago, I gave you some particulars of the case of an artist who was attacked by eyeache and hyperæsthesia soon after his marriage. I have recently seen that patient again, and have obtained further details which are, in my estimation, of great importance. They show in a most instructive manner the share which venous congestion takes in causing eyeache, and the share which the sexual system takes in favouring the occurrence of venous congestion. Briefly to resume Mr. —'s case, the facts are these:—He is a man of developed intellect and strong character; he has worked very hard at his profession, drawing much on white paper. He is a total abstainer and never smokes, and he never indulged in sexual intercourse until he married at the age of twenty-seven. Formerly he never knew his eyes tire; now he is not able to direct an envelope without pain, and is never free from headache. For two months he has literally never read a line of print, and has spent his time chiefly in the open air; but the susceptibility continues. There is nothing whatever amiss with his eyes excepting that the retinal veins are very full. He can see $\frac{20}{20}$ with either with — 36, and he reads brilliant at any distance between three and sixteen inches. He is no better for what I prescribed a year ago—tonics, rest of the eyes, and great moderation in sexual matters,—yet he has carried out my recommendations most sedulously, has done nothing in his business, and has lived for two months together in a bracing place away from his wife.

You may recollect that I was inclined to trace his irritability of eyes to the period immediately following his marriage. He was impressed by what I said in this matter, and now gives me further facts as to his mode of life at this period. He had been working very closely just before he married, and had realised a considerable sum, which emboldened him to that step; but just after the marriage he found that his engagements had gone wrong, and that he was almost penniless. He now determined to live with extreme parsimony, and he continued to work very hard; and, being in strong health, he indulged very freely with his wife. It was under this combination of circumstances that his eyes became irritable. First, he could not work by gaslight; then he was obliged to work only half-time; and, finally, was forced to give up all work. He consulted two distinguished oculists, each of whom, he tells me, said quite independently that "the veins of the eye were very varicose." You will ask, seeing that I attribute his retinal hyperæsthesia and eyeache to the causes mentioned, whether they had produced any other evidence of disturbance of nerve-tone. In reply, Yes, very remarkable ones. Mr. —, before his marriage, was remarkably hardy as regards exposure to cold; he used to bathe in the sea winter and summer, and has bathed during a snowstorm and found a good glow follow it. He could swim a quarter of a mile and back without feeling starved; now he cannot on a summer day stay two minutes in the water. Nothing braces him so much, or relieves his eyeache so definitely, as exposure to cold wind; but immersion in cold water chills him directly. His hands become blue, or "die" and whiten, and he dare not even indulge in cold sponging in the morning. He himself feels no doubt at all that it was under the effect of sexual indulgence that this remarkable change in the tone of his circulatory system came about. Let us note that he has experienced no other enfeeblement. He can walk as well as ever; his memory is good, his judgment clear, and his spirits equable. He experiences not the slightest difficulty in sexual restraint, but it is attended by the inconvenience of a weekly nocturnal emission, from which before his marriage he never suffered.

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He very seldom has headache, and the pain in his eyes is confined to the organs, and affects, indeed, almost exclusively the right. This eyeache is always worse after sleep, and he is obliged on that account to sleep with the head high. He usually wakes with the eye congested, feeling as if grit were in it, and aching, and it is only after an hour or two that these conditions pass off. You will see in this a fact in support of the belief that venous congestion is the cause of his eyeache, since sleep favours that state. Stimulants also make him flush and feel heavy. He has a moderate varicocele on both sides. His pupils are active, and in bright light not larger than No. 3; as I have told you, his accommodation is very vigorous. The eye symptoms just described as following sleep are always definitely increased by an act of intercourse or an emission. On using the ophthalmoscope I found his retinal veins very full, but scarcely to be called varicose.

In connexion with the suggestion that venous congestion takes a considerable share in producing the symptom, let me relate to you a case in which derangement of circulation was a prominent feature. Miss P. is now twenty-nine, and has eyeballs so prominent as to suggest a degree of Graves' disease or exophthalmos. She states, however, that the proptosis has been as long as she can remember, and she has no appreciable enlargement of the thyroid. She has never been fond of reading, but has done, for her own amusement, a good deal of needlework. Formerly she could work without discomfort, but for three years past her eyes have been painful. Their irritability is not absolutely constant, but occurs in periods of three or four weeks at a time, and is then better. During these periods the eyes ache continually, but they are worse in morning, worse after stooping, and worse after taking beer at her meals. She sees $\frac{20}{20}$ with either, and reads No. 1. When her eyes are bad it relieves her to hold the head bent backwards, and also to go into the air. They are always worse in rooms than out of doors, provided there is no strong sunlight or wind. She says that her eyes feel stiff and hot, that they often ache badly in bed and in the dark; and if she looks intently at any object or person, in less than a minute a sharp pain comes in the eye, which obliges her to turn her head away. She is of dark complexion and rather florid, but her cheeks and lips show a preponderance of venous blood. The pupils are rather large No. 4 in bright light; they dilate well with atropine. With the ophthalmoscope no abnormal conditions are seen excepting turgid veins. She suffers almost constantly from cold feet, "often icy cold"; and if she puts her hands into cold water, it causes shooting pains up to her shoulders. Thus she always uses warm water, and cannot endure the slightest local application of cold, though cold air braces her. The veins in her throat are very large, and if she tries to work, or stoops forward in the least, she says, "they swell as if they would burst." She cannot read more than a minute or two at a time, and if she does needlework for half an hour it invariably makes her nose bleed. The epistaxis is not profuse, but a slow, continuous trickling. Such, then, are the main facts of the case. I may add that Miss P. menstruates regularly, but suffers from leucorrhœa and bleeding piles, and that she has never from childhood considered herself really strong. On two occasions, at the ages of fifteen and eighteen, she had long and severe attacks of rheumatic gout.

THE SPONTANEOUS PRODUCTION OF URTICARIA.—Dr. Dujardin-Beaumetz exhibited at the Société Médicale des Hopitaux an hysterical woman, who presented a peculiarity of which he knew of no other example. When a word is traced on any part of the body, in a few minutes an elevation of the skin is produced absolutely resembling urticaria, the inscription remaining thus marked for four or five hours, the temperature of the skin being also raised at these points. Neither urticaria nor any other eruption exists on any other part of the body. Prof. Vulpian has also met with a case, in a non-hysterical youth, in which elevations of the skin, like those observed on this patient, could be induced in the same manner; and in another patient Dr. Dujardin-Beaumetz was able to produce erythema at any point to which he applied a magnet. Dr. Besnier observed that in persons liable to urticaria this eruption can often be induced whenever the skin is scratched.—*Gaz. Hebdomadaire*, July 25.

FORTY-SEVENTH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION,
HELD IN CORK, AUGUST 5, 6, 7, AND 8, 1879.

ABSTRACT OF AN
ADDRESS ON PUBLIC MEDICINE.

By ANDREW FERGUS, M.D.,

Crown Member for Scotland in General Medical Council; President of the
Philosophical and Medico-Chirurgical Societies of Glasgow; late
President of the Faculty of Physicians and Surgeons of Glasgow.

PREVENTATIVE OR STATE MEDICINE.

WITHOUT wasting your time in apology or preface, allow me to introduce State Medicine, past, present, and future, dwelling specially on the two first as a subject of my remarks at this time. No doubt science has made great progress since the time of the Mosaic dispensation; but if we are ever to get quit of zymotic diseases, it will be by adopting the laws of Moses in regard to them—rigorously separating the sick from the healthy. Let us hope the time is not far distant when every medical officer shall be endowed with the same stringent powers as were possessed in the time of Moses, who, we must not forget, in what he did for Israel, acted directly under the Divine authority and guidance, as well as being learned in all the learning of the Egyptians, at that time the most cultivated race in the world.

It was not among the Jews merely that lepers were treated by seclusion or exclusion. In the middle ages, in other countries, they were obliged to live apart from the general community, and if they went abroad they had to intimate their presence in various ways—sometimes by rent clothes, and a cry of "Unclean, unclean"; sometimes by using clappers to signify their approach; or, as in some countries, by wearing two bands of *white* wool (no doubt thus symbolising the nature of their disease), one on the head and the other on the breast. So anxious were communities to carry out preventative medicine in the most complete manner, and avoid all possibility of contagion, that the lepers were interred in separate burying-places. Strange to say, sufferers from this disease became dead, in the eye of the law, as soon as the disease was fully developed; they could not hold property, nor inherit it, nor dispose of it, in short, they lost all rights of citizenship. Not content with this, in the middle ages, the Church went through the ceremonial of a leper's funeral by a special service, which was retained in the French ritual till a comparatively recent date. The priest, wearing his stole, and holding up the crucifix, sprinkled the leper with holy water, and conducted him to church, singing the usual burial verses as they went along. In the church his clothes were removed, a funeral pall thrown over him, and the mass was celebrated, with the full service for the burial of the dead. He was again sprinkled with holy water, clothed in a leper's dress, and conveyed to a leper hospital, where the priest, to typify his burial, sprinkled him with earth, and warned him never to appear otherwise than barefooted and wearing his black garment, never to enter a church or any place where corn was ground or bread baked, never even to approach a well or fountain.

It has been supposed that leprosy in Europe was spread by the return of the Crusaders; but there is not sufficient evidence of this, though no doubt it overran Europe about that time, and invaded even the most northern countries; and we can form some idea of its prevalence when we are told that in the thirteenth century there were upwards of two thousand leper hospitals in France. When the first hospital was founded in Scotland I cannot tell; but at Prestwich there was one, which, if not founded by King Robert the Bruce, was at least amply endowed by him. It is still a matter of dispute whether or not the king himself was a leper. In the year 1350 we learn that the Lady of Lochoy built a leper-house at the Gorbals of Glasgow; but some hospitals were founded much earlier, even more than two hundred years before the Glasgow institution. Of

course these hospitals were not like modern hospitals, numbering their inmates by hundreds; but still, so general was this disease in the kingdom, and so much was the necessity of isolation considered a duty and a safeguard to the community, that there were about one hundred leper hospitals in England and Scotland, which were under strict regulations, while the most stringent rules were also enacted to prevent the sick from mixing with the well. In some, under certain precautions, the inmates, on particular days, were allowed to leave to buy provisions, while in others they were punishable by death if they left the hospital; and, to emphasise this regulation, a gallows was erected in front of the leper-house. With regard to the Glasgow house, in the burgh records for 1573 we find that the then magistrates ordered four persons, supposed to be lepers, "to be visait, and gif they be found so, to be secludit of the town in the Hospital at the Brigend."

In the Parliament held at Perth, in 1427, the following is a clause from an Act then passed:—"Item that na lipper folke sit to thig [beg] neither in kirk nor kirk-zaird nor other places within the burrowes, but at their own hospital, and at the port of the towne, and other places outwith the Burrowes." The Act afterwards tells us who were then the sanitary inspectors. The third clause is as follows:—"That the Bishoppes, offchalles, and deanes inquire diligentlie in their visitation of ilk Paroch Kirk gif one be smitted with lipper, and gif any sic [such] be found in that they be delivered to the King if they be Seculares, and gif they be Clerkes to their Bishoppes, and that the burgesses gur keepe this statute under the paine intimit in the statute of Beggars. . . . and quhat leprous that keepis not this statute, that he be banished for ever off that Burgh quhair he disobeyis and in likewise to landwart." After the Reformation the kirk sessions took upon themselves the duty of looking after lepers. Of their dealings with them, records may be found in their minutes of meetings.

Some of the hospitals had ample endowments; but most of them had but scanty permanent support, and derived a precarious income from alms, which were sometimes deposited by passers-by, they being invited to do so by one or other of the inmates soliciting them by loud cries. Occasionally the lepers were allowed to beg in person (with this protection to the public, that they were obliged to use a clapper to warn people to keep from contact with their person). Another curious source of support was from confiscated food. The Scotch Parliament in 1366 enacted:—"Gif ony man brings to the markit corrupt swine or salmond to be sauld, they sall be taken by the bailies, and incontinent without any question, sall be sent to the leper folke, and gif there be no leper folke, they sall be destroyed all uterlie." This shows also that there were inspectors of food in those days.

The regulations for the separation of the plague-stricken were quite as complete and stringent. The sick and their families were obliged to remove out of town. Their friends, under the charge of an officer, could visit them after eleven o'clock, and anyone going before that hour was liable to death. The houses were cleaned, and the clothing of the infected was boiled in the open air. The parties who discharged those duties, and those who were employed as bearers of the dead, were obliged to wear a grey gown, with a white St. Andrew's cross before and behind; the bier was covered with a black cloth with a white St. Andrew's cross. A bell was also attached to it, so that it might ring as it passed along, to warn any person to get out of its way. In September, 1584, the authorities of Aberdeen built ports to prevent the entrance of people who might bring the infection. This does not appear to have been successful, for we find that in May next year the magistrates erected gibbets, "ane at the nearest cross, ane other at the brig of Dee, and the third at the Haven mouth, that in case any infectit person arrive or repair by sea or land to this burgh, or in case ony indweller of this burgh receive, house, or harbour, or give meat or drink to the infectit person or persons, the man to be hangit, and the woman to be drownit." As recently as 1645, two lads who had received change at a public house which was shut up on account of the plague, were next day separated from the family and shut up for a fortnight, their food, etc., being handed in to them. The pocket with the change was cast into the fire. There are many other curious regulations to be found both in Imperial and Burgh laws. I have merely cited the foregoing to show the antiquity of preventative medicine.

Having seen how strict and severe, we might almost say how brutal, were the laws of early times, it becomes an interesting question how all regulations as to preventative measures were allowed to lapse, and not applied to other diseases, such as small-pox, the most obvious as well as the most repelling of our zymotics. It has been imagined that the Reformation might have had some influence on this, but there is no evidence of its being so, and we have already seen that in Scotland the kirk sessions took charge of the leper hospitals. In the minutes of the Kirk Session of Walls, in Shetland, there is a record, under date March 17, 1742, of a resolution to hold a day of thanksgiving for the extinction of leprosy; and the last mention of leprosy in the same session books is in 1776, where there is an order to separate a leper, and to provide food, which was to be brought daily. It may possibly have been the growth of civil liberty which rendered people impatient of any interference with their domestic concerns, while another reason may be that some zymotics have no outward visible eruption, while in others it is so slight as not to be recognised by the public at large.

It is still difficult to get some people to believe that like produces like, not merely in ordinary inorganic life, but also in the region of epidemic disease. Formerly these diseases were attributed to the direct will of the Almighty, the appearance of comets or other physical phenomena, the conjunction of certain planets, or some other astrologer's nonsense. Possibly also, as regards some zymotics, they had taken such hold of the community before they were publicly recognised, that it was in vain to attempt to stop their progress. We need not inquire further into the reason why, but simply accept the fact obvious to all, that till quite recent times no attempt has been made to stay the progress of modern zymotics or improve the health of the community.

This brings us to the consideration of the results that have been achieved by the labours of the sanitarian, and to do this in the most impartial and fullest manner possible I proceed to analyse the whole of the Registrar-General's returns. In No. 8, page 38, of "Mr. Simon's Reports to the Privy Council," there is a table of all the deaths up to that date. I have brought the table down to the present time, and have somewhat changed it, for, while the original is merely a table of gross results, I have made a table of the proportion of deaths in each million of the population at the respective dates, and also given the population for each year.

I shall not trouble you with observations on each year, but shall rather dwell on some leading features. And I would note that there is not a single death from *diphtheria* registered till 1851, when we find two deaths per million of the population. It did not spread rapidly, for in 1857 there are only sixteen deaths in the same. It then rises very suddenly, and reaches its maximum in 1859, when there were as many as 487 deaths per million of the population. Since then it has fluctuated greatly, but has only once been under 100 deaths per annum for every million of the population. I have no doubt it will occur to many of you, possibly to most of our younger members, that, although there were no cases of *diphtheria* registered before 1851, still deaths from it did occur previously to that, but were registered by some other name.

The disease most likely to be confounded with *diphtheria* is, of course, *croup*. If, before the appearance of *diphtheria* as a cause of death in the returns, it had helped to swell the number of the deaths from *croup*, then, as soon as it became a considerable figure in the Registrar's returns, there should have been a fall in the *croup* column. To ascertain whether this was the case, I procured a table of the deaths from that disease, and now show you in a diagram all the deaths both from *croup* and *diphtheria*. We generally find that when the death-rate from *diphtheria* is high, the death-rate from *croup* is high also; and I think it is not unfair to conclude that many of these last were in reality deaths from *diphtheria*.

I now crave your attention to the *diarrhæal* group, the table in regard to which brings out singular results. Beginning with the small number of 225 deaths per million in 1838, we find that they amount to 472 in the last year (viz., 1842) of the first quinquennium. It would be tedious to go over the table year by year; you will see the progress of these diseases in the diagram, and you must bear in mind that the years 1849, 1854, and 1866 are exceptional, each of them having been marked by an outbreak of cholera. I ask

you to compare the first five years with the two last completed periods of like duration. You will find that the average for the first five years (viz., 1838-1842) was 298; for the five years 1867-1871 it was 1161; and for the last completed five years, 1872-1876, 998. In none of these periods was there the disturbing element of epidemic cholera. It is not a little surprising to find that in the second last period there were nearly four times as many deaths from this group as in the first period, and that even in the last quinquennium there were more than three times as many deaths from the *diarrhæal* group as in the first period of five years.

If we consider the other zymotics mentioned in the table, we shall in some of them be able to trace the benefits resulting from the labours of the sanitarian. First comes small-pox, the deaths from which vary from a maximum of 1064 per million of the population in the first year (viz., 1838) to a minimum of 40 in 1875. If we look to the quinquennium, we find that the fourth is the lowest (1857-61, with 187), and the first is the highest (viz., 577), while in the last quinquennium the deaths are 232. It is to be hoped that, as vaccination and revaccination are more stringently carried out, there will be a great diminution in the deaths from this disease. It is most desirable that the prejudices against vaccination should be removed, and possibly this might be greatly helped by the use of animal instead of human vaccine.

Scarlet Fever.—The deaths from this disease vary considerably in the individual years, but not to such an extent if we look to the averages for five years. It is very satisfactory to observe that the last quinquennium has the lowest mortality, viz., 738 in the million of population.

Measles.—The highest mortality from this disease occurs in the first quinquennium, and is 540; the lowest (viz., 370) is in the third; and in the last the number is very little higher, being 375.

Whooping-cough varies less than any of the other zymotics, the maximum death-rate being 542 in the fifth quinquennium, and the minimum 472 in the second.

Fevers vary greatly; the first and second quinquenniums are the highest, viz., 1053 and 1197 respectively, while the last is by far the lowest, viz., 555; and there can be no doubt that this great improvement is owing to what sanitarians have effected.

Better house accommodation and the supervision of medical officers of health have tended in a most marked manner to diminish typhus, which prevailed during the first two periods. This is made plain when we look to the relative prevalence of fevers since in 1869 they were divided into three groups. We find that typhus falls from a death-rate of 193 that year to 49 in the last year, viz., 1876.

Typhoid does not show so well, but the maximum is still in the first year, and the minimum in the last; the numbers for each individual year being 1869, 390; 1870, 387; 1871, 371; 1872, 379; 1873, 376; 1874, 375; 1875, 372; and 1876, 311.

Simple continued fever gives almost as favourable results as typhus, the maximum in 1869 being 245, and the minimum in 1876 being 83. Allow me to direct your attention to the totals of the zymotics mentioned in the table, which you will find lowest in the first and last quinquenniums. If, again, you look to the total deaths per million of the population you will observe that the last quinquennium is the lowest, viz., 21·729; the fourth is next, viz., 22·030; and next to it the first, viz., 22·078.

One other fact is brought out by the study of these returns, viz., how very little change has taken place in the death-rates during all these years. This fact has been noticed by actuaries, and Mr. A. H. Bailey, one of the Vice-Presidents of the Institute of Actuaries, thus writes:—"Mortality: In discussing this well-worn theme the first feeling must be one of disappointment. An impression prevails, among medical men especially, that the duration of life is extending, and that it will be yet further advanced by sanitary improvements. Is there any evidence of this? There has now been a systematic registration of deaths in this country for forty years, and censuses have been periodically taken. During these forty years large sums of money have been expended in sanitary improvements, and what has been the effect on the mortality of the population? Discarding individual years in which there had been fluctuations in both directions from various causes, it happens,

curiously enough, that in each of the three decennial periods, 1841-50, 1851-60, and 1861-70, the rate of mortality has been identical, viz., 22.35 per 1000." (*Journal of the Institute of Actuaries*, July, 1878, vol. xxi., page 120.)

We now turn our attention to the future of State Medicine, and would observe that the standard to be aimed at should be both practical and attainable. I have been in the habit of saying that we should never rest contented till our towns are as healthy as rural districts. The healthiest district over a series of years is Glendale, in the north of Northumberland, in which the death-rate is but 15; and if we had this death-rate all over the kingdom the result would be a diminution of nearly one-third of all the deaths. In the pursuit of this aim, let us inquire whether we can draw any lessons from the Registrar-General's returns.

The first facts that strike us are the increase in the diarrhoeal group, the addition of a new zymotic, viz., diphtheria, which does not appear till 1851,^(a) and the small diminution of typhoid in the fever group.

If we bear in mind that these are excremental-pollution diseases, I believe we shall find the reason of this increase in the fact that we have been careless in the disposal of our excreta, and have been drinking water and breathing air contaminated by it in a state of decomposition.^(b)

When I first turned my attention to public health, I had the most perfect faith in water carriage for the removal of the refuse of communities, but investigation, experiment, and experience have obliged me to change my opinion.

My first investigations referred to decayed soil-pipes, and from observation and analysis I was led to conclude that the decay was produced by gas. I shall not enter into detail on this subject, but merely mention one point of practical importance, that pipes open at the top to the external air last longer than those which are closed.

It was many years after my conviction that the pipes were destroyed by gas before I could satisfactorily explain how it got into them. I knew that there is always decomposition going on in most traps, but the quantity of gas generated there did not appear to me sufficient to account for this action on all lead pipes that had been long enough in use. Tension in sewers occasionally overcoming the traps, being only an accident, could not be an important factor in a constant result. After much consideration, I was helped to a solution of my difficulty by Graham's experiments on the diffusion of gases. I argued that if these diffuse so readily through gases, they might probably do the same through water; and thus, after first being absorbed on the sewer side of the trap, they might be discharged on the house side of the same. I experimented on the subject.

Mr. M'Tear, F.C.S., repeated these experiments with larger tubes, with similar results. He found that the gases passed in a peculiar mode through the water; he says: "A curious fact, and yet one quite to be expected, is here shown, viz., that light gases pass through by the top of the bends, and heavy gases at the bottom; also, that the gas does not saturate the water in the trap by any means, but that it first saturates the surface next the vapour, then the gas seems to sink down in a fine stream, and gradually travels through the liquid to the other side, when it again spreads out and begins to diffuse both into the atmosphere above it, and downwards through the water in the trap; in fact, the most apt illustration of the general appearance is the gradual dispersion of a so-called smoke ring from the funnel of a locomotive."

Another point I had to consider was the behaviour, if we may so term it, of water and excretal matter. If the kidney and bowel secretions are kept separate, decomposition goes on very slowly; if they are mixed it is more rapid, and if water be added it is much accelerated. It is a popular

opinion that water is a purifier, but in regard to these matters it is a mere shunter. It merely removes the nuisance from my door to deposit it somewhere else; it conveys organic refuse, but does not destroy it; it merely carries the nuisance from the city to make it a source of pollution in the river. Chemical science tells us that water of itself and by itself has no purifying power; if you could shut up pure water and pure filth (if we may use such a term), they would remain the same for all time, the only purifying element in the water being the small modicum of air dissolved in it. In a shallow brawling stream, this exercises a considerable power, as the water is constantly being re-aërated; but very slight in a deep, sluggish stream, and hence the ready pollution of our rivers by organic refuse. I hope I shall not be misunderstood and considered as in any way defending the abounding abominations of the old privy system, when I say that the change to water-carriage was adopted without sufficient investigation, and with no adequate conception of the results which would follow. The system was hailed as a great boon both to comfort and decency, and it was at that time supposed that if these offensive matters were once out of sight there was an end of them, and no evil consequences were dreaded.

But another most cogent reason against passing these offensive matters into our rivers or the sea, is the consideration that such a course is directly opposed to the laws of nature, in the economy of which there is no such thing as waste. Earth is the original mother of all organised matter, and her law of rotation seems to be first plants, from which animals draw their support. What is given off from animals should be restored to the earth again. We know that the carbonic acid so freely given off by animals is at once utilised for the growth of plants; but I believe if it had been left to our own disposal, the whole world would have been asphyxiated long ago. The other excretions of animals are equally necessary for the growth of the vegetable world. After years of further study and investigation, I can only adhere to my opinion expressed many years ago, that "if it is true that organic poisons producing disease may pass from sewage; if it is true that cholera, diphtheria, typhoid fever, and diarrhoea are traceable to taking into our systems by air or water the results of decomposition of human excreta; if it is true that these diseases, and others from the same causes, swell our death-rate and carry off some of the most valuable of our population, then, gentlemen, I affirm that the only true sanitary solution of our difficulties is, that all excreta shall either be returned to the earth or subjected to chemical action, rendering decomposition impossible; and I am furthermore sure that if a tithe of the time, skill, and ingenuity, and one-thousandth part of the money, that have been devoted to water-carriage had been spent in investigations in this direction, the problem of the sewage question would have been solved long ago."

TRIPLE AMPUTATION.—An *employé* on the Brest Railway fell from a carriage while in motion, dislocating his elbow, and two other carriages passed over his legs. He was taken to the hospital in a state of syncope, when it was found that the right leg was only held to the thigh by a few slips of muscle and the skin, the femur having been cleanly severed just above the knee and the femoral divided—hæmorrhage being arrested by the instant formation of a clot. The left foot and ankle-joint were broken up into a confused mass. Dr. Léscléuc, surgeon to the Brest Hospital, amputated at once the right thigh, having only to shape into regularity the musculo-cutaneous strips; but he did not remove the left leg until about fifteen hours afterwards, re-action having by this time taken place. Gangrene having invaded the forearm of the left side, on which the dislocation of the elbow had taken place, amputation was performed on the seventeenth day. The patient did very well, having been cured long since, and is now able, by means of apparatus, to walk. M. Rochard brought the case before the Academy of Medicine as a unique example of a patient having survived a triple amputation performed for the same injury. Baron Larrey, however, observed that the case was not unique, for he had seen a man at the Invalides who had undergone amputation of the four limbs; and he had also seen a young Arab in Algeria, who had recovered after having had the four extremities divided by a train.—*Gaz. Hebdomadaire*, August 8.

(a) In regard to this, Mr. Simon asks, "Why diphtheria, which scarcely had had a place in history till it overran Europe in the sixteenth century, and which since then had but rarely been spoken of, has for the last ten years been an important disease in England?" (*Eighth Report*, page 37, year 1865.)

(b) I wish to quote a single paragraph from Mr. Simon's second report to the Privy Council, page 64, in which he confirms Dr. Greenhow's report, and says: "And in this respect one paragraph from the following paper—a paragraph which expresses the most definite result of Dr. Greenhow's observations in all the diarrhoeal districts, and which accords with all the best experience previously obtained in other like investigations—deserves to be well remembered. 'The excess of mortality has in all places been coincident with one or other of two definite local circumstances—(a) the tainting of the atmosphere with the products of organic decomposition, especially of human excrement; or (b) the habitual drinking of impure water.'"

ORIGINAL COMMUNICATIONS.

THE TREATMENT OF UTERINE FIBROIDS
BY ERGOT.(a)By G. ERNEST HERMAN, M.R.C.P. Lond.,
Assistant Obstetric Physician to the London Hospital.

(Concluded from page 184.)

OTHER records of experience or expressions of opinion have been put before the profession, though in a less complete manner. Hildebrandt(b) quotes private communications, one from Scanzoni, in which that author says that in seventeen patients treated with ergot he obtained, on the whole, very satisfactory results, and in three of them the tumours diminished in size; and another from Dr. Bürow, of Königsberg, who tells him that in a patient aged forty-seven, a tumour as big as a child's head diminished till the uterus was but little larger than normal; excessive hæmorrhage was arrested, and the patient's general health, which had been greatly reduced by loss of blood, was completely re-established. He also quotes Dr. Keating, who says that a tumour after sixteen injections diminished to one-third of its former size. Engelmann(c) treated according to Hildebrandt's method eight cases. In five of them, young patients between twenty and thirty, suffering from quickly growing tumours, he had "very satisfactory" results. In the other three, women more than fifty, with very large hard tumours, the result was "almost none." Winckel(d) says that in five cases he has seen considerable diminution of the tumours, and in others lessening of the symptoms; but he does not say how many patients he has treated in this manner.

But before we can accept the conclusion, either that ergot will cause diminution in the size or absorption of fibroids of the uterus, or that the improvement in symptoms which took place in 107 out of 135 cases was at all due to the ergot given to the patients, we must bear in mind, and if possible eliminate, the fallacies which so often vitiate therapeutical inductions. It is chiefly important to establish the fact of their diminution in size; because, if ergot can cause absorption of the tumours, it will be admitted that it can remove the symptoms.

The first fallacy which needs consideration is the error due to mistakes in diagnosis. There have been, for instance, many so-called cures of cancer, in which no doubt the patients recovered, but it is nearly as certain that they never had cancer. It may be said that in the cases in which fibroids were thought to have got smaller or to have disappeared under ergot, a like error makes the inference a wrong one: that either the tumour was a swelling of some other kind, of which the lessening in size was merely part of its natural course: or that there was no tumour at all. I think this mistake is in the cases just quoted as completely eliminated as it can possibly be. The diagnosis of fibroids of the uterus, though sometimes very difficult or even impossible, is yet often, probably in the majority of cases, very easy and certain. The cases in question not only are narrated by several independent observers, some of whom are men of very large experience in the diagnosis of the diseases peculiar to women, and of great distinction in that department of medicine; but the signs which led to the diagnosis are in many of the cases given with such detail, that every other condition can be excluded. I therefore believe that it is as certain as any clinical fact in uterine pathology can be, that there have been a good number of cases in which fibroids diminished in size while the patient was being treated with ergot.

Another fallacy is this: admitting that the diagnosis is correct, the effect following a particular treatment may be due to some other concurrent circumstance, and not to the treatment. But we know of nothing else which will reduce these tumours (except that puerperal involution may do so, and none of the cases in question were undergoing that process, with the possible exception of Schwenniger's). Cases have been described in which fibroids have spontaneously dis-

appeared; but such are very rare, and we know nothing of the cause of this occurrence. When we find diminution in the size of these tumours so often coinciding with the administration of a drug, it seems to me far more likely to be due to the remedy, than to the exceedingly rare and quite unknown causes which lead to their spontaneous absorption. My own cases, in which marked relief to symptoms followed, were mostly hospital out-patients, treated at different times of year, and living under various conditions; but, so far as could be known, these conditions remaining unaltered during the treatment. So that I think that here any other concurrent influence can be excluded.

But the fallacy by which we are most likely to be misled is this, that we may take for the effect of our remedy that which is really only the natural course of the disease.

Of the natural course of fibroid tumours of the uterus, the circumstances which regulate their rate of growth, and the size they attain, and the conditions which bring about the appearance and subsidence of the symptoms, we know very little. It is believed that, when the climacteric is reached, many tumours cease to grow; and, in most cases, the symptoms (other than those mechanically caused by the weight and bulk of the tumour) diminish and disappear. But there are exceptions to this rule, as some of my own cases show. In many cases the tumour reaches a certain size and then stops growing, although the patient be much below the climacteric age. The symptoms, also, may reach a certain degree of severity and never exceed it. Why it is that this happens we do not know, nor can we foretell its occurrence. Sometimes, on the other hand, symptoms persist long after the menopause.

With reference to this it will have been seen that many of those patients in whom the improvement following the ergot was most marked, were much below the climacteric age. And, although in some cases the symptoms do spontaneously cease before the menopause, yet I believe, judging first from the course of cases in which ergot was not given, and second, from the frequency with which patients recount to us a very long duration of illness, that early cessation of symptoms does not usually occur nearly so often as it has been observed in cases treated by ergot. I therefore think there is good reason to believe that, in many of the cases under consideration, diminution in symptoms would not have taken place had ergot not been given; in other words, that the benefit was due to the ergot.

In short, I think that there is adequate evidence to justify the belief that ergot will often cause diminution in the size of fibroids of the uterus, or permanent arrest of symptoms; and that in the majority of cases it will relieve hæmorrhages arising from the presence of these growths.

This being accepted as a clinical fact, the next thing which has to be done is to point out, if possible; what are the cases in which a beneficial effect from ergot may be expected, and what, on the contrary, those in which it is useless to give it. Here it is as yet necessary to speak chiefly from theoretical considerations, for only a few of the reported cases are described fully enough to throw light on this question.

Ergot does two things: it increases contraction of the uterus, and contraction of the small arteries. By the former or by both of these effects, the result to the tumour may be explained. The amount of blood which the tumour receives is lessened both by compression of the vessels supplying it, owing to uterine contraction, and by diminution of their calibre; for they are mostly small arteries, such as possess a muscular coat: and to this is added a squeezing of the tumour by the contracting uterus. If the tumour be soft and vascular, and if at the same time these two effects—a powerful squeezing of the tumour, and a lessened supply of blood to it—be at once brought about by the ergot, a diminution in its size is easily explained.

It is to be expected, on this principle, that a hard tumour, scantily supplied with blood, would be very little susceptible of change: a soft vascular tumour, containing much fluid in its meshes, would be more likely to undergo diminution; while if the tumour were in a condition like that which in other parts is called œdema, a very rapid diminution in its size would not be surprising. Looking at the reports of those cases of diminution in the size of the tumour of which we have the fullest and most exact accounts, we find that their softness is usually a prominent feature; theory and clinical experience thus harmonising.

Other conditions have been laid down. Thus, Hildebrandt

(a) A paper read before the Hunterian Society, March 12, 1879.

(b) *American Journal of Obstetrics*, vol. vii., 1875, page 529.(c) *Transactions of the Edinburgh Obstetrical Society*, vol. iv., page 400.(d) *Sammlung Klinischer Vorträge*, No. 98, 1876.

says that the uterus must not be fixed by inflammatory exudation or adhesions; and Leopold adds that the ergot treatment is not suitable to cases in which there are numerous tumours isolated from one another, enlarging the uterine cavity. I do not myself see why these conditions should prevent the ergot from having a beneficial action. Hildebrandt also says that the tumour ought not to have undergone fatty degeneration. Leopold says that the muscular structure of the uterus must not be atrophied, nor its vessels degenerate. Fehling thinks ergot powerful against a myoma, but not against a fibroma. Spiegelberg(e) thinks that the complete absorption of an intra-mural fibroid is possible only when it is not enclosed in a capsule, but merges directly, without any boundary, into the tissues of the uterus. Whether theoretically sound or not, I do not think that these qualifications are of much clinical value, as in most cases of the kind it must be difficult to find out the presence or absence of the qualifying conditions. It is noteworthy that Engelmann,(f) who lauds the effect of the Kreuznach waters upon these growths, ascribes their influence to the uterine contraction excited by them; and that Spiegelberg,(g) reporting a case of spontaneous absorption of a fibroid following the use of a tent, attributes its occurrence to uterine contraction provoked by the dilating agent.

Similar questions concerning relief to symptoms are more difficult to exactly answer, because the kind and degree of symptoms to which fibroids of the uterus give rise, depend upon conditions, such as the size and situation of the tumour, its nearness to the mucous surface of the uterus, the magnitude of its vessels, etc., some of which cannot always be ascertained without putting the patient to a good deal of discomfort, and to some unnecessary risk; and some of which cannot during life be ascertained at all. Sometimes these tumours cause disturbance by their mechanical pressure; and benefit to such symptoms will evidently be proportional to the diminution in size of the tumour. The hæmorrhage brought about by fibroid tumours may be capillary, being excessive in amount partly because the tumour acts as an irritant, and attracts to the uterus a greater quantity of blood than flows to it in health, and therefore during menstruation larger vessels are opened than was formerly the case; and partly because there may be enlargement of the uterine cavity, and hence an increase in the area of the bleeding surface: both these conditions leading to undue loss of blood. Were this the explanation of the hæmorrhage in all cases, one would expect a remedy which at once procures contraction of the uterus and contraction of its arteries, to constantly relieve it. But the bleeding may also come from the opening by rupture or ulceration of one of the large veins which sometimes run on the surface of these tumours. This form of hæmorrhage may be so copious as to cause death, and it is difficult to see how anything should stop it that does not directly occlude the hole in the vessel. It is probable that in some cases of which I have known, in which ergot has been followed by increase of the hæmorrhage, the explanation has been, that the uterine contraction induced by the drug, forcing the tumour towards the surface, may have ruptured some vessels running in the mucous membrane over the growth.

I do not think we can at present say more than this: that the administration of ergot will sometimes cause the diminution in size, or even complete absorption, of fibroids of the uterus, this being more likely to happen in the softer tumours; and that in the majority of cases it will relieve or remove the symptoms. These two general propositions are supported, not merely by a concurrence of testimony from those who have employed the treatment, but by the strong evidence of cases reported in detail by some of the most competent observers living.

There is a use of ergot to which I have not specially referred in what has gone before, because it relates to a class of cases clinically distinct, and in which the ergot is not the principal agent of cure. There are cases in which the tumour tends to become polypoid, and in which ergot is of the greatest use by exciting or increasing uterine contraction, thus favouring this tendency, and forcing the tumour down into the vagina, where it can be more safely and easily dealt with surgically. This is a process analogous to that of labour, and which, like labour, takes place without our

interference. But unfortunately, while the uterus is being, as it were, slowly delivered of the tumour, the patient is being weakened and her life jeopardised by hæmorrhage. Here the use of ergot to hasten the process is of great value; and I think that when the tumour is presenting at the os uteri, it is well to at least try the effect of ergot, before resorting to the artificial dilatation of the cervix with tents, to knife, or to scissors. I abstain from quoting cases in proof, because we do not know accurately enough the time usually taken by a polypus to dilate the os and descend into the vagina, to admit of exact demonstration that the process is accelerated by ergot. But I think the analogy with labour is so close, that we need have no scruple in admitting as a fact the similar action of ergot in the two conditions.

The mode of administration of the ergot is an important practical point. The treatment recommended by Hildebrandt is the hypodermic injection of ergotine into the abdominal wall in the neighbourhood of the tumour. In this way he thinks it acts more energetically than when given by the mouth; and in some cases, reported by Hildebrandt and by others, after the drug had been given for some time by the mouth without effect, its subcutaneous administration was followed by benefit. And some valuable experiments upon living animals by Peton(h) appear to show that ergot given by hypodermic injection has a definite local action upon the vessels of that neighbourhood, the effect upon the arteries supplying a distant part being slight and tardy in appearance, but upon those of the part itself quick and powerful.(i) But this method has the disadvantage of being painful, and further that it requires the patient to be seen more often and watched more closely than is practicable in hospital out-patient practice. And if, as it seems reasonable to think, the effects of the two methods only differ in degree, one would expect at least some benefit to follow its internal administration. For these reasons I have mostly been content to give it by the mouth. It is to be remarked that many of those who have recorded good results from the use of ergotine have injected it into the subcutaneous tissue in various parts, and not in the neighbourhood of the tumour; and, also, that the remarkable result which Dr. Gairdner recorded, followed a dose given by the mouth. I therefore conclude that the hypodermic use of the drug, although advantageous, is yet not essential. The severity of the local discomfort caused by the drug seems to depend a good deal on the preparation used, and, in some degree, upon the idiosyncrasy of the patient. It is not necessary here to draw comparisons between, or quote opinions about, the extracts made by different German, French, and American pharmacists, because the preparations made by our own chemists are so much more conveniently got. I have employed subcutaneous injections, both of ergotin and sclerotic acid, not merely for fibroids, but for uterine hæmorrhages due to other causes. The ergotin has been got from several chemists, and I have not noticed any difference in the effects. The injections seemed to almost constantly produce red, indurated, painful nodules at the point of puncture. I have not observed any great dissimilarity in this respect between ergotin and sclerotic acid, although I have looked for it. Possibly the less disagreeable local results of sclerotic acid which have been described may be due to the dose of it which was thought necessary being smaller than that judged desirable with ergotin. The severity of the local effects certainly increases with the dose. Atthill says that he found an extract made with glycerine produce abscesses, which did not follow injections of a watery extract. There seems no doubt, also, that all the present fluid preparations, including sclerotic acid, are more or less unstable, and that it is well, in order that the solution injected may be tolerably fresh, that only a small quantity of it should be prepared at one time. On account of the diversity of the preparations employed, it seems to me that there are not at present data from which to state what is the smallest dose that will produce an appreciable effect, or what the dose most generally useful. Chemists are working at the more perfect isolation of the active principle of the drug, so that it is to be hoped we may before long be in possession of a more stable

(h) "De l'Action Physiologique et Thérapeutique de l'Ergot de Seigle." Paris, 1878.

(i) Brown-Séquard also says that the effect of ergotine is dependent upon a direct influence on the muscular structure of the vessels. (Wagner's "General Pathology," translated by Van Duyn and Seguin, page 1:5.)

(e) *Archiv für Gynäkologie*, Bd. vi., S. 517. (f) *Op. cit.* (g) *Op. cit.*

and definite form of the remedy. Sclerotic acid seems to me, from my present limited experience of it, as good as any other.

A word requires to be said about the toxic symptoms—pallor, faintness, giddiness, vomiting, cramps in the limbs, and collapse—which have sometimes followed the use of ergot. To go into the whole of this subject would unduly extend the present paper; I must therefore ask permission to simply express an opinion, which is, that their occurrence depends upon an idiosyncrasy of the patient, in the same way as the symptoms which occasionally follow iodide of potassium; and that we cannot recognise this idiosyncrasy beforehand. If this peculiarity be present, the symptoms will manifest themselves after a few doses, and will subside when the drug is left off. These cases are not frequent, nor the symptoms severe enough, to form ground for hesitating before trying the remedy. They are simply a reason why the effect of the drug should be carefully watched. If they occur, we should infer that the ergot treatment is not suitable for that patient.

The practical point which is the outcome of all this, relates to the place which ergot ought to hold among the different modes of treatment applicable to these tumours. First, let us consider what it is necessary to do. Fibroids may exist in the uterus without causing any symptoms whatever, without giving rise to the slightest inconvenience or suffering, or in the least shortening life. In such cases, of course, no treatment is required. It therefore follows, that if symptoms caused by the fibroid can be removed, the patient is practically cured, even though the tumour be still present. If ergot can remove the symptoms, it can do all that is desirable to attempt.

If the conclusions I have arrived at be sound, ergot has a greater effect upon these tumours than any other drug, and therefore should be given in preference to any other medicine. It may be enough to give it by the mouth, but if this be ineffective, it should be injected under the skin in the neighbourhood of the tumour. Seeing that, so far as we know, the administration of ergot is perfectly safe, this treatment should be tried, except in those rare cases in which, either from profuse bleeding or from dangerous pressure on other parts, life is immediately threatened, and some measure which shall be promptly effective is required; cases in which the effect of ergot may perhaps be too slow. Putting aside these exceptional cases, I think it will be admitted that no attempt at enucleation of the tumour, or its removal by abdominal section, should be thought of till the effect of ergot has been tried. The measure which at present is perhaps most relied on, and with which therefore ergot has to be compared, is the incision of the cervix, an operation which it is known is often followed by relief to symptoms. Its efficacy has been attested by many good observers; but no author that I am aware of has published his cases in such a manner as to show what are the cases in which it is most useful, and what amount of probability there is that it will do good. Even when it is followed by improvement, it is difficult to decide how far the benefit is due simply to the division of the cervix, and how far to the rest in bed, the probably somewhat restricted diet, and the slight local depletion, which commonly accompany such a proceeding. And it is an operation attended with some risk, although we have no data from which to state what amount. All we can say is that it often diminishes symptoms, but is sometimes followed by dangerous hæmorrhage or peritonitis, or perhaps death. The risk no doubt can be reduced to a minimum by caution in its performance; but I have known these results follow it when done by men of great experience.

The ergot treatment is free from risk, and therefore I think we should give it a full trial before resorting to surgical measures. The softer tumours—those which often give rise to much hæmorrhage—are precisely those which are most likely to be benefited by ergot.

In conclusion, I would offer the three following propositions as being warranted by the facts before the profession:—

1. That ergot will often produce the diminution in size, and sometimes even complete absorption, of fibroid tumours of the uterus, and will, in the majority of cases, relieve their symptoms.

2. That these effects will often follow the administration of the drug by the mouth, but will more certainly be produced by its hypodermic injection in the neighbourhood of the tumour.

3. That in all cases in which treatment is required, except those in which surgical interference is needed to avert immediate danger to life, this treatment should be tried before resorting to operative measures.

REMARKS ON

SIX CASES OF ELEPHANTIASIS GRÆCORUM TREATED WITH CHAULMOOGRA OIL.

By ROBERT LIVEING, M.D. Cantab., F.R.C.P. Lond.,
Lecturer on Diseases of the Skin to the Middlesex Hospital.

FROM the comparative rarity of true leprosy in this country it is very difficult to obtain a sufficient number of cases on which to base our conclusions as to the effect of treatment; and therefore the positive results of any experiments in the use of drugs must be received with caution. There is another fact which must also be taken into consideration, namely, that leprosy—at least in healthy climates—is liable to long periods of comparative rest or subsidence, quite apart from any special treatment. It is, in short, one of the features of the disease that it does not progress uniformly. Sometimes it appears for a time to be cured, and then breaks out again without any apparent cause. It is very necessary to bear these facts in mind, because those who are unacquainted with the peculiarities of the disease are apt to attribute to remedies what really is the natural course of the malady under the influence of a mild and healthy climate.

Since the publication of my Goulstonian Lectures on this disease, in 1873, I have had in all over twenty cases of true leprosy under my care; and I have given, as far as I was able in a limited number of cases, a fair trial to the Gurjun and Chaulmoogra oils. My conclusion is that neither remedy can be regarded as a specific for the disease. Chaulmoogra oil has long been used in India for the treatment of leprosy, and has acquired a considerable reputation as a therapeutical agent; but I have never met with one well-authenticated case of complete cure under its influence. I have given a long and continuous trial to Chaulmoogra oil in six cases of this disease, and with apparent benefit in all; and the patients themselves have been strongly impressed with the belief that they had decidedly improved under its internal use as a medicine. On the other hand, not one case has been cured, though in several instances the oil has been taken continuously in full doses for more than a year, and in one instance for more than two years. I would add that all the cases of leprosy on which I tried the effect of the oil were of several years' standing.

INDIAN NOTES.

By F. R. HOGG, Surgeon-Major.

THE VOYAGE OUT.

IN 1872 at the co-operative stores were purchased strong leather portmanteaus, which, legibly numbered and marked with large zigzags in white paint, are still serviceable in 1879 after endless trials of endurance on board ship, in camp, in bullock-carts, else when conveyed by elephants, mules, rolling camels, or reckless coolies. Exposed to heat, rain, cold, the ravages of insects, the vicissitudes of travel, these portmanteaus answered better than boxes of wood or tin. One key, worn always on a steel watch-chain (together with scissors, pencil, corkscrew, knife, and button-hook incorporated), will suffice to open every package. Drawer-cases dragged about Canada in 1861 proved an incumbrance in Bengal, and on a Himalayan road were smashed by falling rocks. At large stations, what with auctions or bazaars, all needful furniture can gradually be reasonably bought. Leaving their measure, especially for boots, ladies can get things out so easily by parcel-post that, beyond voyage requirements, an outfit could be considerably reduced. From really good chemists mothers should procure a tin box containing quinine, ipecac, chlorodyne, bromide of potassium, pyretic saline, aperient pills, and mustard-leaves. From the best shops get patent foods, condensed milk, cocoa, biscuits; also be provided with soap, towels, stomach-warmer,

child's enema, flannel belts, waterproof sheeting, extra feeding-bottles, tubing,—in fact, all nursery essentials. Disinfectants can be obtained on board, as well as toilet-vinegar; and lavender-water is procurable from the steward. Asthmatic persons should take a stock of stramonium cigars. Surgical appliances, trusses, elastic stockings, spectacles, take in duplicate; and remember that during sea-sickness artificial teeth might be lost. Dinner-napkins are not supplied in saloon. Racks and cabin-pegs being limited, it is expedient to keep small articles in numbered bags. Take paper cuffs, collars, or other appendages, besides plenty of linen and under-clothing. A certain amount of washing is conducted on the voyage, but beware of the risk in sending things ashore at Malta when the stay is short. There the bath-sponges, lace, coral, cameos, silver filagree, are not particularly cheap. White kid gloves are reasonable, and at Port Saïd the capital bath slippers are worth buying. Retaining twenty sovereigns for contingencies, conceal as many more as possible in the heavy baggage for profitable exchange in India. This baggage is to be labelled in large letters on a white ground. That intended for present use should be marked on a green ground, "Present-use Baggage-Room for Ladies only," and will be daily accessible. In the cabin each officer or lady will be allowed two portmanteaus, each thirty-six inches long, fifteen wide, fourteen deep, and bearing yellow labels. It is safer to have these coloured designations liberally painted over packages, as rough handling is unavoidable. Any amount of rope cording will be valuable for the protection of boxes containing saddlery. Unframed pictures, especially chromo-lithographs (packed in portmanteaus), will be always portable, and sell well at auctions. Officers and ladies outward bound are recommended to have their light clothing for use in the Red Sea, and on homeward voyage thick clothing packed in separate boxes, distinguished by a blue label marked "Change of clothing required at Suez—Baggage-Room." These boxes, stored near the door of the baggage-room, can be found soon after leaving Suez or Port Saïd. Bed-linen provided for military officers and families will be changed thrice on the voyage. The colonel commanding will take charge of money or valuables if packed in small compass. All bills must be paid in cash before disembarkation. According to "regulations for her Majesty's Indian troop-ships," the messing charges for families of military officers or others entitled to passage at the public expense will be:—For ladies over sixteen years, 5s. a day; children seven to sixteen, 3s. 4d.; from one to seven, 2s. 6d.; for infants, no charge; for female servant, 9d. to 2s. a day, according to rates.

Certain Rules.—Children and nurses to keep on starboard side of deck. Children to be out of the saloon except at meals. (It would be a great boon if all vessels had a small place of shelter on deck similar to that of the *Serapis*.) Except on medical certificate, no food allowed in cabins—a very wholesome rule, as putrefaction becomes rapid. Ports and scuttles to be opened by carpenters only, as the drenching sea is very treacherous. Damp or wet clothes not to be hung up in cabins, but on deck lines—a very inconvenient plan, ladies think, whilst forgetting the pestilential dangers. No regulations can be too stringent to check people careless about matches or unprotected lighted candles. On dark nights it may be difficult to meet infantile wants, and where absolutely necessary the fixed lamps will be kept burning.

Ladies' Cabin.—Accommodating seven occupants, greatly depending on each other for peace, quiet, comfort, and health-preservation. Twice a week the captain goes round, when, excepting invalids, all are out. At other times no persuasion will induce certain ladies to sit in the saloon or up on deck. Sickness is provoked, and the others are made miserable. Jewellery, rings, bracelets, trinkets, should be packed up in the heavy baggage in boxes secured with letter-puzzle padlocks.

Nursery.—Accommodating twelve to twenty-four children, will require constant attention to enforce cleanliness to avert pestilence. Disinfectants, especially carbolic acid, frequently required. Turpentine might be sprinkled over linen generally, and certain woodwork periodically tarred to disgust insects, likewise to combat any latent poison, for instance, measles, whooping-cough, diphtheria, or erysipelas. Nurses must not congregate here at all hours. To prevent thrush or diarrhoea mothers must see that feeding-bottles and tubes are washed out with Condy's fluid; also that condensed milk and patent foods be properly cooked. Baths should be

fitted with steam-pipes, for besides lavatory purposes, what with infantile cramp, croup, colic at night, it is extremely difficult quickly to get cans of hot water to meet contingencies not admitting of delay. Saloon meals appear very good, but the time is scarcely sufficient for dinner to avoid bolting of food by hungry boys and nurses. At once place the children's seats near the carver, and make friends with the chief steward. At Malta or Port Saïd do not stuff the family with oranges and sweets.

Possible Ailments.—Infantile convulsions, especially during storms, hot weather, general turmoil or excessive noise at night. Unaccustomed food, salt meat, biscuits, coarse puddings, the want of vegetables or lime-juice, the troubles of teething, want of cleanliness, bad smells, constant cooping up in cabins, will provoke tendencies to diarrhoea, boils, debility, or scurvy. Turpentine enemata, cold applications to head, mustard poultices, and the gum lancet, may be required. In warm weather, late in the day, after a heavy meal, when the sun has declined so as to slant beneath the awnings, when the air is still and stifling, or when unavoidably all ports have been closed even for a very short time, the apoplectic require care. Light sun-hats should be secured with stout elastic; intense glare mitigated by blue or green goggles; thirst relieved by tea or claret-and-water, to the exclusion of beer, spirits, sherry, or port. Besides ophthalmia, bronchitis, infantile remittent, toothache, headache, neuralgia, disposition to various hæmorrhages, and for trifling scratches to become festered, the other ailments most common will be phases of dyspepsia due to want of exercise or over-eating. Insufficiency of warm clothing is a common mistake, and great will be the comfort afforded by thick-soled boots, warm slippers, a stout ulster, thick veils, and flannel nightcaps. Pain may be averted by visits to dentists, oculists, or chiropodists before embarkation, and comfort increased by close hair-cutting. Prickly heat, the first step towards comparative acclimatisation, can be relieved by careful diet and the application of sulphate of copper. Mild mumps may appear after prolonged wet weather in winter months, or be imported in the same manner as measles, variola, varicella, whooping-cough, enteric or scarlet fever; hence previous precautions to avoid infection risks, and even the youngest infant should bear vaccination marks. Sore throats on the Suez Canal have been attributed to floating fungi flourishing in polluted air. Colds are due to draughts, or to chills on deck after close confinement below. Mild fever about Malta differs from the thermal variety of the Red Sea. When mothers want cabin lights after hours, bear in mind that the consumption of oxygen and the production of carbonic acid by each lamp will materially increase headache, lassitude, and general malaise. Unless space be ample, ventilation, in spite of cowls, wind-sails, steam-jets, or pneumatic contrivances, appears impracticable without causing currents of air injurious to some persons; therefore all the more occasion to spend most of the day, if possible, on deck. When coaling, or if awnings be removed, the wearing of goggles will protect the eyes from painfully irritating grit; and to avoid the facial neuralgia of cutting winds, ladies should wear warm cloth caps with ear-flaps. Deck-swabbing, however injurious, cannot be stopped, as ships foul so quickly, especially under the influences of moist, muggy heat; but on return voyage, after passing Gibraltar, dry scrubbing and hot sand can be substituted in cold or sickly weather. At Malta, hot and dusty in summer, muddy and cold in winter, exposed to blazing sun, to damp south-east wind and heavy dew, it is not unlikely that headaches, influenza, or sea-sickness may here temporarily relapse, and fretty children who had forgotten any tossing in the Bay of Biscay may now recommence to aggravate the miseries of the night by the weary constant cry so annoying to invalids or old bachelors, who in vain plug their ears with cotton wool, and more than annoying to poor worn-out mothers deserving of all sympathy when doing their best to lull fractious little ones. At Malta and Port Saïd keep away from sick beggars with sore eyes. In the Suez Canal, the hot day, the sand, glare, and dust will be succeeded, when anchored for the night, by chilly cold, heavy dew on deck, perhaps a stuffy air in the cabins, and the bath water may not be satisfactory. If the road be clear the eighty-eight miles are soon accomplished, as the navigation is now so well known, and the channel appears to clear itself without dredging. Although the Red Sea is hot all the year round (80° to 88° in cabins during

trooping season, from October to March), still the heat is comparatively dry and often less oppressive than a lower temperature in mid-ocean for the five days. If the ports have to be closed it is unpleasant below, whilst on deck a damp, moist, salt, sandy wind may account for rheumatism or infantile colic. The Indian Ocean is rather enjoyable except during cyclones, the temperature 77° to 85°. Bombay would be about 83°. As regards sleeping on deck under an awning, there would appear no difficulty about ladies and children there seeking repose on sultry nights, but opinions are greatly divided, as cramp, colic, or neuralgia liabilities have to be taken into consideration. Many strong ladies, it is reasonable to believe, would appreciate the privilege of having a place screened off, where, suitably attired in flannel, they could lie down on deck.

Sea-Sickness.—Amongst endless uncertain remedies or suggestions, occasionally serviceable, may be mentioned oxalate of cerium in four-grain pills, chloral, creasote, pyretic saline, chloroform or nitrite of amyl inhalation, tight belts, ice-bags to spine, galvanic belts. After blue pill, colocynth, and podophyllin, slop diet, ice-sucking, sinapisms over neck and stomach, recumbent position, free ventilation, a very hopeful treatment is for the surgeon to try morphia hypodermically. Champagne is too often a mere waste of money; and chlorodyne may upset digestion entirely. Relapses may be provoked by night-chills or dietary indiscretions at Malta.

The Voyage.—Portsmouth to Gibraltar, 1127 miles; Malta, 988; Port Saïd, 937; Suez, 88; Perim, 1201; Aden, 97; Bombay, 1644; stopping at Malta one day and night, at Port Saïd a few hours, at Suez just time for postal arrangements. In the ship's library will be found books telling about interesting places passed; but too often even the most attractive novel only lulls to sleep the languid, short-tempered traveller. The medical manuals by Bull, Chavasse, or Moore (the latter specially arranged for India) can always be obtained from Calcutta. With music on board all stereotyped amusements will be eclipsed by dancing exercise. Awnings are spread during nights in Red Sea and Indian Ocean, or whenever practicable. The change of climate is rapid in the short time, long enough for *ennui*. The voyage may soothe, brace, excite, or irritate the nervous or digestive system. Cases of dyspepsia, rheumatism, gout, asthma, bronchitis, hysteria, sick headache, dimness of vision, and many skin diseases, may marvellously improve. Containing ozone, aqueous vapour, bromine, iodine, etc., sea air is pure, free from organic particles, and, having comparatively an equable temperature, must prove extremely beneficial to the majority of deck promenaders.

SOME time ago, Dr. Burgess, of Spilsby, recorded the following interesting case:—"William S. G., born April 10, was the subject of double congenital inguinal hernia. For a month the child enjoyed good health, and all its functions were properly performed. On May 15, however, the left hernia showed symptoms of strangulation. Twenty-four hours after the child was taken ill I was sent for, and found the scrotum enlarged and bulging on both sides, the penis being reduced to a mere tubercle; the abdomen distended, highly tympanitic, and painful on pressure; the pulse quick and weak; the bowels constipated; the tongue furred; stercoraceous vomiting occurring every few minutes; and the child crying in a faint, exhausted manner—in short, presenting every appearance of being *in extremis*. The right hernia was soft and easily reduced; the left was firm, lumpy, and bright on the surface, and refused, after a quarter of an hour's cautious taxis, to yield in the slightest. I then had recourse to enemata of soap and warm water, and succeeded in bringing away some fetid brown mucoid substance from the lower bowel; still the hernia refused to go up. I next got the unfortunate little patient into a hot bath, and fomented the part well with a soft sponge for a quarter of an hour, when, after a few minutes' careful manipulation, the bowel gradually ascended from the scrotum. Keeping my thumbs over each inguinal canal whilst the child was being removed from the bath, I applied pads and a figure-of-eight bandage in the usual manner, the scrotum at this time being quite small and corrugated. Since then the vomiting has ceased, the bowels have been regularly moved, the abdomen has diminished in size, food has been regularly taken, and the child restored to its usual health."

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

A CASE OF HÆMOGLOBINURIA, GANGRENE OF THE FINGERS, ETC., ASSOCIATED WITH PROLONGED SUPPURATION.

(Under the care of Dr. WILKS.)

SAMUEL I., aged sixteen, was admitted into hospital on December 30, 1878. Both his father and mother were alive, and his family history was altogether good; there was no account of any previous illness. He stated that about three years before admission he had knocked his right hip against a wheel; until eighteen months afterwards he was not troubled with the hip, but then the part formerly injured became painful and swollen. About six months later an abscess burst over the great trochanter, which continued to discharge until admission. On December 4, patient was admitted into the hospital under the care of Mr. Bryant. At that time the leg was described as being much swollen, with a sinus on the outer side of the right great trochanter, and a little below it, about which spot there was pain on pressure. Patient did not complain of pain on any movement of the femur in the acetabulum, or on pressure along the vertebral or sacro-iliac articulation. There was no thickening of the femur, and the condition was diagnosed to be one of suppuration of the bursa between the gluteus maximus and the great trochanter of the femur. The urine was described as having been bloody six weeks before patient was admitted. While in the surgical wards some ecchymosis of the cheek was noticed, and the discharge from the sinus was very profuse. When transferred to the care of Dr. Wilks, the following additional notes of his condition were taken:—"He is very cyanotic, and has always been so; pulsation is visible at the root of the neck. The heart's apex-beat is not displaced, there is no thrill, but the cardiac dulness is much increased. Over the junction of the third costal cartilage with the sternum on the right side there is a distinct systolic, short, whipping bruit; the second sound is very accentuated over the aortic and pulmonary area. The respiratory organs are normal. Micturition is frequent; the urine is of a dark-red or smoky hue; the quantity passed is about two pints in twenty-four hours; specific gravity 1010, no sugar, but there is a precipitate with nitric acid, and the guaiacum-test shows the presence of blood. Microscopic examination shows the presence of granular casts, much *débris*, but there is doubt as to the presence of blood corpuscles. The general appearance of patient is somewhat cadaverous; there are congested patches of purplish hue on either cheek at the root of the nose. The skin is cool, dry, anæmic. He says he has lost weight. His teeth are good; nails curved. There is puffing of hands and face in the mornings. The abdomen is tumid and tender in the right hypochondriac region. Liver dulness is normal. His appetite is bad; he complains of thirst, and has had diarrhoea while in the surgical ward. Temperature 99°; respirations 34; pulse 106."

The progress of the case is shown by the following extract from the clinical clerk's reports:—

January 14.—The edges of both ears appear to be becoming gangrenous from feeble circulation. He has complained of cold, and feels very low.

25th.—The urine is bright red in colour; specific gravity 1010; it is albuminous, and gives the blood reaction to the guaiacum test, but no corpuscles can be detected. The spots on the face are disappearing, but the ears are livid, the edges being darkly stained of a prune colour.

29th.—Patient has been in great pain. The tip of the nose and cheeks are of a dark purple colour. The plantar surfaces of the toes are very painful and have a congested look. The fingers of the right hand and the fourth finger of the left have also a cyanotic look, and are painful. No corpuscles can be made out in the urine.

30th.—All the fingers of the right hand and the fourth and fifth fingers of the left hand to the extent of the third phalanx are affected; also, to a less degree, the toes of the left foot.

There are patches also on the left elbow, and one near the wrist of the same arm. The bowels are constipated.

February 15.—Since January 30, patient has several times been in great pain, but has had intermissions when he felt better. The urine has not altered in character, but it is noted on January 31 that corpuscles and casts were seen. To-day the tip of the forefinger of the left hand is quite black and hard to the feel.

25th.—Patient has been in great pain, and frequently cries out; he is unable to sleep at night, and complains chiefly of his fingers. The middle finger of the left hand is quite black and dry. The urine remains about the same.

March 6.—The thumb, index and little fingers of right hand have turned quite black and mummified at the top. His bowels are constipated. The wound in the thigh continues to discharge freely.

7th.—All the fingers of the right hand have turned black at the tips.

11th.—The ring and little fingers of the left hand are black as far as the first joints. The discolouration is extending down the fingers of both sides, and on the backs of the hands little patches are forming; around some of these blisters are formed, which burst and discharge a thin serum.

18th.—The gangrenous condition seems to extend further up the fingers day by day. The backs of the hands are turning of a darker colour. The urine is unaltered. He complains very much of pain.

24th.—The fingers are much swollen, and at the margins of the gangrene some serum is exuding. The wound in the hip discharges profusely.

April 12.—It is noted on April 4, that on examination of the blood the white corpuscles were larger than usual, and there was excess of fibrine present. A quantity of clear yellowish serum is being discharged from the index and ring fingers of the right hand round the margins of the gangrenous parts.

19th.—All the fingers and the thumbs of both hands are much swollen, and the tops of each seem to be sloughing off. The urine varies in colour, being generally light in the evening and smoky-coloured in the morning.

26th.—Patient has profuse sweats in the night, and afterwards becomes very cold. The process of sloughing seems more active in the left hand than in the right. Temperature normal. Urine unaltered.

May 14.—Patient has been going on without much change. There is free discharge from the fingers, and to-day the terminal phalanx of the index finger of the left hand has sloughed off.

26th.—The gangrenous part of the ring finger has now sloughed off. The urine still contains a large quantity of albumen and blood.

June 2.—Patient complains a good deal of pain in his right ear, which is dark in colour. The fingers are about the same. The hip wound continues to discharge freely.

13th.—He is crying very much with pain in the middle and little fingers of his right hand. His right ear is of a reddish-blue colour. The urine is full of albumen, cloudy, and contains a quantity of blood. Specific gravity 1010.

20th.—The terminal phalanx of the little finger of his left hand fell off this morning; he still complains of great pain in his fingers.

21st.—The terminal phalanx of the thumb of the left hand has dropped off.

July 4.—A few broken-up blood corpuscles were seen to-day in the urine under the microscope. The terminal phalanx of the ring finger of his right hand has dropped off, and he has complained of much pain in his elbow.

August 12.—Patient still remains under care in the hospital. There is still a large open wound in the hip, but the gangrenous process has stopped. The boy has lost the terminal phalanges of all his fingers and of his thumbs, the remaining stumps being rounded and healthy-looking. The tip of the nose, the ears, and the toes, which threatened to be affected, have recovered themselves. The urine still continues to contain red colouring matter, being sometimes simply smoky, and again being dark red in colour.

Dr. Wilks, in making some remarks on this case, said he thought it probable that the condition of gangrene of the extremities and the presence in the urine of blood-colouring matter were associated together, and that they were both probably caused by the diseased condition of the blood brought about by the prolonged discharge from the hip

abscess. The treatment throughout was of a supporting character, and the extremities were wrapped in cotton-wool, while the hip wound was treated on ordinary surgical principles.

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Medical Times and Gazette.

SATURDAY, AUGUST 23, 1879.

DR. FERGUS ON STATE MEDICINE.

THE department of public, preventative, or State Medicine is increasing yearly in interest and importance, and the British Medical Association rather prides itself—and with some show of reason, according to the evidence of Dr. Grimshaw in the address delivered by him in opening the Section of Public Medicine at Cork—on the assistance it has rendered in preparing the way for some of the chief improvements already effected under this head, and in urgently pressing for others generally admitted to be of prime importance. It may not be without interest to remind our readers that this journal for years and years advocated this great subject when it was but coldly looked upon, and that in this way we probably did more for the public good than the British Medical Association has yet done. This year, one of the three addresses-in-chief was devoted to the general subject of Preventative or State Medicine, the orator being Dr. Andrew Fergus, of Glasgow. We print in another column a full abstract of his oration:

Dr. Fergus took a brief but very wide survey of his subject, for he glanced at both its past, present, and future. He was able to show, what many would seem to have entirely lost sight of, that State Medicine has not only really had a past, but also that, in certain ages and communities, it was "probably better understood and more thoroughly carried out than any other branch of the healing art." He showed, for example, that under the Mosaic dispensation there was provision for medical officers of health possessed of far greater powers as to the isolation of sick and infected persons, and other such preventive measures, than this so-called enlightened age has any experience of. Indeed, the rules laid down

in Leviticus for dealing with plague, leprosy, etc., are probably the best yet devised, and much better than any yet generally practised, for the isolation and stamping out of preventable disease, though the conditions and channels of its propagation have altered so much in modern times. Dr. Fergus was able also to refer to examples of special public precautions observed in his own country during the fourteenth and fifteenth centuries against the introduction and extension of infectious diseases. As late as 1585, measures of the strongest kind were in force, for in that year, as Dr. Fergus quotes from an old record, gibbets were erected at the entrances to the city of Aberdeen, "in case any infectit person arrive or repair by sea or land to this burgh, or in case any indweller of this burgh receive, house, or harbour, or give meat or drink to the infectit person or persons, the man to be hangit, and the woman to be drownit." The most thorough-going sanitarian of to-day would hardly be prepared to adopt such high-handed procedure.

Dr. Fergus has some difficulty in accounting for the fact that within more recent times all preventative measures had been allowed to lapse entirely. He suggests, in addition to other possible reasons, that the gradual growth of civil liberty rendered people impatient of such tyrannical interference with their domestic freedom as was involved in many of the regulations.

Coming to the present aspect of preventative medicine, Dr. Fergus presents a picture which is, in many respects, anything but reassuring or encouraging. After an analysis of the returns of deaths from the Registrar-General's reports, he finds, in the first place, what indeed had been observed before by actuaries, that very little change in the proportional death-rate in general has taken place during the whole forty years covered by the Registrar-General's statistics, and that therefore there does not yet appear to be any substantial evidence that human life has, in the bulk, been saved and prolonged as the result of the many expensive sanitary improvements that have been brought to bear on our population. And, in the second place, he finds, as might have been expected from the more general result, that in regard to many particular diseases, the mortality, proportional to the population, has diminished but slightly, and has even increased sensibly in some cases, as in the diarrhoeal group of diseases, where we should have hoped for the signs of most improvement. In several of the zymotics, however, notably in the case of small-pox and of typhus, the effects of preventive and sanitary precautions are strikingly evident.

Dr. Fergus presented these somewhat disappointing results in their bare simplicity, without any attempt at explanation or palliation. We cannot believe, however, but that there occurred to him, as to others, several important considerations that may help to explain, at least in part, the poor and partial results of our recent attempts at sanitary progress. And it may be questioned whether he did not injure, instead of advancing, the cause of sanitary science by thus publicly proclaiming the apparently negative character of its results, without even hinting at some of the explanatory considerations. In the first place, we must all die one time or other, and an excessive average per thousand only shows that some unusual causes of mortality have been at work. The true test is the prolongation of life and the absence of preventable disease. Again, we would ask whether it is quite proved that the figures of even so excellent an official as the Registrar-General are entirely free from those fallacies that are the proverbial accompaniments of most statistics. And even if all risk of this kind were excluded, it deserves mentioning that these figures show the actual mortality in the existing condition of things; they certainly do not show that the mortality would not have been considerably greater if the few efficient sanitary precautions

already in force had not been in operation. The great recent tendency of the population of our country, moreover, as compared with bygone days, to congregate in crowded towns, and the greater facilities now afforded for the production and propagation of disease by water-carried sewage, are amongst the best known considerations which would entitle sanitary science to much deserved credit, even if the proportional rate of mortality were merely prevented from showing a large increase. Moreover, sanitarians need have no scruples in confessing that at first some of their plans had been found, on trial, to be useless, or sometimes worse than useless. If the best methods suggested themselves at once, and to everyone, we should hardly expect that even a Government whose watchword is *Sanitas sanitatum* would be so slow to recognise the advisability of many measures that have been repeatedly pressed upon their attention as necessary for the better preservation of life and health in the community.

Dr. Fergus expressed his strong objection to the system of removing excremental matters by water-carriage, maintaining that all excreta should either be returned to the earth, or subjected to chemical action, so as to render them innocuous. He alluded to the many evils that arise from the water-carriage system, and in this connexion described certain experiments he had conducted, proving the ready transfusion through water of gases from sewers passing through traps and into houses.

On the more general aspects of State Medicine, Dr. Fergus advised the appointment of a special Minister of Health, and the general adoption of the registration of diseases, especially those of a contagious nature. He also thought that medical officers of health should devote the whole of their time to their office, so as to be free from the entanglements of private practice.

THE WATER QUESTION IN PARLIAMENT.

THE Commons have good reason to be congratulated on the tone of the discussion which was, on the day before prorogation, resumed by Mr. Fawcett, on the subject of the London water-supply. Mr. Fawcett was, for once, studiously moderate. He began by indicating the various sources of the London water-supply, and immediately thereafter he proceeded to show that, though the Thames was not faultless as a source, still, by due care in filtering and storing, its waters might be rendered both wholesome and palatable. In short, he, by statistics drawn from authoritative sources, showed that whilst one set of companies were supplying turbid and otherwise unwholesome water, another were supplying water drawn from the same Father Thames, at the same point or nearly so, which was nearly, if not altogether, unexceptionable. But he fell foul of the domestic arrangements for storing water, and no wonder! It would be difficult to invent anything worse than the stereotyped arrangement of cistern over water-closet—waste-pipe to drain. Not even the old water-butt—now almost a thing of the past, and for which Mr. Fawcett has such a profound hatred—could compare with the evils of the present system. The old water-butt was large, generally situate where direct contamination from closets was impossible, even though the whole surrounding air might be redolent of faecal odours. It contained a goodly quantity of water, and generally was exceedingly dirty at the bottom, but then the tap lay above that level. Nowadays we have improved upon all that,—we have a *cistern*. Heaven save the mark! A wretched contrivance of wood, sometimes lined with lead, sometimes not; in better houses made of slate; but in the poorer districts it is something to behold and shudder at. Mr. Fawcett would away

with these, and so would we if it were possible. Unfortunately that is not the case with our ordinary water-pressure and intermittent supply, and it is not easy to see one's way out of the dilemma. An enthusiast like Mr. Fawcett scarcely takes note of the difficulties in the way of a favourite scheme, and probably he has had no experience of the troubles which arise in a city like London from any endeavour at uniformity. Take this simple matter of constant water-supply, it would necessitate the re-laying of new pipes in almost every house where water is taken from pipes high up in the dwelling. Certain portions of the Strand, including most of the theatres, have a direct supply, we believe, from the New River Company, but there, in the basements and underground portions, taps of the screw pattern and extra strong pipes must exclusively be used. And what happens suppose a main bursts or some similar accident occurs? During the repairs the water has to be cut off from a whole district. No, we cannot get rid of the cisterns; the only thing we can do is to regulate them, to place under strict supervision those situate in districts most likely to become contaminated, but above all to see that they are filled with pure water. Gas companies are liable to be fined if they supply bad gas: why should water companies have a monopoly of selling foul water at an exorbitant price?

This brings us to another part of Mr. Fawcett's argument. The cost of water in London is intolerable, as now exacted by the various companies. And we have seen in what a high-handed manner some companies are prepared to carry out laws never intended to favour them. This has probably been the celebrated "last straw," and people have begun to take action when they find their water-rate nearly doubled, and the supply not one whit better either in quantity or quality. What wrong could equal the law which allows your supply of water to be cut off because your next-door neighbour has not paid his water-rate? It is plain that Parliament must interfere, if only to prevent the present possessors of water-company shares from rigging the market; and here Mr. Cross's remarks must be of infinite service. The economy which would result from the union of all the companies under one head would be immense in every way—in the superintendence, the purchase of stores, and not least in the collection of the rate, which would then be united with the others, instead of being kept separate as now. But we must have a body beyond suspicion at the head of the scheme, and we must have no fancy prices paid to anybody.

It would have been strange had the companies not found advocates; but the feelings of the whole House, as well as those of the metropolis next day, were relieved by Mr. Cross's speech. We are to have no revolutionary measure, no double supply, where the kitchen-maid may just as well use the "pure" tap as the "filthy" one, and where the best water is to be used to put out fires. We are only to have inquiry; but that, at least, under Mr. Cross, is sure to be thorough, and in the meantime we may remain quiet and be poisoned comfortably—if need be, with a lively sense of gratitude for favours to come.

THE WEEK.

TOPICS OF THE DAY.

THE Committee appointed to carry out the details of the National Water-Supply Exhibition have enlisted the services of the Lord Mayor towards the furtherance of the scheme, and last week his lordship attended at the Alexandra Palace for the purpose of formally inaugurating the Exhibition. It will be remembered that, as we before explained, the articles to be shown are grouped under fifteen different sections, and although none of these are, at present, in as complete a state as the Committee could have wished, they decided to secure the attendance of the Lord Mayor before

his departure from town, so that the movement might be launched at once, instead of experiencing any of the dangers of delay. Speaking at the lunch which took place upon the occasion, the Chairman, Mr. Edwin Chadwick, C.B., expressed his opinion that the work now undertaken was of the highest value, and he alluded to the recent discussion on the subject of metropolitan water-supply in the House of Commons, as an indication that improvements might at last really be looked for. Professor Seeley drew attention to the four points which appeared to him of the greatest importance in connexion with the subject: first, that filtration by companies needed special supervision; secondly, that all inquiries possible should lead to the solution of the question of the best supply for the least cost; thirdly, that a broad general view of the whole question, involving the wants of the less moneyed class, was important; and, fourthly, that all information, whether from men of science or practical men, should be accumulated in a readily accessible form. The Lord Mayor expressed his gratification at what had already been done by the Committee, and he cordially wished the Exhibition the great success that it undoubtedly deserved.

The Chancellor of the Diocese of London has recently given judgment in two important cases. In the first the churchwardens of the parish of St. George's, Hanover-square, had applied for a faculty to enable them to erect a parochial mortuary, with a post-mortem room attached, on the old burial-ground situate between Mount-street and South-street, Grosvenor-square. The application had been opposed, on public and private grounds; but the learned Chancellor explained at some length that he was of opinion that, with proper safeguards, such a mortuary would constitute no danger to the public health. He would give directions as to the excavations to be made, and for the removal of the bodies, and he should lay down the rule that before the removal to the mortuary of the body of a person who had died from infectious disease, disinfectants should be placed in the coffin, which should then be screwed down. The evidence of Dr. Meymott Tidy and of Dr. Corfield showed that with proper precautions there would be no danger, but, on the contrary, a great public benefit, in allowing these buildings to be constructed in this place; and it was stated that the faculty would further contain a proviso that the removals should not take place between half-past eight in the morning and half-past eight at night. In the event of there being any annoyance in the future, the parties opposing could make further application to the Court. The faculty would, accordingly, be granted. In the second case, the vicar and churchwardens of St. Matthew, Bethnal-green, had applied for a licence to erect a mortuary and rooms on the closed burial-ground of the parish. The case was before the Court some months back, and objection was then made to the scheme, and fresh plans were ordered. Dr. Tristram now decreed a faculty, and said that the works might be proceeded with at once. Both these parishes may be congratulated upon having thus secured an absolute necessity for the comfort and safety of their respective districts.

The following rather startling case is reported by the *Daily Telegraph*:—"Doctors run many risks all the world over. Their faces may be marked with small-pox caught from their patients; the typhus, which they essay to combat in others, may give up the client and seize the physician. But it is not often that they run the risk to which a medical man in Spolete, Italy, has recently succumbed. Called in to attend a child who was ill, he was informed by the father that, should he cure the infant, two thousand lire would be his reward, but that, should he fail, he would infallibly be

shot. He undertook the case, and the child shortly after died; whereupon the father, true to the compact, fetched his gun and at once put an end to the labours and life of the unhappy doctor. In Italy juries are generally lenient to a murderer, and the rule held good in this case, for the owner of the gun was adjudged to pay a fine of 25,000 lire, and suffer ten years' imprisonment only. Here the Spolete tragedy ends; but it would be well to inquire whether such a system as it discloses prevails in the district. If so, English doctors had better avoid it as a field for practice."

The Queen and Princess Beatrice, attended by their suite, last week paid a visit to the Royal Victoria Hospital at Netley. Her Majesty was conducted through the Hospital by Surgeons-General Massy, C.B., and Longmore, C.B., and visited the wards containing the men who had recently returned home from Natal, including wounded from Rorke's Drift, Ekowe, and Gingihlovo. The Queen spent upwards of half an hour in the wards, and before her departure personally decorated Private Hitch, 1st Battalion of the 24th Regiment, with the Victoria Cross, in the presence of the invalids who were drawn up in front of the Hospital. Private Hitch had saved the lives of several wounded men, who were in the hospital at Rorke's Drift when it was burnt by the Zulus, by bringing them into the fort at the risk of his own life.

An outbreak of diphtheria of a virulent character is reported to have occurred at Lower Norwood, caused, it is alleged, by the existence of an open sewer, in the neighbourhood of Lancaster-road, which empties itself into the main drain. Within a very short period there have been eight cases of diphtheria in a radius of twenty yards from the sewer, two of which have proved fatal. The inhabitants have decided to lay the matter before the Local Government Board, with the view of obtaining their assistance.

It is announced that the Sanitary Congress and Exhibition of the Sanitary Institute of Great Britain will this year be held at Croydon, from October 21 to November 8, inclusive. Dr. Richardson, F.R.S., has accepted the office of President of the Congress, and a large and influential committee (Mr. John Corry being the chairman) has been formed. Among the Vice-Presidents are the Archbishop of Canterbury, Earl Percy, M.P., the Earl of Egmont, the Bishop of Rochester, etc. The Sanitary Congress is divided into three sections, as follows:—Section 1, Sanitary Science and Preventive Medicine; President, Mr. Alfred Carpenter, M.D. Section 2, Engineering and Sanitary Construction; President, Captain Douglas Galton, F.R.S. Section 3, Meteorology and Geology; President, Mr. G. J. Symons, F.R.S. Arrangements have also been made for one or more lectures, one of which will be delivered by Professor Corfield.

The death is announced of Dr. William Henry Young, F.R.C.S., at the patriarchal age of ninety-three. Dr. Young was one of the few remaining links which bind us to the memories of a glorious past. He entered the Army in 1809 as Assistant-Surgeon of the 28th Regiment of Foot, and saw considerable service in the Peninsular and Waterloo campaigns. He was one of the oldest Fellows of the Royal College of Surgeons of England, and almost the last survivor of those who served on the medical staff at Waterloo.

We are not at all sorry to see that a correspondence lately commenced in the *Times* on the subject of hospitals for the middle classes has elicited a public explanation from Sir Rutherford Alcock on the supposed inactivity of the Committee of the Home Hospitals Association. It would appear that the reason why the house taken by the Association at the corner of Manchester-square has not yet been opened for the reception of patients is on account of the opposition raised by Lord Portman, the ground landlord, at the instiga-

tion of the neighbours. A correspondence between the Association and his lordship was followed by the issue of a writ in the Rolls Court, seeking to restrain the Association from making use of Berkeley House, and, in spite of all the efforts of counsel to bring the case to judgment, it has now been ordered to stand over until after the long vacation. Relying, however, on the decision of the Lord Chief Justice in granting a rule for a new trial in the celebrated Hampstead Hospital case, the Committee anticipate a decision in their favour, and, should such be the case, their difficulties will be comparatively at an end. The Lord Chief Justice ruled that, to create a nuisance from the presence of a hospital, danger to health from the alleged nuisance must be shown, and that it is not sufficient to prove that there is an interference with the comfort of owners of adjoining property, even if it should have caused a diminution in value. As all infectious cases are excluded from admission by the rules adopted by the Association, the decision of the Lord Chief Justice, so far, is decidedly in their favour. As a great deal of public interest attaches to the successful development of the "home hospitals" scheme, we have been rather surprised that some public statement has not been before forthcoming to account for the seeming delay in commencing operations; and, we may add, we have been still more surprised at the choice of situation made by the Association. Very suitable houses, with grounds, could surely have been obtained within easy reach, in some of the suburbs; and the selection of such a site as Manchester-square was certain to excite determined opposition.

Owing to the pressure of public opinion, the Ipswich Board of Guardians recently rescinded, without discussion, a resolution passed about a month ago, directing that the unclaimed bodies of paupers dying in the workhouse there should be used for anatomical purposes.

A disgusting case of milk adulteration was heard at Newport, Cardiff, last week. It was proved that a milkseller, named Merchant, was in the habit of largely diluting his milk with water from a brook into which a water-closet emptied itself, and near a bank which was a manure-heap. The man was fined £20.

DR. NORMAN CHEVERS ON THE INDIAN MEDICAL SERVICE.

ON the conclusion of Colonel Johnson's address to the Netley students, at the request of Surgeon-General Massy, C.B., Dr. Norman Chevers addressed the Indian students, congratulating them upon the career which they had chosen, but warning them not to be too ardent in their expectations of immediate success. They were entering a service in which the general level of professional qualification is remarkably high, consequently reputations for singular merit are won slowly and with difficulty. To rise in India, a man must possess high qualifications, not only as a surgeon, but also as an officer and a member of society. He went down the roll of Netley prizemen which is affixed to the wall of the theatre—Kenneth McLeod, Cameron, Macrae, Lethbridge (formerly one of his own pupils), David D. Cunningham, Lewis, had all obtained reputations in India, where, health being preserved, as it generally is, merit will always eventually come to the front. They were about to enter a society of high intellectual culture, in which the character of each individual is perfectly well known both to Europeans and natives. As there must be no blood on the judge's ermine, there must be no stain upon the character of the Indian physician, which lies open, as if under a microscope, to all his world. He spoke of the great social influence which the cultivated physician exercises in India; and referring, not by name, to one of their own Professors now present, declared that, upon the death of his colonel,

immediately after landing in Calcutta at the outbreak of the Indian Mutiny, the Surgeon, as the senior officer in the corps, and a man of noble character, became, morally and intellectually, the commander of one of the finest regiments in the British Service. He wished that he could accompany them to the scene of their labours and his own, to a course of life which, although fraught with difficulty, is singularly free from the petty cares and sordid jealousies which too often embarrass an English career.

REPORT ON THE HOMERTON SMALL-POX AND FEVER HOSPITALS.

THE Committee of Management of the Metropolitan Fever and Small-pox Hospitals at Homerton have recently published their report for the year 1878. Dr. Alexander Collie, the Medical Superintendent of the Fever Hospital, shows that during the year under notice 1048 cases have been under treatment; of these 733 have been discharged recovered, and 140 have died, giving a mortality of 16.4 per cent. The Small-pox Hospital was closed for internal repairs and cleansing in July, and up to that date, Dr. Gayton, the superintendent, states, 964 cases were received, and 136 remained in hospital from the preceding year; of this number 925 were discharged, and 175 died, giving a gross mortality of 16.95 per cent. The report adds that the statistics of the small-pox epidemic of 1876 disclose the important fact that while the deaths in the district hospitals were about equal to those that occurred in private houses, the deaths in the hospitals during the epidemic of 1871-72 were less than half the number in private residences. This shows that the hospitals are becoming better known, and the benefits accruing from their use more clearly recognised by the poorer classes, who seem less reluctant than formerly to take advantage of them. But as during 1877-78 upwards of 11,000 small-pox patients were received by the managers, and as the deaths in private houses amounted to nearly as many as those in the hospitals, it is fair to presume that quite as large a number of cases were treated in the former as in the latter. As each of the "private" cases was a centre of infection, it is probable they were the chief means by which the epidemic was kept alive; it will be obvious, therefore, that it is of the greatest importance that measures should be taken to prevent, in future epidemics, such a large number of people being treated in a manner so prejudicial to the public health. Having regard to this the Committee observe that they will be glad to see some steps taken for affording the non-pauper classes the means of isolating their cases in public institutions, care being of course taken that their doing so is unattended by any social or legal disqualifications. In previous yearly reports the Committee recommended other measures, such as revaccination, house-to-house visitation, the registration of cases suffering from infectious and contagious diseases, and the removal to hospital of cases which cannot be effectively isolated at their own homes, the adoption of which, together with the provision of accommodation for paying cases, would, the Committee believe, have the effect of considerably diminishing the great mortality and expense attending outbreaks of small-pox and fevers.

THE ANNUAL SANITARY REPORT ON PORTSMOUTH.

MR. GEORGE TURNER, Medical Officer of Health to the Urban Sanitary Authority of the Borough of Portsmouth, is one of those gentlemen who carries on his duties as a labour of love, and not on the exact lines laid down by the Public Health Act; as a consequence, his annual reports are perfect volumes in comprehensiveness, and deal exhaustively with all the details appertaining to his duties. The report for the past year, 1878, is no exception to this rule, and we regret

that the limited space at our command prevents our giving a fuller notice of its contents. At the outset Mr. Turner notes that the number of illegitimate births registered during the year (251) was greater than he ever remembered to have found recorded, but whether this result was due to more careful registration, or to other causes, he had not had the time to determine. The result of the mortality of the past year was 19.02 per 1000 of the estimated population; it was higher than that of the preceding year, but slightly below the average for the last six years. This increased mortality has, Mr. Turner thinks, been due rather to a rise in the death-rate from all causes than from the presence of any large amount of zymotic disease. In speaking of the undue prevalence of typhoid fever in the borough of Portsmouth, Mr. Turner shows that the death-rate of the district has decreased when comparison is made with former years, but he admits that it has not kept pace with the improvement seen in other localities; and the reason why the borough has been so much subject to this fever he attributes to the flatness of the sewers, the insufficient ventilation both of sewers and house-drains, and the defective construction of houses. An interesting description is given of the efforts made to discover the cause of an outbreak of typhoid fever which occurred in Portsmouth during the past year, and which was eventually traced to a tainted milk-supply. A large portion of the report is also taken up with the results of an inquiry into the excessive mortality from infantile diarrhoea, and, from investigations which he has made, Mr. Turner is led to attribute the disease to the introduction of matters undergoing fermentation or putrefactive changes into the susceptible intestines of young children, together with a continued high temperature. Amongst the improvements which have taken place in the borough during 1878, the erection of a commodious mortuary has to be recorded; but the Infectious Diseases Hospital, which has proved of great service, would have been even more useful had it been larger, and Mr. Turner calls the attention of the authorities to this most important subject.

THE DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.

At the recent half-yearly meeting of the Devonshire Hospital and Buxton Bath Charity, held at the Hospital under the presidency of Dr. Robertson, Chairman of the Board of Trustees and Committee of Management, it was announced that the long-continued negotiations with the Governors of the Cotton Districts Convalescent Fund for the extension of the Hospital by means of a grant of £24,000, under certain conditions, appear to have been at length brought to a satisfactory conclusion, under the sanction of the Charity Commissioners. Notwithstanding a single-minded regard on the part of all concerned for the interests of the sick poor, and for the extension of the Hospital under the best possible conditions and regulations, many differences of opinion have had to be considered, and have occasioned much delay. The conditions have, however, at length been agreed upon, and the agreement is in course of signature, so it is hoped that the great work of the extension may be commenced forthwith. By the additions proposed the powers of the Hospital will be increased from 150 to 300 beds, and the great advantages will be secured of an entire re-arrangement of its interior, the removal of two inner walls which obstruct light and ventilation, and the removal of all the remainders of what was originally a great range of stables. In order to secure this considerable grant of money for the extension of the Hospital, £5000 has had to be spent to acquire possession of the required ground, and urgent appeals are made to the public for subscriptions to complete this sum, and to place the Committee in a position to carry out to the fullest extent the increased usefulness of the charity.

THE ROYAL EDINBURGH ASYLUM FOR THE INSANE.

THE history of the Royal Edinburgh Asylum for the Insane, as gathered from the annual report of the Physician Superintendent, Dr. T. S. Clouston, for the year 1878, is decidedly satisfactory. This Asylum receives a large number of both private and pauper patients, and during the year under notice afforded accommodation for no less than 1098 persons, the largest number ever admitted. The Committee have recently purchased an estate which joined their institution, with a large mansion on it called Craig House, which will enable them to offer increased advantages to those paying patients whose friends are anxious to secure for them a home-like residence, combined with skilful treatment. The number of admissions during the past year has been the largest on record, the chief increase being in private patients, of whom 103 were admitted, against 84 in the preceding year. There is the usual wretched tale, Dr. Clouston says, of 51 patients (14 per cent.), where excess in drinking was assigned as the direct cause of the malady; but he was unable to discover that the commercial distress and hard times have influenced the number or the kind of cases in any respect, except possibly that the cases labouring under depression of mind were never so large in absolute number (115) or in proportion (32 per cent. of the whole). One most painful case—that of a person driven into melancholia by losses indirectly through the failure of the City of Glasgow Bank—was by far the most suicidal case under treatment, requiring vigilant watching night and day to prevent self-destruction being accomplished. The death-rate for the year was 0·2 per cent. less than that of the Royal and district asylums for Scotland for the past ten years, and 1·3 less than that of the private asylums; and 22 of the 63 deaths which occurred were those of patients over sixty years of age, 9 of these being over seventy. Of the 242 cases discharged during 1878, 153 were recovered, and 65 relieved of the worst symptoms of their malady, showing a recovery-rate of 41 per cent. The average period of residence of those who recovered was eight months; one-half of them recovered within three months, but in six cases restoration took place after two years' residence.

PROSECUTIONS BY THE PHARMACEUTICAL SOCIETY OF IRELAND.

ON Saturday, August 16, in the Northern Divisional Police-court, Dublin, before Mr. J. W. O'Donnell, Messrs. Benter and Hanly, trading as Benter, Hanly, and Co., Sackville-street, Dublin, were summoned by the Pharmaceutical Society of Ireland for having, contrary to the provisions of the Pharmacy Act of 1875, on August 10, they not being registered as members of the Society, or as chemists and druggists, compounded and sold certain prescriptions, a lotion and a box of pills, contrary to the provisions of the 30th Section of the Act. Mr. O'Donnell said he would in this case impose a nominal penalty of 10s., but intimated that he would in future inflict severe penalties where such an offence was proved. The Society had a second summons for a similar offence committed, as alleged, by Mr. Brownrigg, 95, Talbot-street, Dublin. In this case a prescription was sent out to be made up at a duly qualified apothecary's establishment, and the label on the bottle was afterwards changed, Mr. Brownrigg's name being substituted for that of the apothecary in question. His Worship fined the defendant £5 and £3 10s. costs. Defendant before leaving court claimed that he was exempt under the 31st Section of the Pharmacy Act (Ireland), 1875.

REPORT ON AN OUTBREAK OF DIPHTHERIA AT BLEADON.

THE fact that fifteen deaths from diphtheria were reported to have occurred in the Burnham sub-district of the Axbridge

Union during the fourth quarter of 1878, induced the Local Government Board to send down Mr. W. H. Power to institute an inquiry into this outbreak. The deaths occurred in the parish of Bleadon, and all except one were registered as resulting from malignant sore throat; but on his arrival in the district Mr. Power became convinced that the disease had been genuine diphtheria: not only was the clinical history of fatal cases precisely that of diphtheria, but many of the persons convalescent from this throat-illness exhibited various neuroses characteristic of the specific disease. As is not uncommon with epidemic diphtheria, the present outbreak comprised cases of all degrees of severity. The inquiry at Bleadon extended to twenty-four invaded households, including sixty-eight cases. All of these cases (except two in a family at the hamlet of Shiplate) occurred between early October, 1878, and mid-March of the present year in one village (Bleadon), which has in 102 houses a population of 411 persons. The dwellings are built of stone, with thatched or tiled roofs; and most of the cottages have gardens, often of considerable size. The water-supply was found to be almost wholly from wells, the principal of these (the parish well) being a draw-well, some fifteen feet deep, situated about thirty yards from the churchyard below it, and directly in its line of natural drainage to the marsh. Except the ordinary road-drains, there may be said to be no drainage, and the excrement removal is almost wholly by pit-prives, the contents of which are applied to the gardens. Careful inquiry elicited the fact that the disease was not confined to any particular part of the village; while of the sixty-eight persons attacked none were under three years of age, forty-three (or 63 per cent.) were between three and fifteen years, and twenty-five (or 36 per cent.) were over fifteen years. The deaths were fourteen under fifteen years, and three above that age. In endeavouring to ascertain the possible cause of the outbreak, Mr. Power is of opinion that neither of the two public schools of the district is in any way responsible; nor can the parish well, previously described, be regarded as the source, since in November last the county analyst pronounced a sample taken from it to be free from the contamination of sewage, and of households in the village resorting to it for water, nine (or 24 per cent.) were invaded by the disease, whilst of households obtaining water from other and very various sources, fourteen (or 23 per cent.) were invaded. The diseases of animals can scarcely have occasioned it, although it is worthy of remark that a peculiar lamb-disease existed in the district coincident with the outbreak. Mr. Power, as may be imagined, instituted a minute inquiry into the milk-supply of the district, but he found in the lapse of time since the occurrence of the outbreak an insuperable obstacle to obtaining such exact knowledge of a variety of circumstances as would have been necessary for the due consideration of the subject, and he was compelled to abandon his investigations in that direction. In conclusion, Mr. Power is compelled to admit his inability to assign a cause for the extensive and intense prevalence of diphtheria in this village during the period referred to; but he thinks that it would be well if the attention of the sanitary authorities were directed to the sanitary shortcomings of the place, although there was an apparent absence of relation between insanitary circumstances and the outbreak. A proper water-supply is essential in some parts of the village, and the parish well and many others should be carefully guarded from pollution; further, a better and safer method of dealing with excrement should be introduced into the locality.

MEASUREMENT OF THE TEMPERATURE OF THE STOMACH.

DR. WINTERNITZ, of Vienna, describes, in the *Centralblatt Med. Wiss.* (No. 24, 1879), a simple method for ascertaining the temperature of the human stomach. He uses thermo-

meters six centimetres (2·4 inches) long, slightly bent in their lower third so as to pass more readily over the base of the tongue and the entrance to the larynx. The scale reaches from 35° to 42° Cent., and each degree is divided into tenths. The thermometer has a small glass ring blown on its upper end, and through this a strong thread is passed, carried up through the sound used for its introduction into the stomach, and secured. The instrument is also further fixed by its upper end being cemented into the hollow of the sound with a strong solution of guttapercha. Preliminary experiments showed that no error could arise from the temperature of the parts which the thermometer had to pass through before reaching the stomach, as this passage lasts, at the outside, ten seconds, and the mercury does not begin to rise for about fifteen or twenty seconds. The maximum temperature is reached in four or five minutes. If the act of introduction is delayed by the irritability of the larynx or œsophagus, it is only necessary to cool the thermometer in ice, and thus the mercury will be prevented rising for nearly two minutes. Dr. Winternitz has made use of this method to examine the effect of cold irrigation of the rectum on the temperature of the stomach. Thus injected, 1000 cubic centimetres of water at 11° Cent. reduced it 0·9° Cent., or nearly one degree, in thirty minutes. The most interesting fact, however, brought out by the experiment is that the temperature of the stomach was reduced more than that of the axilla, the former having fallen from 37·15° to 36·25° Cent., and the latter from 37·05° to 36·70° during the irrigation. Dr. Winternitz claims this fact of the greater cooling of the internal organs than of the skin by cold applied to the rectum as a new discovery. He suggests its importance in controlling hyperæmia and inflammation of the stomach, liver, and other abdominal organs.

THE VOLUMETRIC ESTIMATION OF SUGAR.

SOME time ago we directed the attention of our readers to the valuable investigations conducted by Dr. Pavy as to a means of detecting sugar after the manner of the well-known Nessler test for ammonia. He now writes to us:—"Further observation has shown, as represented in a supplementary communication read at the Royal Society, June 19, the advisability of using a larger quantity of fixed alkali than is contained in Fehling's solution. If Fehling's solution continue to be used for the ammoniated liquid, the amount of soda in it should be doubled, but the following formula is recommended instead:—Sulphate of copper, 34·65 grammes; potassic tartrate of soda (Rochelle salt), 170 grammes; potash, 170 grammes; water to 1 litre. For the ammoniated liquid 120 cubic centimetres of this solution are mixed with 300 cubic centimetres of strong solution of ammonia (specific gravity 0·880), and water added to one litre; 20 cubic centimetres of the liquid thus prepared stand equivalent to 0·010 gramme of glucose."

THE INHALATION OF EUCALYPTUS OIL IN DIPHTHERIA OF THE PHARYNX.

THE number of remedies, local and internal, which have been proposed in diphtheria is so large, and their efficacy in the hour of trial generally so trifling, that an apology is almost needed for bringing forward a new one. In the present instance our apology is the eminence of its supporter—Professor Mosler, of Greifswald (*Berl. Klin. Wochenschrift*, No. 21, 1879), who strongly advocates the use of protracted inhalations of the oil distilled from the leaves of *Eucalyptus amygdalina* and *globulus* to arrest the local mischief in diphtheria of the pharynx. He asserts that all the cases in this category which he has so treated have recovered, though admitting that there are "fulminating" cases of diphtheria in certain epidemics which resist all

treatment. The oil is used diluted with rectified spirit, generally in equal parts; ten to sixty drops being used at each inhalation. The strongest solution which had been used at the time Professor Mosler wrote was the following:—℞. *Olei eucalypti* 5·0, *spiritus vini rect.* 25·0, *aq. dest.* 170·0 grammes S.—for ten inhalations. The mixture must be well shaken before measuring. No bad effects whatever have followed the use of so strong a solution in the cases where it has been tried; but as a precautionary measure Mosler recommends it to be alternated with inhalations of a weaker one where the inhalations have to be repeated at very frequent intervals, such as every hour. *Eucalyptus* oil does not produce headache like carbolic acid and turpentine, and its odour is very agreeable. The oil distilled from the leaves has the disadvantage of being very expensive—much more so indeed than the ordinary commercial oil obtained from the wood. The wholesale price is about 60s. a kilogramme. Professor Mosler, however, considers the *oleum e foliis* the best to use for clinical purposes.

MEDICAL PARLIAMENTARY AFFAIRS.

Water-Supply.—In the House of Commons, on Wednesday, August 13, Mr. Fawcett called attention to the water-supply of London, and moved—"That, as the Metropolitan Board of Works had failed to pass any measure dealing with water-supply, this House is of opinion that the subject ought to be dealt with by the Government without further delay." Mr. Fawcett carefully explained the existing arrangements for obtaining and distributing the water-supplies of the metropolis. He complained that though five water companies derive their supply from the Thames, the expense of management is indirectly a great tax upon the ratepayers, because these companies, instead of working in harmony, having a joint staff of officials and a uniform system of administration, are independent units working for the same object, but with opposed interests. He showed, by reference to Dr. Frankland's reports and other evidence, that the supply is objectionable in quality, that the appliances for distribution and storage are defective, and that the expense, owing to excessive waste and improper system of rating, is more costly than in any other large town. He expressed entire concurrence in the opinion recorded by the Select Committee that had inquired into the subject, viz., that the companies should be superseded, and their property consolidated and placed under the control of a central authority, for the purpose of obtaining a constant supply and high pressure, and to improve the means of adequately extinguishing fires in the metropolis. He pointed out that the companies have not a legal monopoly for the supply of water, so that, if their demands should be impracticable, they might be passed over and the supply obtained in another way. Mr. Sclater-Booth admitted that there were many points alluded to which required to be remedied; but he declined to give any explicit statement which might be considered to represent the views of the Government. Mr. Cross, later on in the debate, agreed to the necessity of improving the mode of supply, the quality of the water, and the cost of production. He promised that the subject should be fully inquired into before next session, to ascertain whether the supply could be improved without a material increase in the cost, and whether the companies should be required to surrender their powers to a central authority to be appointed by the Government.

MAGNESIAN INTESTINAL CALCULI.—Dr. Blondeau relates the case of a patient who, having been in the habit of taking four teaspoonfuls of calcined magnesia daily, passed with the greatest difficulty numerous intestinal concretions, which were very hard, and consisted almost wholly of magnesia. Dr. H. Guéneau de Mussy had a lady under his care in whom, consequent on the abuse of magnesia, a calculus was formed, and caused complete intestinal obstruction, and had to be removed by means of a mallet and chisel. He also knew of a case in which death was caused by a similar calculus. It is evident, therefore, that this remedy, which is usually regarded as quite inoffensive, may give rise to grave disorder when used in excess.—*Jour. de Thérap.*, July 24.

ADDRESS TO CANDIDATES AT NETLEY.

By COLONEL ALLEN BAYARD JOHNSON,
Military Secretary to the India Office.

ON Monday, August 4, on the conclusion of the thirty-eighth session of the Army Medical School, Colonel Johnson delivered the prizes to the successful candidates, and gave the following address:—

I congratulate you, Surgeon-General Massy and Surgeon-General Longmore, and the officers so worthily associated with you in the responsible duties you fulfil, on the report we have just heard read. This is not the first nor the second time that similar words of congratulation have been addressed to you, for from the commencement till now your labours have met with unflinching and gratifying success, and I risk nothing in prophesying that, as year succeeds year, a similar tale will have to be told by my successors in this place; for, to such institutions as this, time does not bring decay, but strength and ever-renewed vigour.

Gentlemen, it is not a mere phrase of empty compliment, but the expression of sincere conviction, when I say that India owes much to you; for it is due to you in no slight measure that the gentlemen who leave Netley, session after session, to join the Indian Medical Department add so much to the prestige of that distinguished service, and are so very appreciable a gain to that intellectual life with which it is England's duty, as I am sure it is her aim, to inform the vast, though still inert, masses of our Asiatic fellow-subjects.

Gentlemen, I regret for your sakes that you are not to-day to be addressed by one who can speak with the weight and authority of the distinguished officer who occupied this place last year, but I am glad for my own sake, and grateful for the opportunity afforded me of speaking on one or two points which I have greatly at heart, and of bidding you God speed to the field in which you have elected to labour. Of what that field is, what its opportunities, what its scope, you may have already formed some conception, but your conception will have fallen short of the reality. Its opportunities are so various, its scope so vast, that its immensity almost staggers one. Yet, believe me, it is not a field in which it is difficult to labour, for it is one which yields a ready and abundant harvest, and it possesses an almost inexpressible charm, a charm which is at once a spur and a reward, a charm which is hardly to be found in the more groovy, cut-and-dried life at home, in that you see the actual growth and progress of your work, and year by year discern the very appreciable outcome of your labours.

With regard to those labours, I could not, even if I would, be guilty of the impertinence of saying anything in respect to their professional aspect. What we have heard to-day is ample proof that you have been in wise hands, and had the wisdom to profit thereby. Even were I so inclined, I am mercifully protected by an ignorance so complete as to convince even myself of the folly of that—as Coleridge calls it—ultracrepidaciousness from which the angels proverbially shrink; for, if it be true that at forty every man is a fool or a physician, I fear I must admit the soft impeachment that I am not a physician.

Neither do I wish to dilate on the material prospects the service holds out to you. On a former occasion my old friend, and now, I am glad to say, my valued colleague, Sir Joseph Fayrer, told you what are the prizes of the Indian service, and what fair prospects it offers to zealous and earnest workers; but, situated as I am, I would prefer not to enter into details, for details are terribly compromising.

I remember, during the campaign in Oude in 1857-58, the present Governor of the Woolwich Academy—whose duties in the field were not very clearly defined—asked the chief of the staff, the late Lord Sandhurst, for some definite instructions for his guidance—instructions which Sir William Mansfield found it neither convenient to give nor to refuse. Sir William, taking thought, very impressively replied, "Your instructions are that you shall on all occasions take a comprehensive view of your administrative responsibilities,"—a reply which I have always considered a masterpiece of the art of how not to say it. Profiting by this example, I will

confine myself to generalities, merely saying, though I believe with perfect truth, that no medical service in the world offers better prospects of professional advancement and even pecuniary success. But I do wish to say a few words on some of your social duties in that new country. Of course I do not speak of your social duties in connexion with the society of our countrymen. You, gentlemen, are at least as able to instruct me on such points as I to instruct you.

But beside and around the few thousands of our fellow-countrymen live the many millions of our fellow-subjects. It is of these I would say a few, not altogether, I hope, idle words.

I will not discuss the vexed question of whose the fault is, if indeed—and it is open to question—fault there be, but the fact cannot, I fear, be gainsaid, that between us and them there is a great gulf fixed—not, I am persuaded, an impassable gulf, for it may be, it can be, and I am convinced it will be bridged over, if not altogether filled up. But at present it still yawns between us.

In addressing myself especially to you, gentlemen, on this subject, I am influenced by the strong impression that the opportunity of effecting this work is placed more unreservedly in your hands than in those of any other members of the service to which we have the honour to belong.

The magistrate is obliged to some extent to hold aloof from any attempt to gain the intimacy of the native gentlemen living within his jurisdiction. It is unfortunate that this should be so, but the reason is not far to seek. We see a survival of it even at home, in the custom still in force which obliges the judge of assize to take up his abode in a stuffy lodging in the assize town, instead of resorting to the better ventilated comforts of a modern hotel. The regimental officer has comparatively few opportunities; while the engineer, having to settle through whose fields a road shall go, and to whose fields a canal shall not come, is, though in a less degree, debarred for much the same reason as the magistrate.

But with you, gentlemen, it is exactly the reverse. The natives, rich or poor, have nothing to apprehend at your hands, while what they seek of you it will be your duty, no less, I am sure, than your pleasure, to afford them. Like "the Pickwick, the Owl, and the Waverley pen, you come as a boon and a blessing to men," or, to speak in the more serious tone the subject demands, you come not as the ministers of its power, but as the embodiment of the goodwill of the State, for you enter the villages of the poor and the homes of the rich with healing on your wings. Therefore it is, I say, you have opportunities of bridging the gulf which others have not, and what I would ask you to do is to use those opportunities.

Now, far be it from me to suggest the practice of that goody-goody, mawkish, fussy, interfering patronage, which usurps and abuses the great name of philanthropy, and which is even more offensive to its subject than disdain, but that you shall treat them with that genial, good-humoured friendliness which underlies the British surface.

It was this characteristic—which he possessed to a very marked extent—that made Lord Mayo one of our most popular and personally influential governors. Without sacrificing one jot of dignity he made real personal friends of the chiefs. And this is the line I would have you take, not with the native gentlemen only, but with the middle classes and the villagers, whenever the chance is afforded you. To do so will add much to the interest of your lives, for you will find in their lives a study full of novelty and fruitful of results, throwing strange and unexpected light on many social problems of our time. In the North especially you will find manly, simple natures which respond readily to friendly advances; but put aside, as you would any other falsity, the cant which fools still repeat, that the natives of India have no gratitude. You might as well say they have no stomachs, or that if you tickle them they will not laugh, or if you prick them they will not bleed! But never in your intercourse with them forget that you represent the Ruling Race, and by your bearing, your

"Self-reverence, self-knowledge, self-control,"

justify your position. Ever show the best side of the British character—its manliness, its good faith, its integrity,—for it may be that some of those you meet will have no other opportunity than from you of judging of our right to be there.

Though I am aware that a considerable number of you have chosen the Navy as your profession, I have confined my remarks to India, and for this reason: that more than thirty years spent in that country have given me some insight into life in India, whereas I know next to nothing of life at sea; and this, I submit, is a very sufficient reason, for if

"It's a pity when charming women
Talk of things that they don't understand,"

it would be simply intolerable for a by no means charming elderly gentleman to attempt to do so.

I must say, however, that I have always held it to be a subject for very legitimate pride to belong to a service which is admitted on all hands to be unequalled. Of no army can this be positively said. They and we may think the German army the first, but it is quite conceivable that the French or the Russians might think otherwise; but with the British Navy no comparison is possible. It's "Eclipse" first, the field nowhere. Of such a service you may well be proud to be members.

But I have one hint to give, which I think applies to the Navy no less than to India. Keep a hobby, and give it daily exercise. It does not, for the object I have in view, greatly signify what that hobby is—art, music, literature, sport, or an ology. Of course, it will be better for yourselves, and better for us all, if you pursue some subject which will add to the knowledge of the world, whether it be some such invaluable contribution to science as so many distinguished members of your service have given—a history of the snakes of India, deep-sea dredgings, or an exhaustive code of medical jurisprudence. But as all cannot attain to such excellence, at least take up some persistent occupation or amusement, and follow it up: it will help to fill up those deadly monotonous hours of which, without some such resource, you are fated to experience so many in both the lines you have chosen.

Gentlemen, I will not detain you longer, but will conclude as I began, by expressing my gratification at having been allowed to address you on this occasion, and by wishing you most sincerely health, happiness, and success in the careers you are now entering on.

AN OLD CONTROVERSY.

As the subject of mortality in childbirth has recently been fully discussed, the following quotations may interest our readers. They are from a "Treatise on the Management of Lying-in Women," by Charles White, F.R.S., published in 1773. He writes, "to prevent a numerous and fatal train of evils incident to the most amiable part of the creation," he has "no singularities in theory to propose nor any specific remedy to extol," but simply insists on fresh air and cleanliness. He points out, as others are pointing out to-day, the excessive mortality in some lying-in hospitals; and endeavours to ascertain what is the death-rate outside.

Is it not time that this lengthened controversy should be brought to a close? The natural place for a woman to be confined in is her own home, and it therefore rests with the supporters of the lying-hospitals to show that the mortality in them is less (or at all events not greater) than outside, and that they are not liable to epidemics. This they do not even endeavour to prove, but merely content themselves with criticising the figures that are brought against them. A hundred years ago it was known well enough that the way to ward off evil lay in cleanliness, fresh air, and no crowding; and these advantages have doubtless, as far as human frailty will allow, been enjoyed, and with what results?

White on Pregnant Women, 1773.

"The fatality that attends the patients in some of the lying-in hospitals greatly exceeds that of any private practice—at least, of any which I have been acquainted with. In one public lying-in hospital since the first opening in April, 1767, 622 women have been delivered, of whom 16 have died in the house, which is more than 1 in 39."

"In the printed accounts of another lying-in hospital from its first institution in November, 1749, to December 31, 1770, there were 9108 delivered, of whom 196 died in the hospital after delivery, which is nearest 1 in 46½; out of this

number 890 were delivered in the year 1770, and 35 died, which is more than the proportion of 1 in 25½."

"But this general fatality does not seem to have attended every lying-in hospital in London, for in one instituted about six years ago 790 women have been delivered, and only 6 have died, viz., 2 of the puerperal fever, 1 in the year 1770, and the other in 1771; 3 of floodings, and 1 of consumption, which is no more than 1 in 131½."

"It is worthy of observation of two hospitals, both situated at nearly equal distances from the centre of the same city (viz., London), both instituted about the same period of time, and both under the direction of men of considerable eminence in the profession, and nearly the same number of women having been delivered in both houses, that in one of them they should lose in the proportion of 1 in 39, and in the other only 1 in 131½."

Dr. White ascertains that the difference in the two hospitals lies chiefly in the small numbers (scarcely ever more than four, and commonly only two) of patients in each room.

With respect to the mortality outside the hospitals, he calculates that in his own town of Manchester the mortality was as follows:—

For the years	1754 to 1759	. . .	1 death in	104
"	"	1759 " 1765	. . .	1 " 125
"	"	1765 " 1771	. . .	1 " 128½
For the year	1770	. . . . .	1	" 131
"	"	1771	. . . . .	1 " 194

HUNTER AND JENNER.

At the June meeting of the Council of the Royal College of Surgeons, Sir James Paget, Bart., offered for their acceptance an exceedingly interesting collection of letters and manuscripts in the handwriting of these distinguished men to and from each other. Those of Hunter show the deep interest he took in everything relating to natural history, and the wide range of his inquiries. In one letter, a very characteristic one, he asks Jenner for observations on the cuckoo and upon the breeding of toads, and to pick up anything that was curious and prepare it for him, promising him in return a picture, as he was going to buy some at Dr. Fordyce's sale. Then he starts off about the treatment of a patient. Another letter is full of experiments on hedgehogs and their breeding, thanking Jenner for a hamper of them; one of these, a female with young, was dead when the hamper arrived, and of this he at once made a preparation. In another he states that "there is the skin of a Toad in Barkley Castle that is of prodigious size; let me know its dimensions, and what bones are still in it, and if it can be stole (*sic*) by some invisible being." He adds that he found the two toads he buried, more than twelve months before, well and lively when he opened their grave. In another he sympathises with him in a love disappointment, saying, "Never mind her—let her go, and I will employ you with Hedgehogs, Salmon spawn," etc., promising him in return some of Hewson's pictures "if they go cheap." As showing his gentle nature, he begs Jenner to "see if you can catch the number of pulsations and the frequency of breathing in the Bat, *without torture*."

Occasionally he touches on professional matters, as, for instance, "Now for your patient. I believe the best thing you can do is to do little. I would not touch the fungus with an escharotic, for fear the Brain should be near. I would also use but very slight compression, as the fungus will be a bandage to the Brain; and as to the fungus itself, you have nothing to fear, for whenever the parts underneath (*sic*) are sound, that fungus will subside of itself. Keep your patient low and quiet, these funguses will die and be damned to them, and drop off," etc. Another, too long for a quotation, is on the non-existence of matter. In another he implores Jenner to get him a large porpoise "for love or money," thanks him for "so much kind attention, and how to reward you I do not know. Let that be as it will, I must still give you commissions; have interspersed your experiments among my works." Like the present Conservator of the Hunterian Museum (Professor Flower), he

has a peculiar *penchant* for "sculls: send them as compleat as possible, with the lower jaw," etc.

Jenner introduced, after many experiments, his tartar emetic, of which Hunter writes to him, "I am puffing off your Tartar as the Tartar of all Tartars, and have given it to several physicians to make trial, but have had no account yet of the success; had you not [better] let a bookseller have it to sell, as Glass of Oxford did his magnesia? Let it be called Jenner's Tartar Emetic, or somebody's else you please. If that mode would do, I will speak to someone, viz., Newbury," etc. As showing the interest he takes in Jenner and his preparation, he says in another letter, "I wish you would draw out the process for making the Tart: Emet: the Physicians that I have given it to speak well of it, as a more certain medicine than the other." And again in another letter he acknowledges the receipt of the paper on it for the Royal Society, of which he will "take a copy for the Medical Society, which will make more of it than the Transactions."

These letters, twenty-six in number, together with the original paper by Jenner, "An Inquiry into the Natural History of a disease known in Glostershire by the name of the Cow Pox," consisting of forty-five pages, with letter to his son, form a most valuable addition to the collection of medical autographs now being made by the College of Surgeons, and for which the members are so much indebted to the great liberality of Sir James Paget. In the concluding observations of the paper on the cow-pox, Jenner says, "I shall endeavour still further to prosecute this Inquiry—an Inquiry I trust not merely speculative, but of sufficient moment to inspire the pleasing hope of its becoming essentially beneficial to Mankind."

DEATH OF

MARY WOOLSTONECRAFT GODWIN FROM RETAINED PLACENTA.

THE following, from the pen of an old and highly-esteemed contributor, is worthy of more prominent notice than he designed for it. He writes thus:—

Five-and-forty years ago, when I attended the lectures on Midwifery of Professor Robert Ferguson at King's College, he used to quote the case of the well-known Mary Woolstonecraft Godwin as an example of the fatal consequences of not removing a retained placenta. In the early part of this century, the duty of doing so was not recognised so clearly as it is now. Dr. William Hunter at one time of his life advocated the practice of leaving a placenta to nature if not expelled spontaneously, and we read of fatal cases in which the placenta was allowed to remain eleven, twelve, or thirteen days. Even the great Denman scarcely speaks on this point with the thoroughness that might be desired.

Happening lately to become possessed of Godwin's "Memoirs" of his late wife (2nd edition, London, 1788), I am induced to send to your "Notes and Queries" column a few jottings from his singularly interesting account, which will illustrate some of the social and professional doings at the end of the last century. Mary Woolstonecraft Godwin, be it observed, was one of the types and forerunners of the "women's rights" movement. After living for a time with an American named Imlay as his wife, but without the protection of any marriage ceremony, she was basely deserted by Imlay, and transferred her affections to Godwin, and, soon after having become pregnant by him, married him. She died soon after the birth of her second infant, and I will give the particulars chiefly in her husband's own words:—

She was taken in labour on Wednesday, August 30, 1797. Influenced by ideas of decorum, which, as Godwin sensibly adds, "ought to have no place in cases of danger," she determined to have a woman to attend her in the capacity of midwife. The labour began at five in the morning, and the child seems to have been born without difficulty at twenty minutes after 11 p.m. At 2 a.m. on Thursday, August 31, "I received," says Godwin, "the alarming intelligence that the placenta was not removed, and that the midwife dared not proceed any farther, and gave her opinion for calling in a male practitioner. I accordingly went for Dr. Poignand, physician and man-midwife to the same hospital, who arrived between three and four hours after the birth of the child. He immediately proceeded to the extraction of the placenta till he was satisfied that the whole was removed. In that point, however, it afterwards appeared that he was mistaken.

"The period from the birth of the child to about eight o'clock the next morning was a period full of peril and alarm. The loss of blood was considerable and produced an almost uninterrupted series of fainting fits. I went to the chamber after four in the morning, and found her in this state."

"On Thursday morning Dr. Poignand repeated his visit. Mary had just before expressed some inclination to see Dr. George Fordyce. I mentioned this to Dr. Poignand, but he rather discountenanced the idea, observing that he saw no necessity for it, and that he supposed Dr. Fordyce was not particularly conversant with obstetrical cases, but that I could do as I pleased. Dr. Fordyce visited her at about 3 p.m., but saw no particular cause of alarm."

Friday and Saturday, September 1 and 2, passed pretty quietly. On Sunday, September 3, she had a severe shivering fit. "In the evening she had a second shivering fit, the symptoms of which were in the highest degree alarming. Every muscle of the body trembled, the teeth chattered, and the bed shook under her. This continued probably five minutes. She

told me after it was over that it had been a struggle between life and death, and that she had been more than once, in the course of it, at the point of expiring. I now apprehend these to have been the symptoms of a decided mortification occasioned by the part of the placenta that remained in the womb. I immediately sent for Dr. Fordyce, who had been with her in the morning as well as on the three preceding days. Dr. Poignand had also called this morning, but declined paying further visits as we had thought proper to call in Dr. Fordyce."

The progress of the case was now uninterrupted.

"On Tuesday I found it necessary again to call in Dr. Fordyce, who brought with him Dr. Clarke, of New Burlington-street, under the idea that some operation might be necessary. On Monday Dr. Fordyce forbade the child's having the breast, and we therefore procured puppies to draw off the milk."

"On Wednesday (the 6th) it was decided that the only chance of supporting her through what she had to suffer was by supplying her rather freely with wine. This task was devolved upon me. I began about four o'clock in the afternoon. But for one totally ignorant of the nature of diseases of the human frame, thus to play with a life that now seemed all that was dear to me in the universe, was too dreadful a task. I neither knew what was too much or too little. Having begun, I felt compelled, under every disadvantage, to go on. This lasted for three hours." Mr. (afterwards Sir) Anthony Carlisle was sent for this evening. He was a great friend of the patient, and from this time left her no more till the hour of her death. He was earnest in recommending the wine diet. It was impossible to exceed his kindness and attention. In addition to Mr. Carlisle's constant presence, she had Dr. Fordyce and Dr. Clarke every day.

"About ten o'clock on Thursday evening Mr. Carlisle told us to prepare ourselves, for we had reason to expect the fatal event every moment. On Friday and Saturday her faculties were in too decayed a state to be able to follow any train of ideas with force or accuracy of connexion. The shivering fits had ceased entirely for the last two days. She expired at twenty minutes before eight on Sunday morning, September 10, 1797. Her daughter, born at this unfortunate time, afterwards became the wife of Shelley, and was the author of 'Frankenstein.' " D.

FROM ABROAD.

PRIZES AND PRIZE-QUESTIONS AT THE ACADEMIE DE MÉDECINE.

At the annual meeting of the Academy, July 15, Dr. Baillarger, the President, read the list of the prizes that have been decreed for the year 1878. These are in smaller number than usual, no essays having been sent in for some of the prizes, and no awards having been made for others. Thus, no candidate appeared for the Academy Prize on the Reciprocal Influence of Diseases of the Heart and Liver, the Portal Prize on the Pathological Anatomy of the Costal Cartilages, the De Civrieux Prize on the Influence of the Nervous System in Acute Disease, the Capuron Prize on the Modifications of the Buccal Secretions during Pregnancy, the Lefèvre Prize on the Treatment of Melancholy, the St. Lager Prize on the Experimental Production of Bronchocele, and the Ruzé de Lavison Prize on the Changes of Function and the Organic Lesions that are attributable to Acclimatation. It must be the want of attractiveness of the subjects selected that has induced this dearth of candidates, for the sums offered as prizes are liberal, varying from 1000 fr. to 6000 fr. each. The Barbier Prize of 4000 fr. for the discovery of a cure for reputedly incurable diseases was not decreed to any of the seven competitors, but an "encouragement" of 2000 fr. was decreed to Dr. Burq for the continuance of his researches on the action of metals in therapeutics—without thereby implying any guarantee of his theories. Another encouragement of 1000 fr. was given to Dr. Roussel for his work on Transfusion. The Godard Prize of 1000 fr. for the best work on internal pathology, contended for by six candidates, was not awarded, or rather it was split up into "recompenses," one of 1600 fr. to Dr. Pellarin, the author of a work on the Biliary Fever of Hot Climates, and especially on Hæmaturic Biliary Fever. The remaining 400 fr. was accorded to Dr. Testut, of Bordeaux, for his work on Symmetry in Diseases of the Skin. The Orfila Prize of 6000 fr., Aconite and Aconitine, was in fact the only one awarded, and that was given to Dr. Laborde, the chief of the physiological laboratory of the Faculty of Medicine, and to M. Duquesnel, *pharmacien*. Only one memoir was sent in for the Falret Prize of 1000 fr., Prognosis in the Different Forms of Insanity, and for that only an encouragement of 500 fr. was awarded to Dr. Lagurdelle. The Desportes Prize of 2000 fr. for the best work on practical medical therapeutics was not adjudged to either of the three competitors. An encouragement of 1000 fr. was, however, given to Dr. J. Lambert, of Nice, for his work on the Action of Compressed and Rarefied Air in Diseases of the Lungs and Heart.

Of the prize questions for 1880, those for the Academy

and Portal Prizes are the same repeated which failed to attract competitors for this year. The De Civrieux Prize of 1500 fr. will be given for the best essay on the Influence of the Nervous System in Diseases of the Heart. For the Capuron Prize of 1500 fr. the question is, the Influence of Coxo-femoral Luxation on the Conformations of the Pelvis. For the Barbier Prize of 7000 fr. the discoverers of cures for diseases reputed incurable are invited to compete, and may be rewarded by encouragements even when they fall short of their complete aim. The Godard Prize of 1500 fr. will be given to the author of the best work on internal pathology; and the Desportes Prize of 2000 fr. for the best work on practical medical therapeutics. Madame Buignet's Prize of 1500 fr. will be given for the best manuscript or printed work on the Application of Physics or Chemistry to Medical Science (printed works by foreigners or translations are excluded). The Orfila Prize of 2000 fr. will be given for the best essay on Veratrine Sabadilline, and black and white hellebore. For the Falret Prize of 1500 fr. the question is "De la Folie désignée sous les Dénominations de Folie Circulaire, Folie à Double Forme, et Folie à Formes Alternes." The Huguier Prize of 2000 fr. will be awarded for the best work (manuscript or printed) in France on Diseases of Women, and especially the Surgical Treatment of these affections. The St. Lager Prize of 1500 fr. is for the experimental production of bronchocele by administering to animals the substances extracted from the waters or soils of countries in which goitre is endemic. All essays or books in relation to these prizes must be delivered at the Academy before July 12, 1880.

ANTISEPTICS ON THE BATTLE-FIELD.

At the eighth Congress of German Surgeons, Prof. Esmarch of Kiel observed (*Wiener Med. Wochenschrift*, June 7) that in 1875 he had given some very positive directions as to the employment of antiseptics during battle, but as these had been either disputed or misunderstood, he felt desirous of again bringing them forward, with some explanations. He sets out from two maxims—one being that although the exact carrying out of the antiseptic method may be difficult, yet the surgeon should be so penetrated with its principles that he should make it his guide in any treatment adopted. The other is, that the surgeon must before all things be careful that no harm is done to the wound by unnecessary probing, the introduction of unclean instruments, the application of undisinfected dressings, etc. For the earliest aid to be given to the soldier on the battle-field, Prof. Esmarch has devised a dressing-pocket which every soldier can take with him in place of the charpie hitherto used. It contains, wrapped up in parchment-paper, a triangular cloth, a piece of stiffened gauze bandage, and two antiseptic balls—these consisting of salicylated wadding surrounded by carbolic gauze. Such a dressing serves for by far the greatest number of injuries received in battle. In favour of its use it may be stated—(1) most injuries in battle are simple gunshot wounds; (2) hæmorrhage, as a rule, is very slight; (3) the secretion from the wound is very small, and remains so if the wound is managed antiseptically; (4) the most severe wound remains in an antiseptic condition if an antiseptic scab is once formed over it; (5) the ordinary charpie is positively detrimental to the formation of such a scab; (6) the antiseptic balls contribute much to its formation; (7) the antiseptic balls can be sufficiently protected by wrapping them in gutta-percha paper. The antiseptic balls should be applied directly to the wound, covered with gutta-percha paper, and fixed on by means of stiffened gauze. This dressing can be kept moist by any suitable fluid the soldier may have about him, such as water, wine, or brandy. The triangular cloth may be used to keep the wounded extremity in a quiet position. In order to apply such a dressing no technical knowledge or acquaintance with the antiseptic method is required. The packet should not be kept in the soldier's pocket, but sewed into some safe part of his uniform. Prof. Esmarch has had no opportunity of trying his dressing packets, but the trials made of them by Drs. Bergmann and Reyher during the late Russo-Turkish war have strengthened his conviction of their utility.

At the same Congress, Prof. Paul Brüns, of Tübingen gave an account of a substitute for Lister's gauze which is very suitable for military practice. To four hundred grammes of colophony that has been passed through a very fine sieve

are gradually added two litres of spirit, constantly stirring for the fifteen or twenty minutes required to dissolve the colophony. After this has been completely dissolved, one hundred grammes of carbolic acid and eighty of castor oil are added, stirring until thoroughly mixed. In time of peace, for the castor oil one hundred grammes of melted stearin may be substituted; but the solution will then have to be made at a temperature of 15° Réaumur. With this from twenty-seven to thirty metres of unstiffened gauze is impregnated by the mixture being equally diffused over it in large flat vessels. The bandage material is then dried, in order that the spirit may evaporate, this taking place in five minutes in the open air in summer, and in from ten to fifteen minutes in a moderately warm locality in winter. The material so prepared will remain unchanged for months if kept in a tin box. For use in war time, a concentrated mixture may be prepared and kept in air-tight bottles, to be diluted with spirit before spreading on the gauze. The advantages of this gauze so prepared are—1. That it is a complete substitute for the Lister dressing. 2. It can always be prepared quite fresh. 3. It produces no irritation of the skin. 4. It can be prepared in half an hour. 5. Its price is only half that of Lister's gauze. Even this price can be greatly reduced by boiling the gauze that has been used, and reimpregnating it. This in nowise interferes with its antiseptic quality; and, as the same gauze will bear ten or fifteen boilings and impregnations, it becomes a very cheap preparation.

REVIEWS.

Papers on the Female Perineum, etc. By J. MATTHEWS DUNCAN, A.M., M.D., LL.D., F.R.S.E., Obstetric Physician to St. Bartholomew's Hospital. London: J. and A. Churchill. 1879. Pp. 156.

THIS work is for the most part a reprint of papers which have already appeared in different medical periodicals.

It may be said to consist of two portions—the one a study of the injuries to which the perineum is liable during childbirth; and the other an account of the mechanism and treatment of prolapsus uteri. The author says in his preface that "the subject is only fragmentarily treated of in this little volume," and therefore it is not fair to complain that the book is incomplete.

The first part of the work is that in which its chief value lies. It was to be expected that the problems on which a writer so eminently scientific in his mental attitude as Dr. Duncan, would expend his best strength, would be those as to which some exactness is possible; and that when treating them he would do it with thoroughness, not assuming certainty where no certainty exists, nor deluding himself and others by superficially passing over the difficulties of his subject.

Medicine is most advanced when it reaches the preventive stage. In prolapsus uteri, although the construction of pessaries, etc., is useful enough, yet it is not the highest function of the obstetrician. It may be a great achievement to contrive something which will keep up a prolapsed uterus; but it is a far greater thing to show how that organ may be prevented from coming down. As everyone knows, one of the most frequent causes of this condition is damage to the perineum during childbirth. It is obvious that before we can find out how to prevent injury to this part, we must know how and why it suffers harm. All this Dr. Duncan has seen. His first step is to precisely define the meaning of the anatomical terms that he has to use. The description he gives of the external generative organs, short as it is, is one of the most valuable and necessary parts of the book. Then he begins the study of prolapsus uteri by noting the injuries of the genital orifice which occur during the passage of the child. We shall not attempt to abstract the author's account of what he has observed; it is terse, minute, and exact. Those who wish to understand the subject must read the book. We can only say that no one has hitherto so carefully investigated this subject; that it was one which much needed research, and that Dr. Duncan has done it well.

The second part of the work treats of prolapsus of the pelvic viscera in the same scientific manner, the simpler problems—those relating to the anatomy and causation of the disease—being gone into at the greatest length, and the less certain subject of treatment being handled with a com-

parative brevity corresponding to the less exact knowledge that we have concerning it. Dr. Duncan does not discuss the various modes of treatment which have been recommended, but simply describes those which he has himself found useful. He prefers a T bandage, with a perineal pad, and dislikes vaginal pessaries, excepting where their use cannot be avoided. If an instrument of the latter kind be necessary, then he uses one denoted by a name which describes it, the "disc and stem." He also gives an account of the kind of operation by which he thinks the perineum is best restored. The perineum, he holds, plays a subordinate part only in the production of prolapsus, its absence favouring only, not causing, descent of the pelvic viscera.

It is with much hesitation that we differ with Dr. Duncan, yet we cannot think his disc and stem pessary an instrument so satisfactory as some others that we are acquainted with—e.g., Coxeter's "cup and stem." And also, when the perineum is to be restored, we prefer to make a thicker and stronger one than is produced by the operation Dr. Duncan describes. Upon these matters, had it been his purpose, Dr. Duncan would doubtless have given good reasons for his choice.

The book is a most valuable addition to obstetric knowledge; no one practising, or interested in, that specialty can wisely omit to carefully study it.

De l'Action Physiologique et Thérapeutique de l'Ergot de Seigle: Etude Expérimentale et Clinique. Par le Docteur J. H. PETON, Ancien Externe en Médecine et en Chirurgie des Hôpitaux de Paris (médaille de bronze de l'Assistance Publique), etc. Paris: 1878. Pp. 97.

On the Physiological and Therapeutical Action of Ergot of Rye: an Experimental and Clinical Study. By Dr. J. H. PETON, etc. Paris: 1878.

WE notice this contribution at greater length than we can usually do works of its class, because it contains records of experiments on animals. As English physicians are practically forbidden to avail themselves of this mode of research, we are obliged to get, as it were, second-hand, from foreign sources, the valuable knowledge to be thus obtained.

Dr. Peton's work consists of three parts; the first two experimental, the third clinical. The experimental parts contain a narrative of, and commentary upon, twenty-nine experiments. Twenty of these belong to the first part, and are given to ascertaining the effects of ergot upon different organs and structures. The second part consists of nine experiments, performed with the object of comparing the different preparations of the drug. The first part is that which has the greatest interest for us.

The most striking results which Dr. Peton observed, and those which appear the best ascertained, and least liable to misinterpretation, are the following:—He injected ergotine at the base of a rabbit's ears. In five or six minutes both ears began to get anæmic, and the pupils to dilate; this gradually increased, and lasted several hours. Its intensity and duration varied according to the dose of ergot given. Dr. Peton next divided the sympathetic in the neck of a rabbit, and dilatation of vessels and contraction of pupil on the corresponding side followed as usual. The ergot was then injected, as in the before-mentioned experiments: its administration was followed by anæmiation of the ear and dilatation of the pupil. The author then, in another experiment, divided both the sympathetic and the great auricular, and, when the vascular dilatation and contraction of pupil was at its height, injected ergot. The resulting anæmiation and dilatation of pupil were as pronounced as before. To ascertain the comparative effect of injecting ergot at a greater or less distance from the part at which its action was desired. Dr. Peton, after having divided the sympathetic of a rabbit on one side, injected the drug into the buttock. Anæmiation of the ear and dilatation of the pupil followed, but not to the same degree as had been noticed when the injection was made into the neighbourhood of the part itself. When ergot was taken into the stomach not only was a much larger dose required to produce an effect equivalent to that of hypodermic injection, but the result was slower and less certain. Dr. Peton concludes that the effect of ergot is not produced through the nervous system, but that it has what may be called an elective affinity for unstriated muscular fibre, acting directly upon this structure; and that subcutaneous injection is the best and most certain mode of securing its effect.

So far as we are aware, Dr. Peton has the merit of originality in his mode of experimenting; and if his results are trustworthy, as they seem to be, they throw valuable light on the subject. It is, of course, very desirable that they should be verified by others; but this we in England are unfortunately forbidden to do. All we can do is to quote them, and thank the author for the addition he has made to our knowledge.

Étude Historique et Clinique sur la Trépanation guidée par les Localisations Cérébrales. Par le Dr. JUST LUCAS-CHAMPIONNIÈRE, Chirurgien des Hôpitaux de Paris.

Historical and Clinical Study of Trephining guided by Cerebral Localisations. By Dr. LUCAS-CHAMPIONNIÈRE, Surgeon of the Paris Hospitals. Paris. 1879. Pp. 150.

DR. LUCAS-CHAMPIONNIÈRE has here presented us with a very useful contribution to the study of a subject which is now justly exciting very great interest in the medical and surgical world, and although his remarks will be chiefly interesting to surgeons, they will also, although perhaps indirectly, throw considerable light on the surgical treatment of some diseases usually regarded as medical. The practice of removing a portion of bone from the cranial vault, whether for the purpose of elevating depressed bone, of removing splinters, or of giving vent to sanguineous or purulent accumulations, has long been an established proceeding in surgery; but it is only in recent times that the proposal has been made to attempt the cure of some cerebral diseases by the same method.

It will be generally admitted that when a collection of matter or an extravasation of blood has impaired or abolished the functions of the brain, the best and surest means of cure is to discover the seat of disease and to allow the escape or removal of the morbid effusion; but the difficulty has always been to fix with sufficient precision the exact locality where the instruments of surgery ought to be applied, and it is well known that many mistakes have occurred in such attempts. Recent researches, however, have contributed very materially to clear up many of the practical difficulties which beset the surgeon in his operations on the skull and the brain; and, guided by ascertained physiological data, an approximative idea may now be formed as to the spot where the source of cerebral mischief exists, and where, accordingly, surgical ministrations ought to be directed. Dr. Lucas-Championnière, who has made some very valuable contributions to this difficult department of surgery, writes with sufficient caution in the treatise now before us, but he states that one of the causes of the confidence which will hereafter be placed in the operation of trephining will be the progress made in the solution of the following problem, which we give in his own words: "Given certain disturbances of motility consecutive on injuries of the cranium, the observation of these disturbances will pretty clearly indicate the region of the cortical cerebral substance concerned, so as to guide with security the hand of the surgeon who proposes to relieve the injury of this region by trephining the cranium."

Although the operation of trephining the cranium is evidently well adapted, in theory, to rectify some displacements of the osseous structure, or to allow the escape of effused fluids, it has not been much practised in recent times, and several distinguished surgeons in modern days have not only discontinued the practice, but have even thrown doubts on its permissibility. Dr. Lucas-Championnière, however, is an ardent advocate of the proceeding in all appropriate cases, and he proves, as we think satisfactorily, that the operation is often eminently successful, while its dangers have been unduly exaggerated in many quarters. In his first chapter, which is a very interesting one, he shows that trephining was performed in all probability by pre-historic man, perhaps as a religious ceremony, and that it is now a very common proceeding in some savage or semi-savage nations; as, for instance, among some of the Algerine tribes. He also shows that the operation has been long practised among the miners of Cornwall, certainly since the end of the last century, and that in the accidents which often occur in the mines of that country, the patients voluntarily submit to the proceeding, and generally do well, the unsuccessful cases being those in which there has been some previous complication.

Dr. Lucas-Championnière has collected, with great industry, a number of striking cases showing the beneficial effects of trephining the skull for injuries of the brain; and

the first case he gives as having occurred under his own notice is well worthy of perusal. It is related at length, but the chief features were that a youth who was found insensible in a street in Paris, supposed to have been attacked by assassins, was brought into the Lariboisière Hospital in a comatose state, which was succeeded by convulsive movements, chiefly affecting the left upper limb, and by paralysis of the right arm. As the case was a desperate one, and trephining appeared to be the last and only resource, Dr. Lucas-Championnière, being partly guided by the seat of contusion and partly by reasoning on the connexion proved to exist between localised manifestations in the limbs and corresponding motor centres in the cerebral mass, performed the operation, and succeeded in discovering a depression of the cranium, with fragments of bone impacted in one another. The bone was raised, the fragments were detached, and a splinter implanted in the dura mater was extracted. After this operation the patient gradually improved, and at last was entirely cured.

In commenting on the above case, Dr. Lucas-Championnière admits that he acted empirically, only knowing that the lesion was on the left side because the paralysis was on the right, and supposing that there was a fracture of the internal table of the skull in the vicinity of the point where there was a lesion of the integuments. But since this operation was performed, physiologists began to recognise the motor cortical centres of the brain, and to study them with precision; and Dr. Lucas-Championnière then entertained the idea that whenever one of these centres was affected by a wound, the phenomena, whether epileptic or paralytic, which result from the lesion would serve to guide the surgeon in an exact manner to the seat of disease.

The pursuit of this idea forms the most important part of the work; but it is quite impossible to explain the course of reasoning pursued by the author without the illustrative diagrams which are contained in the body of the book. It must suffice to state that, starting from the views of Ferrier, Broca, and others, the author has described certain portions of the skull as corresponding to motor centres in the brain; and that, making use of these guides, he shows that the surgeon may be directed with something like certainty to the spot where he ought to apply the trephine in case of a wound or accident to the head. We need scarcely remark that the subject of morbid cerebral localisations, and their connexion with motor manifestations in the muscles in various parts of the body, is one still involved in great practical difficulty; but the present work of Dr. Lucas-Championnière is valuable, both for the facts it contains and the suggestions it offers.

Hydropathy; or, the Practical Use of Cold Water. By MARLETT BODDY, F.R.C.S. London. 1879. Pp. 51.

THE word "hydropathy," in its etymological sense, by no means conveys the meaning intended by Mr. Boddy, who, being a legitimate practitioner of medicine, pointing out the uses of water, would have done better to adopt the title of "Hydrotherapeia." While there is very little objection to be made to the principles and the practice inculcated in this pamphlet, it may be observed that the author is perhaps carried away too far by his zeal when he advocates the use of cold water as arresting cancer, and as modifying "mollities ossium and other incurable complaints" (page 9). He fears that he will excite some surprise and incredulity when he states that he has seen more benefit accrue from the cold-water treatment of rheumatic fever than from all the other various therapeutic measures generally adopted, and he considers that salicylic acid, according to many accounts, has signally failed as an antidote. In chronic rheumatism Mr. Boddy has known cold-water applications to the diseased joint speedily produce ease and comfort, and he gives an instance in proof of this statement. It is right to state that Mr. Boddy does not deprecate the use of the ordinary medicinal agents in the treatment of diseases and injuries, and, as we have remarked, many of his precepts are to be commended. He does not condemn altogether the use of alcoholic liquors, and admits them to be useful when judiciously and moderately used; but he very strongly and properly represents the misery and disease which attend their improper use, and he does not spare a few words of condemnation even of tea and coffee, which, when used in excess, are very far from being innocuous.

FOREIGN AND COLONIAL CORRESPONDENCE.

AMERICA.

PHILADELPHIA, July 15.

THE STATUS OF HOMŒOPATHY—THE HOMŒOPATHIC PROFESSORSHIPS IN THE UNIVERSITY OF MICHIGAN AND THE UNIVERSITY OF PESTH—DR. DUNSTER, OF MICHIGAN, ON THE DECLINE OF HOMŒOPATHY—HARVARD MEDICAL COLLEGE AND LADY MEDICAL STUDENTS.

SOME very just remarks on the status of homœopathy in public institutions of learning have recently been made in a paper by Dr. A. B. Palmer, formerly Professor in the University of Michigan. I have alluded frequently to the action of the Legislature of that State, which several years ago engrafted on the regular collegiate medical instruction a school of homœopathic doctrines and teaching. Some interesting facts have been developed to prove that the followers of that exclusive dogma feel that they are suffering by such direct comparison, and that their cause would thrive better if the falsity and absurdity of their doctrines were not brought so conspicuously into the light, where its pretensions can be detected. In the *Michigan Medical News* of a recent date is a letter from Dr. Birdsell, of that State, giving an account of the general decline of the system, especially on the Continent of Europe; and more particularly of the effect of the introduction of homœopathic professors and their teaching into the University of Pesth, in Hungary—probably the only place in Europe where it has a prominent position in a government institution, established by law, holding any relations to the teaching of regular medicine. It seems, from a letter from Professor Seligmann, of the University of Vienna, to Dr. Palmer, that he (Professor Seligmann) inquired officially and fully into the matter for the purpose of presenting the facts to the Austrian Parliament, when the question of introducing homœopathy into the great medical school of Vienna was proposed. A Bill was passed, however, by the Hungarian Parliament, establishing two professorships, and a hospital for the teaching of homœopathy at the University of Pesth. It was carried into effect, and has been in operation ever since. The homœopathic courses were made elective, supplementary to the regular course, and no examination was required. Professor Seligmann states that the greatest number of students at any one lecture during the whole time was six, and that often the only hearers of one professor were the other professor and the assistants of both. He said that the history of homœopathy showed that it flourished while it was opposed and persecuted, but that since its introduction at the University of Pesth it had gradually lost ground in Hungary. It had proved, however, to be rather an expensive experiment to the Government. He states that the most decided opposition to the establishment of a homœopathic school in connexion with the Vienna University came from the Society of Homœopathic Physicians of Vienna, who presented a petition objecting to the passage of the Bill, saying that homœopathy could stand upon its own ground, and did not need governmental aid—from which it was inferred that they did not wish to have the ridiculous result which had occurred at Pesth repeated at Vienna.

These facts may be familiar to your readers, who are nearer these scenes than our own, or are made so through direct communication with that great medical centre, but I have given them because they have almost a counterpart in this country in the experience of the Michigan University, though the details are slightly different. In Hungary the two homœopathic professors were introduced into the school as colleagues of the professors of regular medicine. In Michigan a separate college was established, with no professional relations or communications existing between the two faculties. The students of the homœopathic college were to be permitted to attend the lectures on anatomy, chemistry, physiology, and obstetrics in the regular school, just as students in homœopathic colleges are allowed by the hospital regulations to take hospital tickets, and attend the clinical teaching of regular professors; but they are not entered upon the faculty books or specially recognised as members of the class, and no certificates or evidences of attendance are given them by the regular professors.

At the last annual meeting of the American Medical Association, the question of the propriety of the teaching of homœopathy by medical men of good standing in the regular profession was introduced in the shape of an amendment to the code of ethics, declaring that it is derogatory to the interests of the public and the honour of the profession for any physician or teacher to aid in any way the medical teaching or graduation of persons, knowing them to be supporters and intended practitioners of some irregular and exclusive system of medicine. Dr. Dunster, of the University of Michigan, who was present, and as a member of the faculty of that school personally interested in the question, offered a very forcible, well-worded, and ably-delivered argument from his standpoint, reviewing and discussing in every feature the aspects which the case presented. He has since published it in pamphlet form, in order that the profession at large should thoroughly comprehend the merits of the controversy—for such it now seems to be. He contends that the proposed amendment denies the right of medical education to all except believers in our own system; that it would prevent teachers from proclaiming the stability and truth of the principles we believe, and contrasting them with error, and defending them against the pretentious claims of those “whose practice is based on an exclusive dogma”; that it would prohibit the dissemination of truth among a certain portion of the public that stand most particularly in need of it. He argued also that so long as the public will insist on having homœopathic physicians, it must be conceded that it is better for the interests of the said public that such physicians should be educated as thoroughly as possible, and if this be so it is not in any sense detrimental to the interests of the public to take part in the work of educating them. Such an amendment, he thought, would be inoperative, because it was illegal, and as such would remain a dead-letter, and an incumbrance on the pages of the code. It would close every public clinic in the United States, he said, if enforced, for homœopathic students in all our large cities are constant attendants upon them. In the homœopathic colleges the text-books used are often those that are written by members of the regular school of medicine: this, he thought, would be another violation of the code, which would be in this respect inoperative. There is not a court in the land, he said, which would refuse to issue a *mandamus* compelling every college holding a charter from the State to admit to attendance on its lectures any man, whether homœopathic in his views or not, who complied with its published requirements. The student cannot be deprived of his rights in the matter of public education merely because he entertains a private belief with regard to the truth or falsity of any system of medicine. He urged that the assumption was fallacious that the teaching of believers in the homœopathic faith tended to build up and strengthen such systems; which was nothing more than saying that the teaching of scientific truth tended directly to the promotion of error. He believed that homœopathy and all so-called irregular medicine would disappear from the face of the earth if their adherents were compelled to be thoroughly educated in scientific medicine before they were allowed to study or practise their exclusive dogmas. In Europe every homœopathic physician must first graduate in regular medicine, after which he can adopt and practise whatever system he chooses. This education accounts for the declining and almost dead condition of homœopathy on the continent of Europe to-day; there is nothing left of it but a belief in the law of specifics. With the exception of two chairs in the University of Pesth in Hungary, there is not a homœopathic college or professorship on the Continent; and yet in the great University of Leipsic there has existed for many years a fund for the establishment of a homœopathic professorship, no one of sufficient merit, according to the German standard, having yet been found to fill the chair. They have no hospitals or clinics of any large size or importance, and as a sect in medicine they have no scientific status. At the World's Homœopathic Congress, held in Philadelphia in 1876, there were gathered leading physicians of this school from all parts of the world, and the European representatives said that it was useless to expect any advance of their system in Europe, because they could not, under the governmental restrictions which now prevailed, free their students from the influence of the traditions and the teachings of the old school. Looking nearer home, Dr. Dunster then cited the result of the enactment of a law in Canada requir-

ing all practitioners of medicine in the province to pass an examination of a definite standard before entering on their work, to be prospectively the practical killing of irregular medicine. On passing the examination, the applicant was at liberty to practise any system of medicine he might prefer; but since the enactment of this law, but one applicant has come forward for a licence to practise homœopathy. A petition has recently been sent to the Michigan Legislature, asking for the removal of the Homœopathic Medical College from the University; this was signed among others by thirty-seven homœopathic physicians who claim to represent the opinion of a large majority of the profession (homœopathic) in Michigan and other States. They regard the experiment of allowing homœopathic students to be taught by regular physicians as a failure, chiefly, as they say, from the hostility of the allopathic school, but really because their dogmas do not stand the test of the bright light of truth. Professor Cole, of San Francisco, California, has knowledge of eleven students whose preceptors were homœopathic physicians, and who were themselves adherents of that system, all of whom were brought in their college training to see the fallacies of the exclusive system of medicine which they had originally adopted. The Association, after listening to Professor Dunster's argument, bequeathed the whole subject to the meeting of next year at New York, when the opposite side will have an opportunity of being heard. An opponent of equal energy, earnestness, ability, and argumentative powers will be found with difficulty. One of the most respected members of the Association at the Atlanta meeting—one of its ex-Presidents—was heard to say that Dr. Dunster had left the opposite side of the question entirely bald-headed, but I presume that in New York, next June, an effort will at any rate be made to cover it with a wig.

Harvard Medical College was offered last year a considerable amount of money by a lady who had the interest and advancement of women at heart, provided the sex should be admitted to the same instruction as men, and on an equal footing. When the matter was referred to a committee two reports were presented, one of which recommended that the experiment of admitting women be tried for ten years, but that the two sexes should be separated for personal instruction in laboratories, recitations, and in the pursuit of such other subjects, anatomical and practical, as might, with delicacy and propriety, be taught them apart. The minority report opposed the admission of women to the existing school, but recommended the establishment of a distinct medical school for them, possibly under the protection of the University, and giving special attention to those branches which are of the greatest importance to the sex. The authorities of the College, however, have concluded not to accept the offer of money under the conditions imposed. This action is to be regretted, as women will enter upon such professional study if so disposed; and it is both appropriate and expedient, therefore, to offer them the best facilities for so doing. The conflict of public opinion in regard to the proper sphere of woman's usefulness in this direction, which at one time agitated the popular mind, seems to be at an end, having been lulled into tacit acquiescence and non-resistance from her professional brethren. Certainly, in this country the women's medical colleges, so far as I know, aim at an elevated standard of professional excellence, and are quietly pursuing the even tenor of their way in what they deem a good cause. Although individuals here and there become diverted into paths of quackery, and use their acquired knowledge disreputably, they follow in this line of dereliction of duty an example set to them by the other sex, in whom a want of moral and mental balance is sometimes observable, even in men of presumably honourable standing.

GRATUITOUS RIDING FOR MEDICAL STUDENTS.—The Paris Faculty of Medicine has adopted a measure likely to be followed by other teaching bodies—viz., the issuing gratuitously every day to students a certain number of tickets for tramways and omnibus, which are only available between the hours of ten and twelve. This is done in consequence of the difficulty which many students find in attending the clinics at the different hospitals, owing to the distances which have to be traversed within a short period of time.—*Union Méd.*, August 5.

PROVINCIAL CORRESPONDENCE.

MANCHESTER.

August 16.

THE VICTORIA UNIVERSITY AND MEDICAL DEGREES.

THE decision of the Privy Council not to grant to the Victoria University the power to confer degrees in medicine, and the determination reluctantly arrived at by the Owens College authorities to accept the charter in its altered form rather than refuse it altogether, naturally form just now the prominent subject of conversation in medical circles. It is pretty certain that if there had been a more thorough understanding between the promoters of the University scheme and the neighbouring medical schools of Liverpool and Leeds there would have been little or no opposition on the part of the medical profession to the granting of the charter in its entirety. A deputation from the Liverpool School paid an informal visit to Manchester two or three months ago, and had an interview with the Dean of the Medical Faculty and one or two of the leading officials of the Owens College. The impression left on the minds of the Liverpool deputation by this interview appears to have been utterly different from that produced on the representatives of the Manchester College. The gentlemen composing the deputation went home, it seems, disappointed and hurt, and reported to their colleagues that Liverpool was to be entirely disregarded in the proposed scheme. The Owens College representatives, on the other hand, came away from the interview fully believing that the questions put to them by the deputation had been answered in a manner that could not fail to be satisfactory to the Liverpool School; and their only fear was that, in their endeavour to be conciliatory, they might possibly have committed themselves to provisions which they would have difficulty in inducing the governing body to endorse. The proof that the claims of Liverpool were not really disregarded, and that the deputation took a mistaken view of the attitude of Manchester, lies in the fact that, when the draft charter was prepared, clauses were inserted distinctly providing that attendance on lectures and hospital practice at Liverpool, by a student who had duly matriculated at the Victoria University, should qualify for admission to the medical examinations precisely as if the attendance had been at Manchester.

Meantime, however, the memorial of the Liverpool School had been published in the journals, and had received the support of a great number of the leading teachers of the metropolis, to whom its carefully selected arguments appear to have been convincing. A still more carefully worded memorial was circulated among the metropolitan and other schools, and the signatures of more than one hundred and fifty teachers were quickly obtained. The points mentioned in this memorial were chiefly these—1. That nineteen licensing corporations are already in existence; and (2) That the Manchester School of Medicine has no superior claims over other schools in London or the provinces which can entitle it to such a special distinction as that of conferring degrees to practise medicine or surgery. With regard to the first point it is, of course, highly undesirable than an additional licensing body should be created at the present critical juncture in medical legislation, but I believe I am correct in saying that no medical teacher in Manchester was in favour of such a step. All that was desired was that the new University should have power to confer degrees in medicine upon those who, having already obtained a registrable diploma, and desiring a higher distinction, should acquit themselves satisfactorily in an examination, which in its character and stringency should be to all intents and purposes equivalent to an honours examination. There was the very strongest wish on the part of Manchester to avoid anything which, in the words of the memorial, "would be detrimental to the public and the medical profession, as tending to lower the standard of medical qualification." It is possible that this had not been made sufficiently clear. The medical department has only recently been incorporated with the Owens College, and its influence in the College is not as yet commensurate with its importance; it had no share in elaborating the University scheme, and its advice was not sought as to the preparation and wording of the charter. This may possibly account for a good deal of the misunderstanding that has prevailed, and that has wrecked,

at any rate for the present, a very important, if not the most important, portion of the whole scheme. The second point in the memorial, the absence of any special claims of the Manchester School, has been so fully and ably dealt with by Professor Arthur Gamgee, in a letter which appeared in your columns on August 2, that I need make no further allusion to it, beyond stating that the success of the Manchester students in the recent M.B. examination at the University of London shows that the position of the School is not so hopeless as the table issued by the College of Surgeons would lead a superficial observer to suppose.

The agitation, wise or unwise, has meanwhile proved successful, and the English student must for the present continue to compete at a disadvantage with his more fortunate neighbours who have received their professional education at the Scotch and Irish Universities. Since the Medical Act of 1858 placed Scotch and Irish graduates on an equal footing, as regards freedom to practise throughout the three divisions of the kingdom, with those who obtained their licence to practise from the English corporations, the desirability of affording increased facilities to English students for obtaining degrees in medicine has been keenly felt and frequently and earnestly expressed. We seemed just now to be on the threshold of a more equitable arrangement, so far, at any rate, as one division of the kingdom was concerned; but our own little misunderstandings and rivalries have interfered at the last moment to thwart the scheme, and the opportunity has been thrown away.

GENERAL CORRESPONDENCE.

"A CURIOUS CASE—? HYDRONEPHROSIS."

LETTER FROM MR. S. K. COTTER.

[To the Editor of the Medical Times and Gazette.]

SIR,—The "curious case" given in your issue of 16th inst. derived its peculiarity from the fact that if not congenital it was certainly of very old standing. The man had, so to speak, three bladders. If there had been impaction of a stone, or any obstruction to entrance of urine through the substance of the bladder itself; or, again, if there had been urethral stricture, then the case would, I suppose, be merely unusual, and not peculiar. I am, &c.,

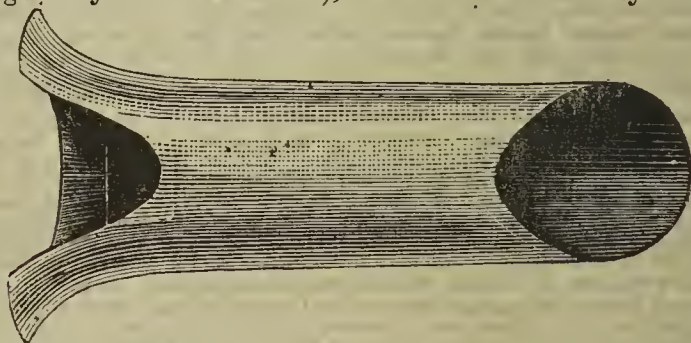
Ballincollig, August 17.

S. KYLE COTTER.

NEW INVENTIONS AND IMPROVEMENTS.

NEW "TOUCH AND SIGHT" SPECULUM.

IN appearance and construction the above-named speculum, manufactured by Messrs. Salt and Co., of Birmingham, resembles the ordinary Fergusson's speculum, the improvement claimed for it being that it is shorter (so that a short finger may find it available), its outward extremity being



more trumpet-shaped, and deeply notched on the side corresponding to the lower part of the bevil, at the further extremity of the speculum, so as to enable the finger to reach and examine the os without difficulty,—a great desideratum in obstetric practice. The speculum was suggested by Mr. Hickinbotham, of Birmingham.

THE AFGHAN WAR.—The recent "Gazette" of rewards for services during the late Afghan war names one doctor. Are all others to pass unrewarded?

OBITUARY.

SIR THOMAS MACLEAR, F.R.S.

MEDICAL and astronomical science has lost another distinguished student by the death of this gentleman, which has just taken place at the Cape of Good Hope, where he was the Astronomer-Royal. The deceased gentleman passed his examination and was admitted a Member of the Royal College of Surgeons of England so long ago as 1815, when he must have been at least twenty-two; consequently, at the time of his death he had reached the great age of eighty-six. He commenced the practice of his profession in Bedfordshire, but, always attached to astronomical studies, he soon made the acquaintance of another distinguished astronomer, Admiral Smyth, who induced him to proceed to the Cape of Good Hope to make some important investigations. These proving very successful, obtained for him most deservedly the appointment of Astronomer-Royal, and the Fellowship of the Royal and other learned societies at home and abroad. The deceased gentleman received the honour of knighthood by patent, and in June, 1863, a pension of £100 per annum was granted him. Lady Maclear died in 1861.

MEDICAL NEWS.

UNIVERSITY OF ABERDEEN.—During the past year, the following candidates, after the usual examinations, received degrees in Medicine and Surgery:—

THE DEGREE OF M.D.

Alexander P. Torry Anderson, M.B., C.M., London; James Anderson, M.B., C.M., Aberdeen; Henry Bartlett, M.B., C.M., London; George Pearson Bell, M.B., C.M., Leicester; Arthur Bennett, M.B., C.M., Stawell, Victoria; Samuel D. Clippingdale, M.B., C.M., St. George-in-the-East; Alexander Craigmile, M.B., C.M., Seacombe, Cheshire; James Cran, M.B., C.M., Great Harwood, Lancashire; Robert Cran, M.B., C.M., North Lakhimpur, India; Frederick William Evans, M.B., C.M., Cardiff; Benjamin Evers, M.B., C.M., London; William Fergusson, M.B., C.M., Fraserburgh; Robert Aikman Gray, M.B., C.M., Montrose; James Gordon, M.B., C.M., Walsall; Robert Keith Guild, M.B., C.M., Kokstadt, South Africa; James Heelas, M.B., C.M., London; Alexander Milne Henderson, M.B., C.M., Highgate, London; John Charles Huxley, M.B., C.M., Edgbaston, Birmingham; Henry Mason Jay, M.B., C.M., Chippenham; Alexander Gibson Macgregor, M.B., C.M., Canisbay, Wick; John Mackay, M.B., Dunkeld; Alexander Morrison M'Aldowie, M.B., C.M., North Staffordshire Infirmary; Patrick Brodie H. M'Leod, M.B., C.M., New Deer, Aberdeenshire; Hotham George Orlebar, M.B., C.M., London; George Washington Smith, M.B., C.M., Methlick; William Robert Smith, M.B., C.M., Broomhill, Sheffield; William Lemmon Stewart, M.B., C.M., Keith; George Shewan Trail, M.B., C.M., Strichen; James William Helenus Trail, M.B., C.M., Aberdeen; George Watt, M.B., C.M., Saltburn-by-the-Sea, Yorkshire.

THE DEGREE OF M.B.

Lewis Daniel Alexander, M.A., Aberchirder, Banffshire; George Arthur Batchelor, London; Arthur George Blomfield, King's Lynn; Walter Brown, Tetbury, Gloucestershire; Ernest Brumwell, Kendal; Alfred Henry Burton, Sevenoaks; John Kerr Butter, Forfar; William Clarke, M.A., Deskford, Cullen; Thomas Joseph Compton, Aberdeen; George Coutts, Kincardine O'Neil; Morgan Davies, Llangwryfon, Cardiganshire; Arthur Symons Eccles, Plymouth; Heber Dowling Ellis, Eastbourne; Frederick John Fehrsen, Cape of Good Hope; William Balfour Fergusson, Doune, Perthshire; Ernest Field, Bath; Donald Manson Fraser, M.A., Invergordon, Ross; Francis Carteret Gayton, Great Hadham, Herts; Heneage Gibbes, New Wandsworth; Charles Glass, M.A., Glenrines; Gerald Samuel Harper, London; Alfred Paul Hart, Norwich; Charles Hoar, London; Ho Kai, Hong Kong; George Alexander Legge, M.A., Huntly; Charles Low, Dundee; Alfred de Courcy Lyons, Bristol; Peter William Macdonald, Glenlivet; William Mackie, M.A., Fyvie; William Adam Michie, Aberdeen; James Thomas Mitchell, Adelaide, South Australia; Bonner Harris Mumby, Gosport, Hants; Forbes Robertson Mutch, Udry; Joseph Needham, London; William Henry Neilson, Bath; Henry Tolver Preston, Bournemouth; Arthur Purkiss, London; George Rae, M.A., Aberdeen; Archibald Reid, Glenbucket; Charles Reid, Auchindoir; William Reid, Beaulieu; George Jolly Shand, Aberdeen; Charles Carter Shepherd, Barbadoes; David Skinner, M.A., Inverurie; Ernest Barratt Smith, London; James Murray Smith, Forfar; Frederick Henry Spooner, Plymouth; William Stericker, Brompton, Yorks; William Tawse, Logie-Coldstone, Aberdeenshire; George Taylor, Ladiesford, Tyrie; Lavington Grey Thompson, Tasmania; Henry Thomson, Aberdeen; Winckworth Tonge-Smith, London; John Lawrence Van-Geyzel, Ceylon; James Hutchison Walker, M.A., Peterhead; John Coatsworth Watson, Barnard Castle; George Alexander Wilson, Huntly.

THE DEGREE OF C.M.

Lewis D. Alexander, George Arthur Batchelor, Ernest Brumwell, Alfred Henry Burton, John Kerr Butter, William Clarke, Thos. Joseph Compton, George Coutts, Morgan Davies, Arthur Symons Eccles, Heber Dowling Ellis, Frederick John Fehrsen, William Balfour Fergusson, Ernest Field, Donald Manson Fraser, Francis Carteret Gayton, Heneage Gibbes, Charles Glass, Alfred Paul Hart, Charles Hoar, Ho Kai, George Alexander Legge, Charles Low, Alfred de Courcy Lyons, Peter William Macdonald, William Mackie, William Adam Michie, James Thomas Mitchell, Bonner Harris Mumby, Forbes Robertson Mutch, Joseph Needham, William Henry Neilson, William O'Neill, Henry Tolver Preston, Arthur Purkiss, George Rae, Archibald Reid, Charles Reid, William Reid, George Jolly

Shand, Charles C. Shepherd, David Skinner, Ernest Barratt Smith, James Murray Smith, Frederick Henry Spooner, William Stericker, William Tawse, George Taylor, Lavington G. Thompson, Henry Thomson, Winckworth Tonge-Smith, John L. Van-Geyzel, James H. Walker, John C. Watson, George Alexander Wilson.

Of the above-named candidates, Joseph Needham, David Skinner, M.A., and James Hutchison Walker, M.A., received their degrees in Medicine and Surgery with highest academical honours; and George Coutts, Morgan Davies, Donald M. Fraser, M.A., Arthur Purkiss, Charles Carter Shepherd, and Fredk. H. Spooner received their degrees in Medicine and Surgery with honourable distinction. The John Murray Medal and Scholarship was equally divided between David Skinner, M.A., and James H. Walker, M.A., as the most distinguished graduates of their year. The thesis by Joseph Needham was considered deserving of high commendation. The theses by Donald M. Fraser, M.A., David Skinner, M.A., and James H. Walker, M.A., were considered deserving of commendation. At the same time Alexander Hill Griffith was certified as having passed all the examinations, but did not graduate; and the following are now declared to have passed part of their examinations:—

Wm. Milne Anderson, Francis Gerald Anthonisz, Alexander T. Arthur William Beddie, Henry Brine Blunt, Alexander Boswell, James Bremner, Alfred Brown, George Henry Burford, Algernon A. Cohen, John Cowie, Wm. Deans, John Durno, Chas. A. Faulkner, Jas. Thomson Fraser, Wm. Fraser, Arthur Henry Fretz, Jas. Hitchcock, Chas. A. Ironside, Jas. Lawson, James Leith Leslie, Adam C. Lyon, Alfred Alexander Mackie, Thomas Marsden, John Masson, Harry Michie, James Millar, Alexander Milne, Alexander Nicol, Felix Oorloff, Arthur Lodge Patch, James B. K. Robb, Alexander Robertson, Frederick William Robinson, James F. Ruxton, Thomas Alexander Sellar, George Shirres, Robert Soutar, John Shepherd Spence, Charles William Thiele, Thomas Pickthorn Thomson, Thomas F. Vaisey, John Walker, Christopher St. J. Wright, Martenz James Wright.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the examination held on July 21 and following days, the under-named gentlemen having passed their final examination, and having made and subscribed the declaration, were admitted Licentiates of the College, viz.:—

Edward F. S. Barry, Danby Browne, Samuel Cairns Browne, John Crimmin, John James Curran, Henry Cusack, Henry Jones Davis, Abraham Addison Hargrave Deane, William Deane, Samuel Ernest de Lisle, William Henry Delmege, Francis Joseph Doyle, William Dugdale, Robert Charles Garde Durbin, John Augustine English, William Henry Bett Evatt, William Fetherstonhaugh, Thomas Finlay, Charles Burke Fafney, Charles Henry Hartt, Harry Chalmers Hudson, Michael Kedan, Patrick Joseph Austin Kelly, Michael Joseph Kelly, Michael William Kerin, George Mark King, George Robert Lawless, Frederick William Lewis, Robert Charles Lyle, William Henry Christopher Macartney, Patrick Maguire, Lucas Alfred Middleton, Adam Mitchell, Thomas Beatty Moffitt, John Neill, Cornelius O'Brien, Arthur Patrick O'Connor, William O'Donnell, Thomas William Parker, Bartholomew Purdon Philpot, George Reed, Daniel Ryan, George Pigott Rogers, John Semple, Edmund Shackleton, Frederick Thomas Skerrett, Michael Smith, George Frederick Alexander Smythe, Frederick Charles Stevenson, Thomas Cathcart Taylor, Horace Robert Townsend, George Burbridge White, William Owen Walsley, and William Robert Minchin Young.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 14:—

Ballance, Charles Alfred, Stanley Hospital, Lower Clapton.
David, William, Rhondda Valley, Glamorganshire.
Davies, Arthur Mercer, Cymmer, Pontypridd.
Davies, Evan Naunton, 2, Barnard's-inn, E.C.
Davies, John Morgan Lloyd, Bank House, Cardigan.
Hoskyn, Donald Templeton, Birchington-road, Kilburn.
Hooley, Arthur, Heaton Chapel, Cheshire.
Parette, James, Lirhowy Iron Works.
Vaz, Jacinto Caetau, Bombay.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Collier, William, Sheffield Medical School.
Fordham, Alfred, London Hospital.
Taylor, Benjamin Robert Archer, Guy's Hospital.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

LAKING, FRANCIS HENRY, M.D., to be Surgeon-Apothecary to the Household of H.R.H. the Prince of Wales.

NAVAL AND MILITARY. ETC., APPOINTMENTS.

ADMIRALTY.—Staff-Surgeon Pierce Blackader Mansfield, M.D., has been promoted to the rank of Fleet Surgeon in her Majesty's Fleet, with seniority of April 4, 1879.

WAR OFFICE.—Surgeon-Major George Banks Floyer Arden retires on half-pay with the honorary rank of Deputy Surgeon-General.

BIRTHS.

- DUKE.—On August 18, at Fairley Villa, Putney, S.W., the wife of Stephen Duke, M.D., of a daughter.
- FITZGERALD.—On August 16, at Twerton-on-Avon, Bath, the wife of D. L. Fitzgerald, M.D. T.C.D., of a daughter.
- LAWSON.—On August 14, at Horse Grove House, Tunbridge Wells, the wife of George H. Lawson, M.D., late of New York, of a daughter.
- RICHARDSON.—On August 13, at Castle-terrace, Berwick-on-Tweed, the wife of Henry Richardson, M.D., Fleet-Surgeon R.N. (retired), of a daughter.
- SIMON.—On June 27, at Singapore, Straits Settlements, the wife of M. F. Simon, L.R.C.P. Lond., Colonial Surgeon, of a son.
- SMITH.—On August 10, at Abberleigh House, Edgbaston, the wife of Gilbert Smith, F.R.C.S.E., of a daughter.
- YARROW.—On August 13, at 87, Old-street, E.C., the wife of G. E. Yarrow, M.D., of a daughter.

MARRIAGES.

- ARCHIBALD—KIDSTON.—On August 13, at 24, Victoria-place, Stirling, N.B., John Archibald, M.B., F.R.C.S.E., of Brixton, to Evelyn Howie, youngest daughter of the late R. A. Kidston, of Stirling.
- ASHTON—TIFFEN.—On August 14, at St. James's, Piccadilly, Arundell Mackenzie Ashton, of Highfield, Cheshire, to Mary Elizabeth, only daughter of Robert Tiffen, M.D., of Wigton, Cumberland.
- BOWES—BUTLIN.—On August 14, at Duston, Northamptonshire, J. Ireland Bowes, M.R.C.S., Assistant Medical Superintendent of the Northampton County Asylum, to Mary Sophia, second daughter of W. Butlin, Esq., of Duston House, Northampton.
- COOPER—COWELL.—On August 12, at St. George's Church, Stonehouse, Devon, Astley Cooper, M.R.C.S., Fleet-Surgeon R.N., to Louisa Esther, youngest daughter of the late Colonel Henry Clayton Cowell, 1st Royals, and of Mutley Park House, Plymouth.
- HANDFORD—GRANTHAM.—On August 19, at Burgh-le-Marsh, Lincolnshire, the Rev. George T. Handford, M.A., of Christ College, Cambridge, eldest son of Thomas Handford, M.R.C.S. Eng., of Atherstone, to Maria Elizabeth, eldest daughter of the late John Hotchin Water Grantham, of Burgh-le-Marsh.
- LEAROYD—MITCHELL.—On August 14, at Glasgow, Percy A. Learoyd, youngest son of the late James Learoyd, Esq., of The Grove, Huddersfield, to Mary Stuart, only daughter of Alexander Mitchell, M.D., of Glasgow.
- THOMPSON—SMITH.—On August 2, at South Kensington, Henry Thompson, Esq., Dibrughur, Upper Assam, to Ellen, fourth daughter of Samuel Smith, M.D., of Carlton Colville.

DEATHS.

- BURKE, WILLIAM M., M.D., Registrar-General, at 88, Stephen's-green, Dublin, on August 13, aged 60.
- DENTON, JOSEPH, M.R.C.S., at Leicester, on August 12, in his 85th year.
- KITCHENER, MARIE LOUISE, the wife of Thomas Kitchener, M.D., at 4, New King-street, Bath, on August 13.
- STANTON, JOHN, M.D., at 9, Montagu-square, W., on August 12, in his 69th year.
- THOMASON, WILLIAM JAMES, M.D., Staff Surgeon R.N., suddenly, at Panama, on board H.M.S. *Osprey*, on August 9, aged 39.
- TREVOR, SALUSBURY LLOYD, M.R.C.S., at San Antonio, Peru, on June 28.
- WILKINSON, HENRY, second son of F. Eachus Wilkinson, M.D., of Sydenham, at Surbiton, on August 16.
- WOOLRIDGE, EDWARD, M.D., at Effingham Lodge, Witheane, Brighton, on August 13, aged 62.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

- DREADNOUGHT SEAMEN'S HOSPITAL, GREENWICH, S.E.—House Physician. Candidates must be Members or Licentiates of the Society of Apothecaries, Fellows or Members of the Royal College of Surgeons of England, unmarried, and under thirty years of age. Applications, with particulars of professional qualifications, and references as to moral character, to Henry C. Burdett, Secretary, on or before September 10.
- DREADNOUGHT SEAMEN'S HOSPITAL, GREENWICH, S.E.—House-Surgeon. Candidates must be Members or Fellows of the Royal College of Surgeons of England, unmarried, and under thirty years of age. Applications, with particulars of professional qualifications, and references as to moral character, to Henry C. Burdett, Secretary, on or before September 10.
- JERSEY GENERAL DISPENSARY.—A Resident Visiting and Dispensing Medical Officer, possessing the double qualification, and unmarried, is wanted for November 1. Canvassing vitates election. Election probably early in September. Address, Honorary Secretary of Jersey General Dispensary, Oak-walk, Jersey.
- NORTHAMPTON GENERAL INFIRMARY.—Physician. Candidates must be Doctors of Medicine of one of the universities of the United Kingdom, and Fellows or Members of the Royal College of Physicians of London, and not under twenty-five years of age. Applications and diplomas, accompanied by testimonials of professional ability, to the Secretary, on or before August 26.

UNION AND PAROCHIAL MEDICAL SERVICE.

** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

- Horncastle Union.—The Revesley District is vacant; area 17,180; population 3086; salary £44 per annum.
- Wigton Union.—The Caldbeck District is vacant; area 29,280; population 2490; salary £14 per annum.

APPOINTMENTS.

- Hay Union.—Edward A. Applebe, L.R.C.P. Edin., L.F.P.&S. Glasg., to the Radnorshire District.
- City of London Union.—George E. Miles, M.R.C.S. Eng., as Assistant Medical Officer and Dispenser at the Infirmary.
- Atcham Union.—Wm. W. Elmslie, L.F.P.&S. Glasg., L.S.A. Lond., to the Alberbury District.

THE SOCIETY OF APOTHECARIES, LONDON.—The competition for the prizes offered by the Society of Apothecaries to young women for proficiency in botanical science took place at the hall in Blackfriars, on Wednesday, June 18, under the control of the Rev. Miles J. Berkeley, M.A., F.R.S., F.L.S., etc. At the first meeting twenty-seven young women attended, most of whom were educated in London: all were under twenty years of age. The examination consisted of written questions on the structure and physiology of phænogamous plants, and occupied four hours. The result was pronounced by the examiner very satisfactory. The final competition was held at the Society's garden at Chelsea, on Monday, June 23, when nineteen candidates attended, and were examined as before, in writing, by the Rev. Mr. Berkeley, in the several cryptogamic orders, and in microscopic demonstration. The papers written on these subjects were, as before, of great merit. Certificates and the prizes were finally awarded as follows:—The Society's Gold Medal—Jane Whittaker, aged nineteen, Whiteland's College, Chelsea, S.W. The Society's Silver Medal—Elizabeth Follmetina Klaassen, aged eighteen, North-side, Chepstow-road, Croydon. Certificates of merit were awarded to eight candidates, five of whom were placed in the First Class and three in the Second Class. In the First Class—Edith Allen, 40, Regent's-park-road, N.W.; Edith Susanna Benger, 68, Oxford-street, W.; Jessie Harriet Thirza Day, 27, Harrington-square, Regent's-park, N.W.; Elizabeth Follmetina Klaassen, North-side, Chepstow-road, Croydon; Mary Isabella Webb, West-hill Lodge, Lower-terrace, Hampstead, N.W. In the Second Class—Emma Gabbitas, Whiteland's College, Chelsea, S.W.; Alice Harrison, Whiteland's College, Chelsea, S.W.; Ada Elizabeth White, 70, Albert-street, Regent's-park, N.W.

SOLUBLE QUININE.—We some time ago noted a new preparation of quinine: it may not be amiss to re-direct our readers' attention to the subject. The preparation, which consists of a combination of hydrochlorate of quinine and urea, has been described by Drygin under the title of "Chininum bimuriaticum carbamidatum," and promises, owing to its great solubility in water, to be of value, especially for hypodermic injections. It is prepared by mixing twenty parts of hydrochlorate of quinine, in a porcelain vessel, with twelve parts of pure hydrochloric acid (specific gravity 1.07), and filtering. Three parts of pure urea are added to the filtrate and dissolved with a gentle heat. The liquid is placed in a cool place and deposits crystals, which, after twenty-four hours, are drained in a glass funnel and dried. They are white and deliquescent, and very soluble in water. An aqueous solution may be kept some time without undergoing any change except that it assumes a brownish tint. For subcutaneous injection a 50 per cent. solution, each cubic centimetre of which contains about 0.37 grammes of the quinine salt, may be used. From 0.5 to 3.3 cubic centimetres may be injected, the best situation being the skin of the back. The local reaction is trifling, and abscesses have never been observed at the seat of puncture. Large doses occasionally cause headache, giddiness, ringing in the ears, and vomiting, in the same way as quinine. The antipyretic action of the drug is decided in all cases where quinine is generally indicated, especially in intermittent fever. It is particularly recommended for hypodermic use—(1) for sensitive patients who have an intense aversion to swallowing quinine; (2) where quinine is indicated in spite of gastric derangement; (3) for children; and (4) in poor and hospital practice, since much smaller quantities of it are required than if given by the mouth.

HYPODERMIC USE OF FOWLER'S SOLUTION IN CHOREA.

—Dr. Perroud, lecturer on diseases of children in the Lyons Faculty, has treated cases of chorea, since 1875, by hypodermic injections of arsenic, and M. Gavin in a recent thesis gives an account of thirty-three of the cases so treated. Four or five drops of pure Fowler's solution are injected by means of a Pravaz syringe, the region chosen being that where the cellular tissue is least dense and the nervous fila-

ments are fewest. Generally an injection is practised every second or third day. All the cases were females aged from six months to fourteen years, and among them were examples of all the forms of chorea. This method is stated to be preferable, because it avoids all gastric disturbance, and the cure is generally obtained more rapidly, while the dose is very small. There is little or no local irritation induced; but in some cases intolerance of arsenic occurs, although this is rare in children. As a general rule, rapid amelioration occurs, flesh being at the same time gained, while the solid matters secreted by the kidneys diminish. In sixteen of the cases the chorea was cured after a mean duration of thirty-two days of treatment, about eighteen injections having been employed. Of thirteen others submitted to these injections, but to various other modes of treatment as well, ten recovered, a longer period, however, being required. These thirteen cases were almost all of them old or relapsed choreas, so that, contrary to the assertions of Aran, Ziemssen, and others, arsenic seems to succeed better in recent and simple than in old and inveterate cases.—*Rev. Méd.*, July 19 (from *Lyon Méd.*).

THE DIPHTHERIA PRIZE.—The Empress of Germany has offered, through Prof. v. Langenbeck, a prize of 2000 marks (£100) for the best essay on diphtheria. The following eminent professors are appointed judges, viz.:—Klebs of Prague, Liebreich and Virchow of Berlin, Nägeli and Oertlich of Munich, and Thiersch of Leipzig. The title is "On the Nature of Diphtheria, and the Conclusions that are to be drawn from a recognition of this for the Treatment of the Disease." The prize will only be adjudged for a work in which new facts of importance on the nature of the disease, and especially upon its spread and the means of preventing this, are demonstrated. Essays, in German, French, or English, must be forwarded to Prof. v. Langenbeck, Berlin, 3, Roonstrasse, N.W., before December 15, 1880, accompanied by mottoes and sealed envelopes containing the names of the authors. The award will be made known at the first meeting of the Congress of German Surgeons in Berlin, in April, 1881.

DEATH DURING EXTRACTION OF A TOOTH.—Dr. Poulet, in his "Traité des Corps Etrangers," mentions two cases in which death resulted from the fall of teeth into the larynx during extraction. In both these cases the operations were performed under the protoxide of nitrogen. A short time since a sudden death occurred to a child seven years old, at Lyons, the dentist having removed a molar by means of the American forceps, from the grip of which it escaped during the struggles of the patient. During a deep inspiration it entered the larynx, and the child died instantly. This case may be compared with one which occurred to Prof. Rigaud, who had a child die under his hands while he was attaching the pins for a hare-lip. At the autopsy a milk-tooth was found between the lips of the glottis, which it completely obstructed.—*Lyon Méd.*, August 10.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Burlesque.—Peroxide of hydrogen won't hurt you.

Dr. Young, Hong-Kong.—Received with thanks.

M.B.C.S.—The Scientific and Medical Association of Germany will commence its fifty-first meeting, at Baden-Baden, on September 16 or 18, lasting till the 20th.

G., Berks.—The Cameron Prize, awarded on the 1st inst. to Professor Paul Bert, of Paris, at the medical graduation in connexion with Edinburgh University, for his researches in experimental physiology, is the first award of the prize, which was founded a year ago, and is to be conferred annually on that member of the medical profession who shall, during the year preceding the award, have made the most important addition to therapeutics.

The New Clayton Hospital, Wakefield.—This Hospital was opened a few days ago. It is planned on the pavilion system, with accident and special wards, operating-theatre, day-rooms, and offices. The administrative department is placed in the centre of the building. The Hospital is constructed, at present, to accommodate fifty-two patients, with provision for future extension. Special attention has been paid to the sanitary details of the buildings. The total cost, including fittings, will be about £20,000.

The Hospital for Consumption, Brompton.—At the last quarterly court, legacies were announced to the amount of about £1000 since the previous meeting. The number of in-patients admitted since May 29 was 132, discharged 149, died 18, new out-patients 2160.

Paupers and their Holidays.—The Chester Board of Guardians, in consequence of several of the paupers belonging to the workhouse having got drunk when out for their holiday, and returned to the house in that state, or been taken into custody by the police, have resolved to withdraw this holiday privilege, except under rare circumstances, or without the previous permission of the Board having been obtained for it. The paupers, it appears, got some clue as to what was going on at the meeting of the Guardians, and held a meeting themselves; and a large deputation of them, men and women, waited on the Board, and demanded their "day out." They were informed of the resolution adopted, when the leader of the deputation remarked that "he did not think the Board had any power to curtail the privileges of the paupers," and said he should write to the Local Government Board on the subject. Several paupers inquired if they could discharge themselves, and being answered in the affirmative, they left the room, and subsequently the workhouse.

Street Gullies.—A memorial was recently presented at a meeting of the Strand District Board from some inhabitants in Crown-street, Soho, complaining of the nuisance arising from the gully there. It was stated that several cases of fever had occurred in the street, and it was suggested they were caused by the nuisance in question. Several previous complaints had been made on the subject, and the Board was requested to take immediate action to remedy the evil. From a report by the medical officer on the nuisance it appears that the gully had, after a previous remonstrance, been disinfected with carbolic acid by the officers of the Board, but he adds: "Until some system be adopted throughout London for a complete and sufficient ventilation of sewers generally, some relief ought to be afforded in such cases as the present, by trapping the gully gratings adjoining the foot pavements, and substituting for them a ventilation in the centre of the roadway opposite the gully and directly over the sewer itself." The Clerk, however, pointed out that any board trapping gullies was liable to be served with an indictment. The matter was finally referred, for consideration, to the Works Committee.

Fever Fatalities in a Prison.—An inquest was held lately on the body of a young woman who died in Shrewsbury Gaol of typhoid fever while awaiting her trial, under circumstances which, *prima facie*, point to an unhealthy state of the prison as the probable cause of the disease. The deceased was committed on May 10, charged with theft, and, after being in gaol upwards of a month, fell ill with the fever, from which she died. The medical officer of the prison "could not account for the death," and the Medical Officer of Health for the borough stated that "he had not been in the prison for more than two years, and he thought there ought to be a thorough sanitary investigation of the premises." It appears that out of nine deaths that have occurred in the prison in the last two or three years, no fewer than six have been from typhoid fever. The jury returned a verdict of death from natural causes, appending to it the following suggestion:—"That, taking into consideration the number of deaths that have resulted in the prison from typhoid fever during the last three years, they suggest that a searching inquiry be at once instituted by the Home Secretary into the cause thereof, and that the Medical Officer of Health for the borough of Shrewsbury be requested to report on the state of the prison."

A Bone-boiling Nuisance.—The case of the Malton Urban Sanitary Authority v. the Malton Farmers' Manure Company, heard before the Exchequer Division Court during last sittings, was an appeal from the decision of magistrates sitting in petty sessions at Norton, in Yorkshire, dismissing the information laid by the appellants against the Company under Sec. 114 of the Public Health Act, 1875, 38 and 39 Vict., cap. 55. The respondents carried on the business of bone-boiling in sulphuric acid 200 yards from the Malton Station on the North-Eastern Railway. The effluvia arising therefrom caused nausea and other symptoms; and though the evidence was insufficient to show that the general health of the district had suffered, yet sick persons, if they breathed it, would suffer, though not permanently. The questions for the Court were—Was it necessary that the appellants should prove that the nuisance was injurious to health? and, secondly, Had they done so by the evidence adduced? It was contended that the case clearly came within the Act, as the words ran, "a nuisance or injurious to the health of any of the inhabitants of the district." On the other hand, while admitting that the premises in question might be a nuisance at common law, and the subject of an indictment, it was suggested that they did not come within the meaning of this Act. The Court allowed the appeal, with costs, holding that the nuisance was within the Act. An application that the case be remitted to the magistrates, as the respondents had not yet been heard, was granted.

Urban and Rural Sanitary Works.—A new Gloucester pauper lunatic asylum is about to be erected on the Barnwood Mill Estate. It is intended only to erect, at present, the administrative block and such portions of the building as may be immediately required for patients.—The Town Council of Accrington has decided to apply to the Local Government Board for sanction to borrow £69,000 for improvements which refer to 117 streets, having a total length of ten miles.—The

Metropolitan Board of Works have declined to adopt the suggestion of Mr. F. Thompson, and his offer to bear the entire cost of covering in the greater portion of Leicester-square.—The new Edinburgh water-works erected at Moorfoot Hills have been formally opened by the Lord Provost. The storage capacity of these works is now increased to about two billions and a half of gallons. The principal reservoir, which is about twelve miles from the city, has storage capacity for 117,000,000 gallons.—The improvement of the Grove "Well Walk," adjoining Hampstead Heath, has been carried out upon a plan agreed to by the Wells Charity trustees. An inclined plane, substituted for a number of steps at one end of the walk, will be a great advantage to invalids using "bath chairs." The chalybeate spring is running more freely than for years, and the water has been safely protected from drainage of the adjoining houses.—The Town Council of Brighton has adopted a resolution which had been come to by the Sanitary Committee, to provide a sanatorium in the town for the purpose of receiving persons suffering from infectious or contagious diseases. A committee has been appointed to consider a suitable site for the hospital, the plans for the building, and other arrangements.—The Torquay Local Board has decided to make the supply of water to the town constant, instead of intermittent as hitherto.—Inspectors from the Local Government Board have respectively held inquiries for sanctioning the Halstead Local Board to borrow £7000 for sewerage works; and the Margate Local Board to borrow £60,000 for the purchase of the works of the Margate Waterworks Company, and a further sum of £7000 for street improvements.

BOOKS AND PAMPHLETS RECEIVED—

Jas. B. Russell, B.A., M.D., Lectures on the Theory and General Prevention and Control of Infectious Diseases—Dr. Gaston Decaisne, Des Paralyties Corticales du Membre Supérieur, Monoplégies Brachiales—James Tunstall, M.D., M.R.C.P., The Bath Waters: their Uses and Effects in the Cure and Relief of various Chronic Diseases—George Edward Walker, F.R.C.S., Essays in Ophthalmology—Health Lectures for the People, delivered in Manchester, 1876-1879, vol. ii.—William J. Thoms, F.S.A., Exceptional Longevity: its Limits and Frequency—E. Brasseur, Etudes de Chirurgie Dentaire.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Révue Médicale Française et Etrangère—El Siglo Médico—Louisville Medical News—Nature—Boston Medical and Surgical Journal—La Crónica Médica—Révue d'Hygiène et de Police Sanitaire—American Journal of Otolaryngology—American Bookseller—Centralblatt für Gynäkologie—Students' Journal and Hospital Gazette—Nordiskt Medicinskt Arkiv—New York Medical Journal—American Practitioner—L'Union Médicale d'Orient.

COMMUNICATIONS have been received from—

Dr. H. THOMPSON, London; THE REGISTRAR OF APOTHECARIES' HALL, London; Dr. BERNARD, Liverpool; Dr. KHORY, Bombay; Dr. TOMKINS, Monsall; Dr. WOLFE, Glasgow; Mr. C. J. CULLINGWORTH, Manchester; Dr. BYROM BRAMWELL, Edinburgh; Mr. FLOOD PAGE, Sydenham; Dr. COTTER, Ballincollig; Dr. MOORE, Dublin; Messrs. SALT and SONS, Birmingham.

APPOINTMENTS FOR THE WEEK.

August 23. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

25. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

26. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopaedic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

27. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

28. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

29. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 16, 1879.

BIRTHS.

Births of Boys, 1359; Girls, 1343; Total, 2702.
Average of 10 corresponding years 1869-78, 2279.3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	723	626	1349
Average of the ten years 1869-78 ...	771.5	706.9	1478.4
Average corrected to increased population ...	...	...	1532
Deaths of people aged 80 and upwards ...	...	...	44

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West ...	561359	1	8	5	2	3	...	3	2	23
North ...	751729	...	18	7	...	6	...	1	2	31
Central ...	334369	...	4	...	1	5	...	1	...	12
East ...	639111	...	15	11	1	15	...	3	...	34
South ...	967692	3	13	22	1	8	...	8	...	27
Total ...	3254280	4	58	45	5	37	...	16	4	127

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29.740 in.
Mean temperature ...	...	...	...	...	...	63.1°
Highest point of thermometer ...	...	...	...	...	...	79.7°
Lowest point of thermometer ...	...	...	...	...	...	45.9°
Mean dew-point temperature ...	...	...	...	...	...	57.1°
General direction of wind ...	...	...	...	...	...	Variable.
Whole amount of rain in the week ...	...	...	...	...	...	0.03 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 16, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Aug. 16.	Deaths Registered during the week ending Aug. 16.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		Weekly Mean of Mean Daily Values.	In Inches.	In centimetres.
London ...	3620868	43.0	2702	1349	79.7	45.9	63.1	17.23	0.03	0.08
Brighton ...	105608	44.9	65	21	77.0	49.3	62.9	17.17	0.47	1.19
Portsmouth ...	131821	29.4	76	42	...	...	...	...	...	...
Norwich ...	85222	11.4	47	24	73.5	49.5	61.4	16.33	0.06	0.15
Plymouth ...	74293	53.3	54	12	71.0	55.0	60.9	16.06	0.62	1.57
Bristol ...	209947	47.2	164	75	...	...	...	...	...	...
Wolverhampton ...	75100	22.1	52	16	76.8	44.5	59.2	15.11	1.58	4.01
Birmingham ...	388834	46.3	275	122	...	...	...	...	...	...
Leicester ...	125622	39.3	112	50	...	...	...	...	...	...
Nottingham ...	169396	17.0	127	64	78.0	41.8	61.8	16.56	0.20	0.51
Liverpool ...	538333	103.3	421	223	75.9	53.9	60.5	15.84	1.52	3.86
Manchester ...	361819	84.3	251	151	...	...	...	...	...	...
Salford ...	177849	34.4	143	66	...	...	...	...	...	...
Oldham ...	111318	23.9	76	39	...	...	...	...	...	...
Bradford ...	191046	26.5	112	64	72.5	45.4	59.8	15.45	0.13	0.33
Leeds ...	311860	14.5	235	100	76.0	46.0	59.6	15.34	0.25	0.63
Sheffield ...	297138	15.1	225	89	76.0	46.0	59.0	15.00	0.07	0.18
Hull ...	146347	40.3	132	48	...	...	...	...	...	...
Sunderland ...	114575	41.4	101	37	71.0	50.0	58.0	14.44	0.51	1.30
Newcastle-on-Tyne ...	146948	27.4	111	55	...	...	...	...	...	...
Edinburgh ...	228075	53.9	136	71	78.0	45.0	58.1	14.50	0.22	0.56
Glasgow ...	578153	95.8	371	167	74.0	44.0	60.6	15.90	0.15	0.38
Dublin ...	314666	31.3	202	167	...	...	...	...	...	...
Total of 23 Towns in United Kingdom	8502896	33.6	6190	3052	79.7	41.8	60.4	15.78	0.45	1.14

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.74 in. The highest reading was 29.88 in. on Thursday evening, and the lowest 29.41 in. at the end of the week.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURES ON DISEASES OF THE HEART IN CHILDHOOD.

DELIVERED AT THE LONDON HOSPITAL.

By **ARTHUR ERNEST SANSOM, M.D. Lond., F.R.C.P.,**
Assistant-Physician to the London Hospital, and Senior Physician to the
North-Eastern Hospital for Children.

LECTURE I.

CONGENITAL AFFECTIONS.

GENTLEMEN,—In the short course of clinical lectures which it falls to my lot to deliver during the summer session, I think I shall best fulfil my duty by directing your attention to a class of cases which has come more particularly under my notice since I last addressed you. It is rather the lessons to be derived from the study of a number of actual clinical examples than the literature of any disease which will occupy our thoughts, though of course I must incidentally employ the latter to illustrate the former. We may not be able to elicit any new facts to add to the storehouse of medical knowledge, but nevertheless I hope that we may be able usefully to supplement the lessons which are given in extant works. It is unnecessary for me to urge that in the field of practice wherein most of you will, in the future, occupy yourselves, you will find the recognition and management of the maladies of children to be of very high importance. It is to a section of such maladies that I now turn, and, as a text for my observations, I shall chiefly take the records of cases which have come under notice in this hospital, and a neighbouring one exclusively devoted to children's diseases.

It is generally supposed that diseases of the heart are uncommon in children. Only a few years ago they were ignored, or treated very cursorily in the text-books on diseases of early life. Rilliet and Barthez were first to rescue them from this oblivion; and Dr. West followed, giving his own experience in the careful and systematic manner which characterises all parts of his treatise. Bouchut, in 1867, wrote that in the then state of science it was impossible to give the history of heart disease in children with much detail; he had observed several cases of alterations of the valves, but, except as regarded the difficulties of diagnosis, he felt entitled to say that the stethoscopic phenomena were the same in the child as in the adult. (a) Dr. West's account of heart disease in children (b) is a sufficient commentary on this statement. It shows how valuable are the lessons to be learnt in this field of observation—a field which the treatises on heart diseases have scarcely endeavoured to explore. During the last few years the physical examination of the heart has become more systematic and precise, and it may not be unfruitful to attempt to read some of the lessons obtained from the observation of a considerable number of actual examples. Making a rough estimate, I find that the proportion of cases of heart disease, as compared with those of all other diseases presented at the out-patient department of the North-Eastern Hospital for Children, is three in 500. I have no doubt these figures underrate the prevalence of the disease, because in some cases the cardiac region must escape exploration, and the existence, and even the rise and progress, of heart disease may occur without the manifestation of any symptoms betraying such probability. Its position, however, among the serious diseases of childhood (diseases of infection being excluded) is very different, as shown by the fact that of 227 medical in-patients admitted during 1876, thirty-eight manifested disease of the heart. I propose now to consider the records of 136 cases of heart disease in children of the age of twelve years and under; these records have been, in my opinion, taken with sufficient care to justify certain general deductions. For the notes of about forty cases I am indebted to my colleagues; the remainder have been under

my own care and observation. I shall illustrate certain points by reference to many other cases which have been excluded, on account of partial incompleteness, from the general list.

As regards sex, I find that the cases observed included 59 males and 77 females. So the prevalent view is confirmed, that heart disease is much more common in little girls than in boys. The ages at which the cases were presented are thus shown:—First year of life, 4 cases; second year, 5 cases; third year, 5 cases; fourth year, 7 cases; fifth year, 8 cases; sixth year, 15 cases; seventh year, 14 cases; eighth year, 11 cases; ninth year, 17 cases; tenth year, 18 cases; eleventh year, 23 cases; twelfth year, 9 cases. It is thus seen that the proclivity of children to manifest the symptoms of heart disease which call for treatment increases almost steadily from year to year until the age of eleven years; in the following year of life there seems to be a fall in the figure of prevalence.

The division of the subject to which I shall first call attention includes congenital affections; and this subject I shall consider now from the point of view of clinical diagnosis. The examples which come before us can, I think, be best classified under the following sections:—1. Cases of congenital anomaly presenting no murmurs. 2. Congenital anomaly with murmur *not* at the pulmonary orifice. 3. Congenital anomaly with pulmonary murmur. 4. Complications of endocarditis.

I. In the first section (*congenital anomaly without murmur*) the diagnosis is arrived at from the evidence of the existence of *cyanosis*. In the list of cases which I have here brought forward there are two cases in which cyanosis existed without record of murmur; but I have met with several cases in which murmur has been completely absent. This is in perfect accord with the experience of other observers. In such conditions, I think, we are justified in arriving at the diagnosis that there is patency of the foramen ovale. It is distinctly proved that this can exist without giving rise to murmur. Dr. Hayden says that he has not met with a single example of a murmur which was clearly traceable to this anomaly as its cause. (c) In thirteen cases examined by Dr. J. W. Ogle, in which there was more or less patency of the foramen ovale, murmur was not noted in a single instance. We were unable to follow up one case in my list to its termination, for it migrated with its parents to Holland. It came under notice at the age of five weeks, and, according to our information, died when six or seven months old. The other, aged two years and three months, is still under observation.

II. We turn now to the second section, comprising cases presenting murmur which we consider *not* to be generated at the pulmonary orifice. In this series are four cases. Two were twins. In none of them was there complete cyanosis, but venous turgescence with variable blueness in two, whilst the other was noted only as presenting signs of anæmia. In the first case (*Maud F.*, aged one year and two months, one of the twins) there was great pallor, and blueness of surface was noted only when the child was excited; the veins were generally dilated. A soft systolic murmur was heard over a limited area internal to the apex-beat and in the third interspace, the sounds of the heart heard in the axilla being quite uncomplicated. In the twin sister great pallor was noted, without obvious cyanosis; a soft systolic murmur was heard just to the inner side and a little above the nipple. On subsequent occasions the murmur could not be heard. Both these children manifested diarrhoea, but improved much under treatment. Unfortunately, owing to the migratory habits of the parents, after seven weeks of treatment they could not be traced. The third case, *George E.*, came under observation at the age of seven months. There was no facial cyanosis, but the finger-nails were blue. He had diarrhoea, thrush, and eczema. He manifested a loud systolic murmur heard over the whole præcordium, but most intense at a point internal to the position of the apex-beat; it was audible at the back, but less defined as the stethoscope travelled from the apex. This child only came once under observation. We heard that he died a fortnight afterwards. I consider that the murmurs heard in these cases indicate one of two pathological conditions—patency of foramen ovale, or incompleteness of inter-ventricular septum. I have said that with cyanosis in the absence of murmur we may conclude

(a) "Traité Pratique des Maladies des Nouveaux-nés, etc., et de la Seconde Enfance." Par E. Bouchut. Cinquième édition. Paris: Baillière, 1867.

(b) "Diseases of Infancy and Childhood." Sixth edition. London: Longmans, 1874.

(c) "Diseases of Heart and Aorta," 1875, page 784.

that there is communication between the auricles, but I by no means would imply that the presence of a murmur indicates the absence of interauricular communication. Cases proving that a murmur may exist with patency of the foramen ovale alone as its cause have been recorded by Dr. Markham, (d) Dr. B. Foster, (e) and Dr. Mayne. (f) Dr. B. Foster has, as regards one of his cases, carefully noted the characters of such murmur—it was systolic, heard loudest between the third and fourth ribs of the left side at their junction with the sternum; it was heard as high as the upper margin of the third rib, but was not heard at the apex. The murmur varied in intensity at different times. In Dr. Foster's second case the murmur accompanying the first sound was faint, and heard over a limited spot on a line with the lower edge of the third rib at its junction with the sternum. This murmur varied also in intensity, and occasionally gave only the idea of muffling of the first sound. In Dr. Mayne's case the bruit was systolic and localised at the sternal end of the left fourth costal cartilage. The late Dr. Tilbury Fox considered that a murmur due to patency of the foramen ovale should have a *presystolic* rhythm. That such may be the case has been demonstrated by Dr. George Johnson. (g) It is conceivable that in some cases the murmur may be systolic, in others presystolic: systolic when, from high pressure in the venous system, there is a current from right to left auricle (Dr. B. Foster's hypothesis), or when, from the *vis à tergo* of a powerful right ventricle, the current is conversely from left to right auricle; presystolic, when during the systole of an unusually strong left auricle there is a flow through the foramen into the right auricle. From a consideration of the area of audibility of the murmur in the cases of the twins I should conclude that with them there was patency of the foramen ovale. In the other case, though this might be concurrent, I should urge the probability of another cause—imperfection of the interventricular

of the heart is enlarged, and the impulse is heaving. There is no evidence of enlargement to the right of the sternum. Assuming my observation to be precise, that the murmur which I heard early in the case was located at the apex, I should be inclined to conclude that this was a case of imperfection of the interventricular septum, in which the edges of the foramen had in course of time become so smooth as to generate no murmur.

(To be continued.)

ADDRESS OF THE PRESIDENT OF THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

DELIVERED AT SHEFFIELD, WEDNESDAY, AUGUST 20.

By G. J. ALLMAN, M.D., LL.D., F.R.SS. L. and E., etc.,
Emeritus Professor of Natural History in the University
of Edinburgh.

It is no easy thing to find material suited to an occasion like the present. For, on the one hand, there is risk that a presidential address may be too special for an audience necessarily large and general, while, on the other hand, it may treat too much of generalities to take hold of the sympathies and command the attention of the hearers. It may be supposed that my subject should have been suggested by the great manufacturing industries of the town which has brought us together; but I felt convinced that a worker in only the biological sciences could not do justice to the workers in so very different a field. I am not, therefore, going to discourse to you of any of those great industries which make civilised society what it is—of those practical applications of scientific truth which within the last half-century have become developed with such marvellous rapidity, and which have already become interwoven with our everyday life, as the warp of the weaver is interwoven with the wool. Such subjects must be left to other occupiers of this chair, from whom they may receive that justice which I could not pretend to give them; and I believe I shall act most wisely by keeping to a field with which my own studies have been more directly connected. I know that there are many here present from whom I have no right to expect that previous knowledge which would justify me in dispensing with such an amount of elementary treatment as can alone bring my subject intelligibly before them, and my fellow members of the British Association who have the advantage of being no novices in that department of biology with which I propose to occupy you will pardon me if I address myself mainly to those for whom the field of research on which we are about to enter has now been opened for the first time. I have chosen, then, as the matter of my address to you to-night a subject in the study of which there has during the last few years prevailed an unwonted amount of activity, resulting in the discovery of many remarkable facts and the justification of many significant generalisations. I propose, in short, to give you in as untechnical a form as possible some account of the most generalised expression of living matter, and of the results of the more recent researches into its nature and phenomena. More than forty years have now passed away since the French naturalist, Dujardin, drew attention to the fact that the bodies of some of the lowest members of the animal kingdom consist of a structureless, semi-fluid, contractile substance, to which he gave the name of Sarcodæ. A similar substance occurring in the cells of plants was afterwards studied by Hugo von Mohl, and named by him Protoplasm. It remained for Max Schultze to demonstrate that the sarcodæ of animals and the protoplasm of plants were identical. The conclusions of Max Schultze have been in all respects confirmed by subsequent research, and it has further been rendered certain that this same protoplasm lies at the base of all the phenomena of life, whether in the animal or the vegetable kingdom. Thus has arisen the most important and significant generalisation

FIG. 1.

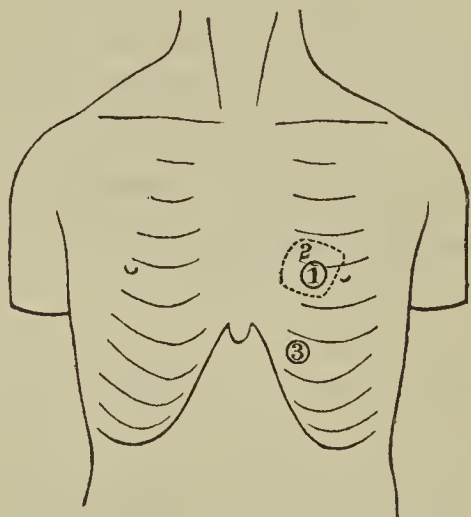


FIG. 1.—Showing localisation of systolic murmurs in cases of congenital cardiac anomaly in which there was no evidence of stenosis of pulmonary artery, the murmurs being probably due to patency either of foramen ovale or inter-ventricular septum. (The figures denote the cases.)

septum. I should base this opinion on the loudness, unvaryingness, and extent of conduction of the murmur. I now turn to the fourth case of this series. In this case, I think, there is more doubt as to the precise diagnosis of the pathological condition.

Wm. H. S., four years of age, came under my care with habitual cough and dyspnoea and occasional epistaxis. He had ailed since birth, and coughed since he was seven weeks old. He was blue even when a baby. There were signs of bronchitis. I noted a soft systolic murmur at the exact apex. I soon lost sight of the case, but my colleague Dr. Barlow has had the boy under treatment at the Hospital for Sick Children in Great Ormond-street. He has kindly sent me some observations. The child is now seven years old; has blue cheeks, lips, and ears; there is very slight clubbing of the finger-ends. There exists now no murmur; the left side

(d) *Transactions of the Pathological Society of London*, vol. viii., 1857, page 142.

(e) "Clinical Medicine," page 35. London: Churchill, 1874.

(f) *Proceedings of the Pathological Society of Dublin*, session 1847-48, page 35.

(g) *British Medical Journal*, March 9, 1878, page 333.

in the whole domain of biological science. Within the last few years protoplasm has again been made a subject of special study, unexpected and often startling facts have been brought to light, and a voluminous literature has gathered round this new centre of research. I believe, therefore, that I cannot do better than call your attention to some of the more important results of these inquiries, and endeavour to give you some knowledge of the properties of protoplasm and of the part it plays in the two great kingdoms of organic nature. As has just been said, protoplasm lies at the base of every vital phenomenon. It is, as Huxley has well expressed it, "the physical basis of life." Wherever there is life, from its lowest to its highest manifestations, there is protoplasm; wherever there is protoplasm, there, too, is life. Thus co-extensive with the whole of organic nature—every vital act being referable to some mode or property of protoplasm—it becomes to the biologist what the ether is to the physicist; only that, instead of being a hypothetical conception, accepted as a reality from its adequacy in the explanation of phenomena, it is a tangible and visible reality, which the chemist may analyse in his laboratory, the biologist scrutinise beneath his microscope and his dissecting needle. The chemical composition of protoplasm is very complex, and has not been exactly determined. It may, however, be stated that protoplasm is essentially a combination of albuminoid bodies, and that its principal elements are, therefore, oxygen, carbon, hydrogen, and nitrogen. In its typical state it presents the condition of a semi-fluid substance—a tenacious, glairy liquid, with a consistence somewhat like that of the white of an unboiled egg. (a) While we watch it beneath the microscope movements are set up in it; waves traverse its surface, or it may be seen to flow away in streams, either broad and attaining but a slight distance from the main mass, or else 'stretching away far from their source, as narrow liquid threads, which may continue simple, or may divide into branches, each following its own independent course; or the streams may flow one into the other, as streamlets would flow into rivulets, and rivulets into rivers, and this not only where gravity would carry them, but in a direction diametrically opposed to gravitation; now we see it spreading itself out on all sides into a thin liquid stratum, and again drawing itself together within the narrow limits which had at first confined it, and all this without any obvious impulse from without which would send the ripples over its surface or set the streams flowing from its margin. Though it is certain that all these phenomena are in response to some stimulus exerted on it by the outer world, they are such as we never meet with in a simply physical fluid—they are spontaneous movements resulting from its proper irritability, from its essential constitution as living matter. Examine it closer, bring to bear on it the highest powers of your microscope—you will probably find disseminated through it countless multitudes of exceedingly minute granules; but you may also find it absolutely homogeneous, and, whether containing granules or not, it is certain that you will find nothing to which the term organisation can be applied. You have before you a glairy, tenacious fluid, which, if not absolutely homogeneous, is yet totally destitute of structure. And yet no one who contemplates this spontaneously moving matter can deny that it is alive. Liquid as it is, it is a living liquid; organless and structureless as it is, it manifests the essential phenomena of life. The picture which I have thus endeavoured to trace for you in a few leading outlines is that of protoplasm in its most generalised aspect. Such generalisations, however, are in themselves unable to satisfy the conditions demanded by an exact scientific inquiry, and I propose now, before passing to the further consideration of the place and purport of protoplasm in nature, to bring before you some definite examples of protoplasm such as are actually met with in the organic world. A quantity of a peculiar slimy matter was dredged in the North Atlantic by the naturalists of the exploring ship *Porcupine* from a depth of from 5000 feet to 25,000 feet. It is described as exhibiting, when examined on the spot, spontaneous movements, and as

being obviously endowed with life. Specimens of this, preserved in spirits, were examined by Professor Huxley, and declared by him to consist of protoplasm, vast masses of which must thus in a living state extend over wide areas of sea bottom. To this wonderful slime Huxley gave the name of *Bathybius Haeckelii*. Bathybius has since been subjected to an exhaustive examination by Professor Haeckel, who believes that he is able to confirm in all points the conclusions of Huxley, and arrives at the conviction that the bottom of the open ocean, at depths below 5000 feet, is covered with an enormous mass of living protoplasm, which lingers there in the simplest and most primitive condition, having as yet acquired no definite form. He suggests that it may have originated by spontaneous generation, but leaves this question for future investigators to decide. The reality of bathybius, however, has not been universally accepted. In the more recent investigations of the *Challenger* the explorers have failed in their attempts to bring further evidence of the existence of masses of amorphous protoplasm spreading over the bed of the ocean. They have met with no trace of bathybius in any of the regions explored by them, and they believe that they are justified in the conclusion that the matter found in the dredgings of the *Porcupine* and preserved in spirits for further examination was only an inorganic precipitate due to the action of the alcohol. It is not easy to believe, however, that the very elaborate investigations of Huxley and Haeckel can be thus disposed of. These, moreover, have received strong confirmation from the still more recent observation of the Arctic voyager, Bessels, who was one of the explorers of the ill-fated *Polaris*, and who states that he dredged from the Greenland seas masses of living undifferentiated protoplasm. Bessels assigns to these the name of *Protobathybius*, but they are apparently indistinguishable from the bathybius of the *Porcupine*. Further arguments against the reality of bathybius will therefore be needed before a doctrine founded on observations so carefully conducted shall be relegated to the region of confused hypotheses. Assuming, then, that bathybius, however much its supposed wide distribution may have been limited by more recent researches, has a real existence, it presents us with a condition of living matter the most rudimental it is possible to conceive. No law of morphology has as yet exerted itself in this formless slime. Even the simplest individualisation is absent. We have a living mass, but we know not where to draw its boundary lines; it is living matter, but we can scarcely call it a living being. We are not, however, confined to bathybius for examples of protoplasm in a condition of extreme simplicity. Haeckel has found inhabiting the fresh water in the neighbourhood of Jena minute lumps of protoplasm, which, when placed under the microscope, were seen to have no constant shape, their outline being in a state of perpetual change, caused by the protrusion from various parts of their surface of broad lobes and thick finger-like projections, which, after remaining visible for a time, would be withdrawn, to make their appearance again on some other part of the surface. These changeable protrusions of its substance, without fixed position or definite form, are eminently characteristic of protoplasm in some of its simplest conditions. They have been termed "Pseudopodia," and will frequently come before you in what I have yet to say. To the little protoplasmic lumps thus constituted, Haeckel has given the name of *Protamæba primitiva*. They may be compared to minute detached pieces of bathybius. He has seen them multiplying themselves by spontaneous division into two pieces, which, on becoming independent, increase in size and acquire all the characters of the parent. Several other beings as simple as *Protamæba* have been described by various observers, and especially by Haeckel, who brings the whole together into a group to which he gives the name of *Monera*, suggested by the extreme simplicity of the beings included in it. But we must now pass to a stage a little higher in the development of protoplasmic beings. Widely distributed in the fresh and salt waters of Britain, and probably of almost all parts of the world, are small particles of protoplasm closely resembling the *Protamæba* just described. Like it, they have no definite shape, and are perpetually changing their form, throwing out and drawing in thick lobes and finger-like pseudopodia, in which their body seems to flow away over the field of the microscope. They are no longer, however, the homogeneous particle of protoplasm which forms the body of *Protamæba*. Towards the

(a) In speaking of protoplasm as a liquid, it must be borne in mind that this expression refers only to its physical consistence—a condition depending mainly on the amount of water with which it is combined, and subject to considerable variation, from the solid form in which we find it in the dormant embryo of seeds, to the thin watery state in which it occurs in the leaves of *Valisneria*. Its distinguishing properties are totally different from those of a purely physical liquid and are subject to an entirely different set of laws.

centre a small globular mass of firmer protoplasm has become differentiated off from the remainder, and forms what is known as a nucleus, while the protoplasm forming the extreme outer boundary differs slightly from the rest, being more transparent, destitute of granules, and apparently somewhat firmer than the interior. We may also notice that at one spot a clear spherical space has made its appearance, but that while we watch it has suddenly contracted and vanished, and after a few seconds has begun to dilate so as again to come into view, once more to disappear, then again to return, and all this in regular rhythmical sequence. This little rhythmically pulsating cavity is called the "contractile vacuole." It is of very frequent occurrence among those beings which lie low down in the scale of life. We have now before us a being which has arrested the attention of naturalists almost from the commencement of microscopical observation. It is the famous *Amœba*, for which ponds and pools and gutters on the house-roof have for the last 200 years been ransacked by the microscopist, who has many a time stood in amazement at the undefinable form and protean changes of this particle of living matter. It is only the science of our own days, however, which has revealed its biological importance, and shown that in this little soft nucleated particle we have a body whose significance for the morphology and physiology of living beings cannot be over-estimated, for in *Amœba* we have the essential characters of a cell, the morphological unit of organisation, the physiological source of specialised function. The term "cell" has been so long in use that it cannot now be displaced from our terminology; and yet it tends to convey an incorrect notion, suggesting, as it does, the idea of a hollow body or vesicle, this having been the form under which it was first studied. The cell, however, is essentially a definite mass of protoplasm having a nucleus embedded in it. It may, or may not, assume the form of a vesicle; it may, or may not, be protected by an enveloping membrane; it may, or may not, contain a contractile vacuole; and the nucleus may, or may not, contain within it one or more minute secondary nuclei or "nucleoli." Let us observe our *Amœba* a little closer. Like all living beings, it must be nourished. It cannot grow as a crystal would grow, by accumulating on its surface molecule after molecule of matter. It must feed. It must take into its substance the necessary nutriment; it must assimilate this nutriment, and convert it into the material of which it is itself composed. If we seek, however, for a month by which the nutriment can enter into its body, or a stomach by which this nutriment can be digested, we seek in vain. Yet watch it for a moment as it lies in a drop of water beneath our microscope. Some living denizen of the same drop is in its neighbourhood, and its presence exerts on the protoplasm of the *Amœba* a special stimulus which gives rise to the movements necessary for the prehension of nutriment. A stream of protoplasm instantly runs away from the body of the *Amœba* towards the destined prey, envelopes it in its current, and then flows back with it to the central protoplasm, where it sinks deeper and deeper into the soft yielding mass, and becomes dissolved, digested, and assimilated in order that it may increase the size and restore the energy of its captor. But, again, like all living things, *Amœba* must multiply itself, and so, after attaining a certain size, its nucleus divides into halves, and then the surrounding protoplasm becomes similarly cleft, each half retaining one-half of the original nucleus. The two new nucleated masses which thus arise now lead an independent life, assimilate nutriment, and attain the size and characters of the parent. We have just seen that in the body of an *Amœba* we have the type of a cell. Now, both the fresh waters and the sea contain many living beings beside *Amœba*, which never pass beyond the condition of a simple cell. Many of these, instead of emitting the broad lobe-like pseudopodia of *Amœba*, have the faculty of sending out long thin threads of protoplasm, which they can again retract, and by the aid of which they capture their prey, or move from place to place. Simple structureless protoplasm as they are, many of them fashion for themselves an outer membranous or calcareous case, often of a symmetrical form and elaborate ornamentation, or construct a silicious skeleton of radiating spicula, or crystal clear concentric spheres of exquisite symmetry and beauty. Some move about by the aid of a flagellum, or long whip-like projection of their

bodies, by which they lash the surrounding waters, and which, unlike the pseudopodia of *Amœba*, cannot, during active life, be withdrawn into the general protoplasm of the body; while among many others locomotion is effected by means of cilia—microscopic vibratile hairs, which are distributed in various ways over the surface, and which, like the pseudopodia and flagella, are simple prolongations of their protoplasm. In every one of these cases the entire body has the morphological value of a cell, and in this simple cell reside the whole of the properties which manifest themselves in the vital phenomena of the organism. The part fulfilled by these simple unicellular beings in the economy of nature has at all times been very great, and many geological formations, largely built up of their calcareous or silicious skeletons, bear testimony to the multitudes in which they must have swarmed in the waters of the ancient earth. Those which have thus come down to us from ancient times owe their preservation to the presence of the hard persistent structures secreted by their protoplasm, and must, after all, have formed but a very small proportion of the unicellular organisms which peopled the ancient world, and there fulfilled the duties allotted to them in nature, but whose soft, perishable bodies have left no trace behind. In our own days similar unicellular organisms are at work, taking their part silently and unobtrusively in the great scheme of creation, and mostly destined, like their predecessors, to leave behind them no record of their existence. The red snow plant, to which is mainly due the beautiful phenomenon by which tracts of Arctic and Alpine snow become tinged of a delicate crimson, is a microscopic organism whose whole body consists of a simple spherical cell. In the protoplasm of this little cell must reside all the essential attributes of life; it must grow by the reception of nutriment; it must repeat by multiplication that form which it has itself inherited from its parent; it must be able to respond to the stimulus of the physical conditions by which it is surrounded. And there it is, with its structure almost on the bounds of extremest simplification, taking its allotted part in the economy of nature, combining into living matter the lifeless elements which lie around it, redeeming from sterility the regions of never-thawing ice, and peopling with its countless millions the wastes of the snow land. But organisation does not long rest on this low stage of unicellular simplicity, for as we pass from these lowest forms into higher, we find cell added to cell, until many millions of such units become associated in a single organism, where each cell or each group of cells has its own special work, while all combine for the welfare and unity of the whole. In the most complex animals, however, even in man himself, the component cells, notwithstanding their frequent modification and the usual intimacy of their union, are far from losing their individuality. Examine under the microscope a drop of blood freshly taken from the human subject or from any of the higher animals. It is seen to be composed of a multitude of red corpuscles, swimming in a nearly colourless liquid, and along with these, but in much smaller numbers, somewhat larger colourless corpuscles. The red corpuscles are modified cells, while the colourless corpuscles are cells still retaining their typical form and properties. These last are little masses of protoplasm, each enveloping a central nucleus. Watch them. They will be seen to change their shape; they will project and withdraw pseudopodia, and creep about like an *Amœba*. But, more than this, like an *Amœba*, they will take in solid matter as a nutriment. They may be fed with coloured food, which will then be seen to have accumulated in the interior of their soft transparent protoplasm; and in some cases the colourless blood corpuscles have actually been seen to devour their more diminutive companions, the red ones. . . . We have hitherto considered the cell only as a mass of active nucleated protoplasm, either absolutely naked or partially enclosed in a protective case, which still permits free contact of the protoplasm with the surrounding medium. In very many instances, however, the protoplasm becomes confined within resisting walls, which entirely shut it in from all direct contact with the medium which surrounds it. With the plant this is almost always so after the earliest stages of its life. Here the protoplasm of the cells is endowed with the faculty of secreting over its surface a firm resisting membrane, composed of cellulose, a substance destitute of nitrogen, thus totally different from the contained protoplasm, and incapable of manifesting any of the phenomena of life.

Within the walls of cellulose the protoplasm is now closely imprisoned, but we are not on that account to suppose that it has lost its activity or has abandoned its work as a living being. Though it is now no longer in direct contact with the surrounding medium, it is not the less dependent on it, and the reaction between the imprisoned protoplasm and the outer world is still permitted by the permeability of the surrounding wall of cellulose. When the protoplasm thus becomes surrounded by a cellulose wall it seldom retains the uniform arrangement of its parts which is often found in the naked cells. Minute cavities or vacuoles make their appearance in it; these increase in size and run one into the other, and may finally form one large cavity in the centre, which becomes filled with a watery fluid, known as the cell sap. This condition of the cell was the first observed, and it was it which suggested the often inapplicable term "cell." By the formation of this central sap cavity the surrounding protoplasm is pushed aside and pressed against the cellulose wall, over which it now extends as a continuous layer. The nucleus either continues near the centre, enveloped by a layer of protoplasm, which is connected by radiating bands of protoplasm with that of the walls, or it accompanies the displaced protoplasm, and lies embedded in this on the walls of the cell. We have abundant evidence to show that the imprisoned protoplasm loses none of its activity. The *Characæ* constitute an exceedingly interesting group of simple plants, common in the clear water of ponds and of slowly running streams. The cells of which they are built up are comparatively large, and, like almost all vegetable cells, are each enclosed in a wall of cellulose. The cellulose is perfectly transparent, and if the microscope, even with a low power, be brought to bear on one of these cells, a portion of its protoplasm may be seen in active rotation, flowing up one side of the long tubular cell and down the other, and sweeping on with it such more solid particles as may become enveloped in its current. In another water plant, the *Valisneria spiralis*, a similar active rotation of the protoplasm may be seen in the cells of the leaf, where the continuous stream of liquid protoplasm sweeping along the green granules of chlorophyll, and even carrying the globular nucleus with it in its current, presents one of the most beautiful of the many beautiful phenomena which the microscope has revealed to us. We have already seen that every cell possesses an autonomy or independent individuality, and from this we should expect that, like all living beings, it had the faculty of multiplying itself, and of becoming the parent of other cells. This is truly the case, and the process of cell-multiplication has of late years been studied with the result of adding largely to our knowledge of the phenomena of life. The labours of Strasburger, of Auerbach, of Oscar Hertwig, of Eduard van Beneden, Bütschli, Fol, and others, here come prominently before us, but neither the time at my disposal nor the purport of this address will allow me to do more than call your attention to some of the more striking results of their investigations. By far the most frequent mode of multiplication among cells shows itself in a spontaneous division of the protoplasm into two separate portions, which then become independent of one another, so that instead of the single parent cell two new ones have made their appearance. In this process the nucleus usually takes an important part. Strasburger has studied it with great care in certain plant cells, such as the so-called "corpuscula" or "secondary embryo-sacs" of the *Coniferæ* and the cells of *Spirogyra*; and has further shown a close correspondence between cell-division in animals and that in plants. . . . Related to the formation of new cells, whether by division or by free cell-formation, is another very interesting phenomenon of living protoplasm known as "rejuvenescence." In this the whole protoplasm of a cell by a new arrangement of its parts assumes a new shape and acquires new properties. It then abandons its cellulose chamber, and enters on a new and independent life in the surrounding medium. A good example of this is afforded by the formation of swarm-spores in *Oedogonium*, one of the fresh-water *Algæ*. Here the whole of the protoplasm of an adult cell contracts, and by the expulsion of its cell sap changes from a cylindrical to a globular shape. Then one spot becomes clear, and a pencil of vibratile cilia here shows itself. The cellulose wall which had hitherto confined it now becomes ruptured, and the protoplasmic sphere, endowed with new faculties of development and with powers of active locomotion, escapes as a swarm-spore, which, after enjoying for a

time the free life of an animal, comes to rest, and develops itself into a new plant. The beautiful researches which have within the last few years been made by the observers already mentioned, on the division of animal cells, show how close is the arrangement between plants and animals in all the leading phenomena of cell-division, and afford one more proof of the essential unity of the two great organic kingdoms. There is one form of cell which, in its relation to the organic world, possesses a significance beyond that of every other—namely, the egg. As already stated, the egg is, wherever it occurs, a typical cell, consisting essentially of a globule of protoplasm enveloping a nucleus (the "germinal vesicle"), and with one or more nucleoli (the "germinal spots") in the interior of the nucleus. This cell, distinguishable by no tangible characters from thousands of other cells, is nevertheless destined to run through a definite series of developmental changes, which have as their end the building up of an organism like that to which the egg owes its origin. It is obvious that such complex organisms as thus result—composed, it may be, of countless millions of cells—can be derived from the simple egg-cell only by a process of cell-multiplication. The birth of new cells derived from the primary cell or egg thus lies at the basis of embryonic development. It is here that the phenomena of cell-multiplication in the animal kingdom can in general be most satisfactorily observed, and the greater number of recent researches into the nature of these phenomena have found their most fertile field in the early periods of the development of the egg. . . . The action of chlorophyll in bringing about the decomposition of carbonic acid is not, as was recently believed, absolutely confined to plants. In some of the lower animals, such as Stentor and other infusoria, the green hydra, and certain green planariæ and other worms, chlorophyll is differentiated in their protoplasm, and probably always acts here under the influence of light exactly as in plants. Indeed, it has been proved by some recent researches of Mr. Geddes, that the green planarias, when placed in water and exposed to the sunlight, give out bubbles of gas which contain from 44 to 55 per cent. of oxygen. Mr. Geddes has further shown that these animals contain granules of starch in their tissues, and in this fact we have another striking point of resemblance between them and plants. A similar approximation of the two organic kingdoms has been shown by the beautiful researches of Mr. Darwin—confirmed and extended by his son, Mr. Francis Darwin—on *Drosera* and other so-called carnivorous plants. These researches, as is now well known, have shown that in all carnivorous plants there is a mechanism fitted for the capture of living prey, and that the animal matter of the prey is absorbed by the plant after having been digested by a secretion which acts like the gastric juice of animals. Again, Nägeli has recently shown that the cell of the yeast fungus contains about 2 per cent. of peptine, a substance hitherto known only as a product of the digestion of azotised matter by animals. Indeed, all recent research has been bringing out in a more and more decisive manner the fact that there is no dualism in life—that the life of the animal and the life of the plant are, like their protoplasm, in all essential points identical. But there is, perhaps, nothing which shows more strikingly the identity of the protoplasm in plants and animals, and the absence of any deep-pervading difference between the life of the animal and that of the plant, than the fact that plants may be placed, just like animals, under the influence of anæsthetics. When the vapour of chloroform or of ether is inhaled by the human subject it passes into the lungs, where it is absorbed by the blood, and thence carried by the circulation to all the tissues of the body. The first to be affected by it is the delicate nervous element of the brain, and loss of consciousness is the result. If the action of the anæsthetic be continued, all the other tissues are in their turn attacked by it and their irritability arrested. A set of phenomena entirely parallel to these may be presented by plants. We owe to Claude Bernard a series of interesting and most instructive experiments on the action of ether and chloroform on plants. He exposed to the vapour of ether a healthy and vigorous sensitive plant, by confining it under a bell-glass into which he introduced a sponge filled with ether. At the end of half an hour the plant was in a state of anæsthesia; all its leaflets remained fully extended, but they showed no tendency to shrink when touched. It was then withdrawn from the influence of the ether, when it gradually recovered

its irritability, and finally responded, as before, to the touch. It is obvious that the irritability of the protoplasm was here arrested by the anæsthetic, so that the plant became unable to give a response to the action of an external stimulus. It is not, however, the irritability of the protoplasm of only the motor elements of plants that anæsthetics are capable of arresting. These may act also on the protoplasms of those cells whose function lies in chemical synthesis, such as is manifested in the phenomena of the germination of the seed and in nutrition generally, and Claude Bernard has shown that germination is suspended by the action of ether or chloroform. Seeds of cress, a plant whose germination is very rapid, were placed in conditions favourable to a speedy germination, and while thus placed were exposed to the vapour of ether. The germination, which would otherwise have shown itself by the next day, was arrested. For five or six days the seeds were kept under the influence of the ether, and showed during this time no disposition to germinate. They were not killed, however, they only slept, for on the substitution of common air for the etherised air with which they had been surrounded, germination at once set in, and proceeded with activity. Experiments were also made on that function of plants by which they absorb carbonic acid and exhale oxygen, and which, as we have already seen, is carried on through the agency of the green protoplasm or chlorophyll, under the influence of light—a function which is commonly but erroneously called the respiration of plants. Aquatic plants afford the most convenient subjects for such experiments. If one of these be placed in a jar of water holding ether or chloroform in solution, and a bell-glass be placed over the submerged plant, we shall find that the plant no longer absorbs carbonic acid or emits oxygen. It remains, however, quite green and healthy. In order to awaken the plant, it is only necessary to place it in non-etherised water, when it will begin once more to absorb carbonic acid and exhale oxygen under the influence of sunlight. The same great physiologist has also investigated the action of anæsthetics on fermentation. It is well known that alcoholic fermentation is due to the presence of a minute fungus, the yeast fungus, the living protoplasm of whose cells has the property of separating solutions of sugar into alcohol, which remains in the liquid, and carbonic acid, which escapes into the air. Now, if the yeast plant be placed along with sugar in etherised water it will no longer act as a ferment. It is anæsthesiated, and cannot respond to the stimulus which, in ordinary circumstances, it would find in the presence of the sugar. If, now, it be placed on a filter, and the ether washed completely away, it will, on restoration to a saccharine liquid, soon resume its duty of separating the sugar into alcohol and carbonic acid. Claude Bernard has further called attention to a very significant fact which is observable in this experiment. While the proper alcoholic fermentation is entirely arrested by the etherisation of the yeast plant, there still goes on in the saccharine solution a curious chemical change, the cane sugar of the solution being converted into grape sugar, a substance identical in its chemical composition with the cane sugar, but different in its molecular constitution. Now, it is well known from the researches of Bertholet that this conversion of cane sugar into grape sugar is due to a peculiar inversive ferment, which, while it accompanies the living yeast plant, is itself soluble and destitute of life. Indeed, it has been shown that in its natural conditions the yeast fungus is unable of itself to assimilate cane sugar, and that in order that this may be brought into a state fitted for the nutrition of the fungus, it must be first digested and converted into grape sugar, exactly as happens in our own digestive organs. To quote Claude Bernard's graphic account:—"The fungus ferment has thus beside it in the same yeast a sort of servant given by nature to effect this digestion. The servant is the unorganised inversive ferment. This ferment is soluble, and as it is not a plant, but an unorganised body destitute of sensibility, it has not gone to sleep under the action of the ether, and thus continues to fulfil its task." In the experiment already recorded on the germination of seeds the interest is by no means confined to that which attaches itself to the arrest of the organising functions of the seed, those, namely, which manifest themselves in the development of the radicle and plumule and other organs of the young plant. Another phenomenon of great significance becomes at the same time apparent—the anæsthetic exerts

no action on the concomitant chemical phenomena which in germinating seeds show themselves in the transformation of starch into sugar under the influence of diastase (a soluble and non-living ferment which also exists in the seed), and the absorption of oxygen with the exhalation of carbonic acid. These go on as usual, the anæsthesiated seed continuing to respire, as proved by the accumulation of carbonic acid in the surrounding air. The presence of the carbonic acid was rendered evident by placing in the same vessel with the seeds which were the object of the experiment a solution of barytes, when the carbonate became precipitated from the solution in quantity equal to that produced in a similar experiment with seeds germinating in unetherised air. So, also, in the experiment which proves that the faculty possessed by the chlorophyllian cells of absorbing carbonic acid and exhaling oxygen under the influence of light may be arrested by anæsthetics, it could be seen that the plant, while in a state of anæsthesia, continued to respire in the manner of animals—that is, it continued to absorb oxygen and exhale carbonic acid. This is the true respiratory function which was previously masked by the predominant function of assimilation, which develops on the green cells of plants, and which manifests itself under the influence of light in the absorption of carbonic acid and the exhalation of oxygen. It must not, however, be supposed that the respiration of plants is entirely independent of life. The conditions which bring the oxygen of the air and the combustible matter of the respiring plant into such relations as may allow them to act on one another are still under its control, and we must conclude that in Claude Bernard's experiment the anæsthesia had not been carried so far as to arrest such properties of the living tissues as are needed for this. The quite recent researches of Schützenberger, who has investigated the process of respiration as it takes place in the cell of the yeast fungus, have shown that vitality is a factor in this process. He has shown that fresh yeast, placed in water, breathes like an aquatic animal, disengaging carbonic acid, and causing the oxygen contained in the water to disappear. That this phenomenon is a function of the living cell is proved by the fact that if the yeast be first heated to 60° C. and then placed in the oxygenated water, the quantity of oxygen in the water remains unchanged—in other words, the yeast ceases to breathe. Schützenberger has further shown that light exerts no influence on the respiration of the yeast cell; that the absorption of oxygen by the cell takes place in the dark exactly as in sunlight. On the other hand, the influence of temperature is well marked. Respiration is almost entirely arrested at temperatures below 10° C., it reaches its maximum at about 40° C., while at 60° C. it again ceases. All this proves that the respiration of living beings is identical, whether manifested in the plant or in the animal. It is essentially a destructive phenomenon, as much so as the burning of a piece of charcoal in the open air, and, like it, is characterised by the disappearance of oxygen and the formation of carbonic acid. One of the most valuable results of the recent careful application of the experimental method of research to the life phenomena of plants is thus the complete demolition of the supposed antagonism between respiration in plants and that in animals. I have thus endeavoured to give you in a few broad outlines a sketch of the nature and properties of one special modification of matter, which will yield to none other in the interest which attaches to its study, and in the importance of the part allocated to it in the economy of nature. Did the occasion permit I might have entered into many details which I have left untouched; but enough has been said to convince you that in protoplasm we find the only form of matter in which life can manifest itself; and that, though the outer conditions of life—heat, air, water, food—may all be present, protoplasm would still be needed in order that these conditions may be utilised, in order that the energy of lifeless nature may be converted into that of the countless multitudes of animal and vegetable forms which dwell upon the surface of the earth or people the great depths of its seas. We are thus led to the conception of an essential unity in the two great kingdoms of organic nature—a structural unity, in the fact that every living being has protoplasm as the essential matter of every living element of its structure; and a physiological unity, in the universal attribute of irritability which has its seat in this same protoplasm, and is the prime mover of every phenomenon of life. We have seen how little

mereform has to do with the essential properties of protoplasm. This may shape itself into cells, and the cells may combine into organs in ever-increasing complexity, and protoplasm force may be thus intensified, and, by the mechanism of organisation, turned to the best possible account; but we must still go back to protoplasm as a naked, formless plasma if we would find, freed from all non-essential complications, the agent to which has been assigned the duty of building up structure and of transforming the energy of lifeless matter into that of living. To suppose, however, that all protoplasm is identical where no difference cognisable by any means at our disposal can be detected, would be an error. Of two particles of protoplasm, between which we may defy all the power of the microscope, all the resources of the laboratory, to detect a difference, one can develop only to a jelly-fish, the other only to a man, and one conclusion alone is here possible—that deep within them there must be a fundamental difference which thus determines their inevitable destiny, but of which we know nothing, and can assert nothing beyond the statement that it must depend on their hidden molecular constitution. In the molecular condition of protoplasm there is probably as much complexity as in the disposition of organs in the most highly differentiated organisms; and between two masses of protoplasm indistinguishable from one another there may be as much molecular difference as there is between the form and arrangement of organs in the most widely separated animals or plants. Herein lies the many-sidedness of protoplasm; herein lies its significance as the basis of all morphological expression, as the agent of all physiological work, while in all this there must be an adaptiveness to purpose as great as any claimed for the most complicated organism. From the facts which have been now brought to your notice there is but one legitimate conclusion—that life is a property of protoplasm. In this assertion there is nothing that need startle us. The essential phenomena of living beings are not so widely separated from the phenomena of lifeless matter as to render it impossible to recognise an analogy between them; for even irritability, the one grand character of all living beings, is not more difficult to be conceived of as a property of matter than the physical phenomena of radial energy. It is quite true that between lifeless and living matter there is a vast difference, a difference greater far than any which can be found between the most diverse manifestations of lifeless matter. Though the refined synthesis of modern chemistry may have succeeded in forming a few principles which until lately had been deemed the proper product of vitality, the fact still remains that no one has ever yet built up one particle of living matter out of lifeless elements—that every living creature, from the simplest dweller on the confines of organisation up to the highest and most complex organism, has its origin in pre-existent living matter—that the protoplasm of to-day is but the continuation of the protoplasm of other ages, handed down to us through periods of indefinable and indeterminable time. Yet with all this, vast as the differences may be, there is nothing which precludes a comparison of the properties of living matter with those of lifeless. When, however, we say that life is a property of protoplasm we assert as much as we are justified in doing. Here we stand upon the boundary between life in its proper conception, as a group of phenomena having irritability as their common bond, and that other and higher group of phenomena which we designate as consciousness or thought, and which, however intimately connected with those of life, are yet essentially distinct from them. When the heart of a recently killed frog is separated from its body, and touched with the point of a needle, it begins to beat under the excitation of the stimulus, and we believe ourselves justified in referring the contraction of the cardiac fibres to the irritability of their protoplasm as its proper cause. We see in it a remarkable phenomenon, but one nevertheless in which we can see unmistakable analogies with phenomena purely physical. There is no greater difficulty in conceiving of contractibility as a property of protoplasm than there is in conceiving of attraction as a property of the magnet. When a thought passes through the mind it is associated, as we have now abundant reason for believing, with some change in the protoplasm of the cerebral cells. Are we, therefore, justified in regarding thought as a property of the protoplasm of these cells, in the sense in which we regard muscular contraction as a property of the protoplasm of muscle? or is it really a pro-

perty residing in something far different, but which may yet need for its manifestation the activity of cerebral protoplasm? If we could see any analogy between thought and any one of the admitted phenomena of matter, we should be bound to accept the first of these conclusions as the simplest, and as affording a hypothesis most in accordance with the comprehensiveness of natural laws; but between thought and the physical phenomena of matter there is not only no analogy, but there is no conceivable analogy; and the obvious and continuous path which we have hitherto followed up in our reasonings from the phenomena of lifeless matter through those of living matter here comes suddenly to an end. The chasm between unconscious life and thought is deep and impassable, and no transitional phenomena can be found by which as by a bridge we may span it over; for even from irritability, to which, on a superficial view, consciousness may seem related, it is as absolutely distinct as it is from any of the ordinary phenomena of matter. It has been argued that because physiological activity must be a property of every living cell, psychical activity must be equally so, and the language of the metaphysician has been carried into biology, and the "cell soul" spoken of as a conception inseparable from that of life. That psychical phenomena, however, characterised as they essentially are by consciousness, are not necessarily co-extensive with those of life there cannot be a doubt. How far back in the scale of life consciousness may exist we have as yet no means of determining, nor is it necessary for our argument that we should. Certain it is that many things, to all appearance the result of volition, are capable of being explained as absolutely unconscious acts; and when the swimming swarm-spore of an alga avoids collision, and by a reversal of the stroke of its cilia backs from an obstacle lying in its course, there is almost certainly in all this nothing but a purely unconscious act. It is but a case in which we find expressed the great law of the adaptation of living beings to the conditions which surround them. The irritability of the protoplasm of the ciliated spore responding to an external stimulus sets in motion a mechanism derived by inheritance from its ancestors, and whose parts are correlated to a common end—the preservation of the individual. But, even admitting that every living cell were a conscious and thinking being, are we therefore justified in asserting that its consciousness, like its irritability, is a property of the matter of which it is composed? The sole argument on which this view is made to rest is that from analogy. It is argued that because the life phenomena, which are invariably found in the cell, must be regarded as a property of the cell, the phenomena of consciousness by which they are accompanied must be also so regarded. The weak point in the argument is the absence of all analogy between the things compared, and as the conclusion rests solely on the argument from analogy, the two must fall to the ground together. In a lecture to which I once had the pleasure of listening—a lecture characterised no less by lucid exposition than by the fascinating form in which its facts were presented to the hearers—Professor Huxley argues that no difference, however great, between the phenomena of living matter and those of the lifeless elements of which this matter is composed should militate against our attributing to protoplasm the phenomena of life of properties essentially inherent in it; since we know that the result of a chemical combination of physical elements may exhibit physical properties totally different from those of the elements combined; the physical phenomena presented by water, for example, having no resemblance to those of its combining elements, oxygen and hydrogen. I believe that Professor Huxley intended to apply this argument only to the phenomena of life in the stricter sense of the word. As such it is conclusive. But if it be pushed further and extended to the phenomena of consciousness, it loses all its force. The analogy, perfectly valid in the former case, here fails. The properties of the chemical compound are like those of its components, still physical properties. They come within the wide category of the universally accepted properties of matter, while those of consciousness belong to a category absolutely distinct—one which presents not a trace of a connexion with any of those which physicists have agreed in assigning to matter as its proper characteristics. The argument thus breaks down, for its force depends on analogy alone, and here all analogy vanishes. That consciousness is never manifested except in the presence of cerebral

matter or of something like it there cannot be a question; but this is a very different thing from its being a property of such matter in the sense in which polarity is a property of the magnet, or irritability of protoplasm. The generation of the rays which lie invisible beyond the violet in the spectrum of the sun cannot be regarded as a property of the medium which by changing their refrangibility can alone render them apparent. I know that there is a special charm in those broad generalisations which would refer many very different phenomena to a common source. But in this very charm there is undoubtedly a danger, and we must be all the more careful lest it should exert an influence in arresting the progress of truth, just as at an earlier period traditional beliefs exerted an authority from which the mind but slowly and with difficulty succeeded in emancipating itself. But have we, it may be asked, made in all this one step forward towards an explanation of the phenomena of consciousness or the discovery of its source? Assuredly not. The power of conceiving of a substance different from that of matter is still beyond the limits of human intelligence, and the physical or objective conditions which are the concomitants of thought are the only ones of which it is possible to know anything, and the only ones whose study is of value. We are not, however, on that account forced to the conclusion that there is nothing in the universe but matter and force. The simplest physical law is absolutely inconceivable by the highest of the brutes, and no one would be justified in assuming that man had already attained the limit of his powers. Whatever may be that mysterious bond which connects organisation with physical endowments, the one great fact—a fact of inestimable importance—stands out clear and freed from all obscurity and doubt, that from the first dawn of intelligence there is with every advance in organisation a corresponding advance in mind. Mind as well as body is thus travelling onwards through higher and still higher phases; the great law of evolution is shaping the destiny of our race; and though now we may at most but indicate some weak point in the generalisation which would refer consciousness as well as life to a common material source, who can say that in the far-off future there may not yet be evolved other and higher faculties from which light may stream in upon the darkness and reveal to man the great mystery of thought?

ORIGINAL COMMUNICATIONS.

SOMATIC OR NOCTURNAL EPILEPSY.

By W. J. H. LUSH, M.D., F.L.S.,

Fellow of the Royal College of Physicians of Edinburgh;
Member of the Royal College of Surgeons of England; Associate
(formerly Warneford Clinical Scholar) of King's College, London, etc.

Mr. H., aged thirty-four, consulted me on January 14 last, under the following circumstances:—He had always enjoyed fairly good health till within a fortnight of the above-mentioned date, and, although not a robust man, he could not remember that he had suffered from any serious illness. He had been married for nearly four years, but had no family. In appearance he was fairly well made, but had a cadaverous and pallid look, with a vacant expression of the eyes, and a decided twitching of the facial muscles. He answered questions intelligently, but in a nervous, hesitating manner. He complained of occasional "nervous headache" and dizziness, which always came on most acutely in the evening, although he sometimes felt the giddiness during the day, but to a less extent. He did not pay much attention to these symptoms, thinking that they most probably arose from a disordered liver. On January 14 he went to bed at his usual time, about eleven o'clock, apparently in good health, and went to sleep almost at once. About two o'clock his wife was frightened by hearing her husband utter a sharp cry, and immediately afterwards he became violently convulsed; and in describing the attack (which lasted about ten minutes) to me on my arrival, she enumerated all the features which are present in a bad epileptiform convulsion—the rigid features, the grinding of the teeth, the deathly pallor, etc. When I saw him, about an hour and a half after the attack, he was sleeping quietly; the pulse was

rather quick, but the breathing was natural. He was easily roused, but he answered questions in a rambling manner, and complained of headache and giddiness. On being left to himself he quickly fell off to sleep again. On visiting him the next morning, beyond a sensation of general stiffness and a languid and tired feeling, he expressed himself as being "much the same as usual." He remembered nothing of the attack, but had a faint recollection of having seen me standing by his bedside.

Although I was not present at the attack, it was without doubt a very severe form of epileptic convulsion (*grand* or *haut mal*), and it came on without any apparent cause, as, beyond a rather vague account of a blow on the forehead about two years previously, there was nothing either in his personal or family history to blame for the attack. I prescribed potas. bromid. gr. x. in an ounce of camphor mixture three times a day, with a light diet of mutton, chicken, etc., together with fish and fresh vegetables, and two glasses of Burgundy with his early dinner, and a tablespoonful of whiskey before going to bed, and enjoined perfect rest and abstinence from all business engagements. For the next three days he seemed to be in his usual state of health, but his wife, an intelligent woman, to whom I minutely described his condition, remarked that about two o'clock every night he became extremely restless, and appeared to be slightly convulsed, though he continued sleeping, the restlessness apparently lasting for about ten minutes or a quarter of an hour. On the fourth night he had another decided convulsion, which, however, lasted but four minutes, and, notwithstanding that he bit his tongue severely during the paroxysm, he had not the least recollection of it in the morning; in fact, as his wife remarked to me, "It did not arouse him from his sleep." Taking into consideration that, beyond feeling a little dizziness on the day immediately following a severe convulsion only, and that the attacks, whether slight or severe in character, only came on at night, and also at about the same hour of the night, I ordered him to take the bromide of potash mixture as before, but the third dose I increased to fifteen grains and added chloral hydrate gr. viij. to it, requesting him to take it at twelve o'clock, or about two hours before the fit usually occurred.

The same night that he began the combined draught of bromide and chloral he had another severe convulsion, lasting nearly seven minutes. He continued in a state of stupor or profound sleep till the morning, and when he awoke he remembered nothing about the attack, but complained that he had had very bad dreams. The bromide of potash was increased by five grains in each dose. This treatment was continued for nearly a month, the improvement being very marked. Note on February 9: Has had no severe attack for ten days, the "restlessness" at night only occurring every third or fourth night, and being much diminished both in strength and duration. The bromide was decreased by ten grains in each dose; the same amount of chloral, however, being given with the night draught. He was also ordered ol. morrhue 3 ss. bis die.

Here, then, was a decided case of epilepsy coming on without any assignable cause, and it may, I think, be fairly classed under the head of nocturnal or somatic epilepsy, in contradistinction to other forms of the malady which occur at irregular periods of the day or night.

Dr. Echeverria, in a recent paper on the subject of somatic epilepsy, mentions that the paroxysms may be reduced to three very distinct groups:—

1. Attacks which occur suddenly, either with or without a sharp cry being uttered by the patient, who continues to sleep during the convulsion, and who on awakening in the morning remembers nothing of the trial he has gone through.
2. Attacks in which the paroxysms are characterised by periods of frantic excitement, and which are more prolonged than in the former case, and from which, if the sufferer has not to be aroused during the attack, he awakes in the morning with a vague consciousness of his sleep having been disturbed by terrific dreams, and with a feeling of general and bodily languor and fatigue, and yet at the same time without any distinct recollection of what has occurred.
3. Attacks which occur successively, accompanied with fearful dreams and hallucinations, which continue after the patient has been to a certain extent roused from his sleep or stupor in the morning. In this state the slightest moral or physical impression may be sufficient to bring on a paroxysm of sudden violence.

The above case evidently comes under the first category, although the symptoms were somewhat modified.

The attacks came on, as a rule, about 2 p.m.; he occasionally bit his tongue more or less severely; and when he awoke in the morning he complained of headache and malaise, and of a general feeling of stiffness after a severe attack. There was a decided absence of one of the most important pathognomonic signs of somatic epilepsy, and on which Trousseau laid such great stress, viz., incontinence of urine. This symptom was especially marked in the following case:—

Henry G., aged nine, with a family history of epilepsy—his father being still alive, having had frequent attacks—was frightened one night by a playfellow getting under his bed, after he had been to sleep for about half an hour, and suddenly arousing him. During the night his sister, who slept in the room with him, heard him suddenly cry out, and on striking a light she found him shivering all over and bathed in a profuse perspiration. She naturally thought he had been dreaming and was excited from his previous fright, and consequently did not pay much attention to him, but soothed him in a sisterly way, and he soon settled down to sleep again. A few nights afterwards she was again aroused by a repetition of the cry, etc., and, although he seemed very restless for about ten minutes, he is reported not to have been “thoroughly awake,” and to have soon “settled down quietly again.” In the morning it was discovered that he had passed water in his bed during the night—a thing which he had never been known to be guilty of before. His friends then consulted me. I watched the case carefully for some little time, thinking that perhaps it was simply one of acquired enuresis, but the attacks, always accompanied with the cry, which at first only occurred every fourth or fifth night, gradually increased both in frequency and severity, till at last he rarely passed a night without being disturbed; the restlessness having become quite a convulsion, which was decidedly epileptiform in character. I treated the boy with ten-minim doses of tincture of belladonna, under which treatment the convulsions and incontinence sensibly decreased, although the former still occurred two or three nights every week. Bromide of potash was then substituted for the tincture of belladonna in five-grain doses twice a day, and with a draught containing potas. bromid. gr. v., chloral hyd. gr. iij., to be given every night at bedtime. The attacks, which from their commencement had only happened at night, gradually left him, and he continued free from them for nearly a twelvemonth. A few weeks ago, however, I was hurriedly summoned to attend him in the afternoon, and found him just recovering from what had evidently been a severe epileptic fit, and from the effects of which he is still suffering.

The tincture of belladonna has, according to some observers, a very beneficial effect in some cases of epilepsy. I have tried it in several cases, and believe it to be of special use in cases of the disease occurring in children under the age of puberty, and in which enuresis is a symptom. In this case it evidently lessened the severity and frequency of the paroxysms, as well as the prominent feature in it.

Amongst other physical traces which one expects to meet with after an attack of nocturnal epilepsy, I would mention a peculiar petechial rash or ecchymotic eruption which is sometimes found on the neck or shoulders, round the eyelids and mouth, and also round the nipples, especially in the case of pregnant or nursing women.

I attended Mrs. M., a lady with a slight family history of epilepsy, in her first three confinements, each one being perfectly natural, and only attended with an ordinary amount of suffering lasting for four or five hours, and all being terminated before noon. After the first and second confinements she suffered from a very excessive degree of excitement altogether out of proportion to that which often comes on after the most easy labour. The paroxysm commenced each night between ten and eleven o'clock, and almost amounted to a convulsion. Notwithstanding the severity of the attacks, I was inclined at the time to think that they were due to the puerperal state, but between her second and third confinements, when she was not *enccinte*, I had occasion to give her chloroform in order to remove a fatty tumour situated over the scapula. She did not take chloroform well, although there were no symptoms to cause alarm, but about ten minutes after the completion of the operation, and after she had quite recovered from the effects of the anæsthetic,

she had a marked epileptiform convulsion, lasting about four minutes. I mention this, as, taken with her family history, I think there cannot be any great doubt but that the symptoms of excitement or exaltation following her confinements were in reality epileptic in character, although not so pronounced as to be decisively diagnosed as such. Each period of excitement occurred on the night immediately succeeding the labour, and also on the two or three following nights. After the first confinement she suffered from a circular patch of eczema round each nipple, and after the second she had an attack of herpes zoster. After her third confinement she was extremely restless and excitable on the second and third nights following it, but the restlessness passed off without any convulsion taking place. Hereditary predisposition has a great influence in every case, either of somatic or ordinary epilepsy; while syphilis, uterine affections, including pregnancy, intemperance, and mental anxiety, are amongst the most important factors. Combined with hereditary taint, I believe the chief source of nocturnal epilepsy to be encephalic, not so much *per se*, but more on account of its accompanying evils. Attacks of somatic epilepsy seldom occur till after the sufferer has been in bed and asleep for one or two hours; and as long as the brain is nourished and at rest, so long is the attack warded off. Amongst the many *exciting* causes, I would therefore mention insomnia as one of the most, if not the most important, and consequently all those modes of living which so tend to promote insomnia are also in a great degree answerable for the more remote malady, nocturnal epilepsy.

Somatic epilepsy is much more common in the upper and middle classes than it is in the lower or labouring communities. Men engaged in anxious callings, involving intense mental worry; fashionable ladies, leading artificial and indolent lives, taking little or no exercise, and keeping late hours,—are greater sufferers in this respect than are those men or women who live mostly in the open air, and who have to earn their livelihood by manual labour only, and who have little or no reason for exercising mental activity. There can be no doubt but that the constant state of excitement in which men engaged in “the race for gold,” as well as the votaries of fashion, are compelled to live, tends most materially to weaken the various delicate organisations of the body, causing in the first place undue tension of the nervous and arterial systems; and from, at first, an occasional feeling of restlessness during the hours which should be passed in refreshing sleep, the worn-out follower of either business or pleasure lapses into a state of almost complete insomnia, which, when there is a predisposition through hereditary taint, gradually becomes developed into nocturnal epilepsy, varying in degree from a transient feeling of giddiness to the well-marked convulsion. In addition to this, and following in its wake, there is an evil which has become fearfully common, and, notwithstanding all the warnings which have been given, continues to be much on the increase,—I mean the habit of procuring temporary quiet to the overstrained nervous system by the use of narcotics; and I may safely say that many cases of somatic epilepsy owe their origin to the abuse of such drugs as chloral hydrate, chlorodyne, etc.; and I have no doubt but that when the report of the committee appointed by the Clinical Society to investigate what deleterious effects follow the abuse of chloral is published, numerous cases of this kind will be recorded in it. The following is such a case: A young lady, aged twenty-eight years, with a slight family history of the disease, had been in the habit of taking, without medical advice and unknown to her friends, large doses of the syrup of chloral. She met with an accident which compelled her to keep her bed, and thus prevented her from obtaining a supply of her poison, which she was unwilling or ashamed to ask for. The sudden deprivation of it caused intense nervous irritability, which finally ended in a well-marked epileptic convulsion.

Sex appears to have little or no influence on the malady, although there is a slight preponderance on the female side. Attacks may occur at any age, but it is rare to meet with a primary attack happening later than forty.

With regard to the aura, it varies as it does in ordinary epilepsy, though, as a rule, I believe it is more frequently absent altogether, or, if present, only in a slight form. In the case of a patient under my care, who suffered from frequent and severe paroxysms of nocturnal epilepsy, the aura was described as commencing at the ensiform cartilage,

running upwards, and terminating at the pomum Adami in a sensation of suffocation, the fit coming on immediately this point was reached.

These cases of nocturnal epilepsy will, I think, be read with some slight degree of interest, and, although they possess few new features, still afford sufficient material for thought to account for my publishing them. Epilepsy, from the earliest periods of history, has always been a disease about which a vast amount has been said and written, and probably there is no malady in the treatment of which so many drugs have been employed. Bromide of potassium, the mineral tonics, henbane, etc., have all proved of great value in various cases, but, with our present amount of knowledge of epilepsy and its treatment, the probability is, as Esquirol remarked, that epileptics improve for a time under every new form of treatment. A great feature in the general management of an epileptic patient is to inspire him with hope and confidence that, notwithstanding frequent relapses, he will ultimately be free from the paroxysms.

Fyfield, Andover.

A FREQUENT CAUSE OF AUTOGENETIC PUERPERAL SEPTICÆMIA.

By A. W. MAYO ROBSON, M.R.C.S. and L.R.C.P. Lond.,
Demonstrator of Anatomy in the Leeds School of Medicine.

In these times of antiseptics, and of the preventive rather than the curative treatment of disease, it seems to me that obstetricians might take a hint from surgeons with advantage: the latter have certainly the pull over the former in that they can by drainage and antiseptics absolutely prevent the decomposition of fluids in wounds; but if obstetricians cannot conveniently deliver a woman under carbolic spray, they can at all events direct absolute cleanliness to be observed, provide for the free evacuation of fluids, and use antiseptic injections, thus preventing the retention and decomposition of the lochia and warding off the results of absorption.

We are cognisant of the fact that a lying-in woman is peculiarly prone to the infection of zymotics and to sewer-gas poisoning, thus setting up "heterogenetic septicæmia"; hence we do our utmost to avoid such sources of infection, and thus prevent disease: but is all done that is possible to prevent autogenetic septicæmia?

Why do we have the peculiar (not to say fetid) odour of the lochial discharge, which at once characterises a lying-in room, and which, in my experience, is not noticed till the second day?

Why is it so common to have what is termed a "weid" coming on about the third day, which is referred to a chill, to change of weather, or to anything but the right cause?

Why should the mortality be greater in primiparæ, who, although they have longer labours, are, as a rule, stronger, more robust, and generally healthier than multiparæ?

And why do we refer nearly all cases of septic absorption to the placental site, although we may have been most careful during the third stage of labour to see that all has come away that ought to do?

Speaking as a surgeon, if I were to perform an operation, and, without providing for drainage, leave the wound exposed at a temperature of 100° Fahr. to a mixture of sanguinolent fluid and disintegrated membrane, the said fluid having made an intimate acquaintance with bacteria, and if I diligently kept up the temperature and systematically abstained from washing or cleansing the sore, would anyone exonerate me from blame if blood-poisoning occurred? But let us transfer the wound to another region, viz., the perineum of a woman recently confined (especially a primipara, for in first cases I believe the perineum is usually more or less torn), and what have we to chronicle? In the ordinary state of affairs, just the condition sketched out above—i.e., if there be any injury to the perineum—for the patient is, as a rule, told to preserve the dorsal decubitus, thus making a naturally dependent outlet slightly superior, and preventing the free evacuation of the peculiarly smelling lochial discharge; which, on being discharged, bathes a wound in a highly vascular region where absorption goes on with great rapidity; the nurse, unless better informed than the greater number, taking especial care not to wash the

parts lest her patient should get a chill, but being still more especially careful to keep up a good temperature under the bedclothes, and thus to aid the decomposing process which had previously begun. Can one be astonished, then, if the above be the case, that after two or three days rigors occur, with fever and other symptoms of septic absorption?

In such cases, thinking the source of infection intra-uterine, I had been wont, up to a year ago, to use intra-uterine injections of Cond's fluid and water, which certainly relieved the symptoms; but, since my views have changed, I have simply ordered the nurse to use vaginal injections thrice daily, which, as far as my experience goes, answer equally well, with very few exceptions, and do not necessitate the medical attendant immersing his fingers in a septic fluid.

In conclusion, I believe that a frequent cause of autogenetic septicæmia, whether it is called a weid or puerperal fever, is a septic condition of a perineal laceration; and that it occurs more frequently in primiparæ, because in them perineal rupture is of frequent occurrence. But, since I believe in prevention rather than cure, I do not wait for the initial rigor, but, in case of the slightest amount of tearing, order the nurse, on getting the patient into bed, to carefully wash the pudenda and surrounding parts with tepid water, and to use a vaginal injection of Cond's fluid and water twice or three times daily for a few days, at the same time advising the patient to change to the lateral or prone position for a few minutes occasionally. Were this preventive treatment adopted in all cases, I believe blood-poisoning would be much less frequent.

My apology for this imperfect communication is, that although the facts may not be new, I believe they are not so fully appreciated as they deserve to be.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CHARING-CROSS HOSPITAL.

A CASE OF POISONING BY CARBOLIC ACID— DEATH—AUTOPSY.

(Under the care of Dr. GREEN.)

[For the following notes we are indebted to Mr. E. M. Harrison, M.R.C.S. Eng., Resident Medical Officer.]

Jane H., aged forty-five years, was brought to the hospital at about 2 a.m. on July 13. She had been in the habit of drinking heavily, and after a prolonged drinking-bout on the night previous to admission she had swallowed about three-quarters of a pint of the ordinary commercial undiluted carbolic acid. Her friends said that she had shown no symptoms of delirium or excessive pain after taking the poison, but that insensibility had followed almost immediately. When seen in the accident-room about half an hour after she had swallowed the carbolic acid, patient was quite insensible; her breathing was stertorous; the pupils did not respond to light, and were insensible to touch and somewhat contracted. There was a strong odour of carbolic acid about her generally, and the face about the lips was reddened as if by slight inflammation. Patient was not sick nor had she been so. The pulse was small and irregular, and the skin cold. The stomach-pump was at once used, and about half a pint of dark grumous fluid, smelling strongly of carbolic acid, was removed, but while under treatment patient died, death having ensued, as nearly as could be ascertained from the friends, in three-quarters of an hour after the poison had been taken.

The following is the account of the examination of the body made on July 15, thirty-seven hours after death:—"The body is that of a stout female of middle age. Rigor mortis persists in the lower limbs, and the lower jaw is firmly fixed. On the left side of the face there is a dark stain extending from the angle of the mouth to the ear of that side; there is an inflamed area along the margin of this stain, and the upper lip and the right angle of the mouth present a similar inflamed appearance. The tongue, larynx, trachea, œsophagus, and stomach, being removed *en masse*, present the following appearances: The root of the tongue and adjoin-

ing surface of the epiglottis present a glazed appearance, of the colour of recently cut lead. The surface of the œsophagus has a somewhat sticky character to the touch, and in its whole length has the same glazed greyish colour as the back of the tongue, the whole length of the tube looking as if its inner surface had been covered with a thin, smooth sheet of lead. The stomach is contracted into comparatively small bulk. On opening it in the usual manner, it is found to contain no fluid, but about a teacupful of undigested food. The interior of the organ is much congested throughout, except at a small area near the pyloric orifice; the mucous membrane except at that part is rough and of a whitish appearance and easily broken off, the whole having the aspect of dirty plaster or lime. This rough, nodulated condition of the stomach contrasts strongly with the smooth, glazed appearance of the œsophagus. Just at the pyloric valve the mucous membrane is similarly affected to that of the stomach, but, as noted above, a small area between the valve and the rest of the organ has escaped. The upper half of the small intestine shows much softening of the mucous surface, the appearances being similar to what is seen in the stomach, and being most marked in the duodenum. The large bowel is full of black-coloured fluid feculent material. The whole of the alimentary tract smells very strongly of carbolic acid. There is some swelling and softening of the larynx and upper two inches of the trachea, but the lower part of that tube and the lungs are normal. The heart is healthy; the right ventricle contains a small clot and some fluid blood; in the left ventricle there is also some fluid blood, and there is no trace of coagulum in any of the large vessels. Under the microscope the red corpuscles seem softened, and have a tendency to adhere in groups of three or four by their margins; no *rouleaux* can be seen; and several large white bodies, three or four times as large as white corpuscles, occasionally come into view. The liver is soft and pale, and evidently fatty. The kidneys are of normal size, unusually pale, and show no signs of recent irritation. The bladder is empty and firmly contracted."

Death in this case evidently resulted from shock, and followed so soon upon admission that no antidotes could be administered. Although the parts were so much softened, a careful examination showed that the tube of the stomach-pump had not inflicted any injury either on the œsophagus or stomach. Some doubt had been felt as to the wisdom of using this instrument after so large a dose of a strong corrosive; but the total insensibility of the patient prevented the administration of any other evacuant.

ST. MARY'S HOSPITAL.

CASE OF GANGRENE OF THE LUNG FOLLOWING PNEUMONIA—RECOVERY.

(Under the care of Dr. SIEVEKING.)

[For the following notes we are indebted to Mr. Lovell, Resident Medical Officer.]

Simeon G., aged twenty-nine years, a bricklayer, was admitted on March 12, 1879. His family history was fairly good, and he himself had had no serious illness until about twelve months before, when he began to be troubled with cough, and brought up large quantities of stringy mucus. He had also had hæmoptysis on several occasions. Lately he had lost flesh, slept badly at nights, and perspired a good deal. When admitted, patient was a well-nourished man. The skin was moist. Temperature 100°. The fingers were somewhat clubbed, and there was a slight tendency to incurvation of the nails. He complained of a dull, aching pain in the left side, where there was some tenderness, had considerable dyspnoea, and cough with very profuse and very offensive expectoration. The following are the notes of his physical condition on March 14:—"There is dulness at the left front, the right front is normal, and there is good resonance at both apices. There is dulness at the left base behind, and tubular breathing can be heard about the middle of the back on that side. The right lung seems healthy, the breath-sounds being somewhat exaggerated, but air enters freely everywhere. There is no difference in measurement between the right and left sides. The heart-sounds are normal, and the apex-beat and area of dulness of the heart are also normal; pulse 90, full and compressible. The tongue is coated with thick white fur; appetite is bad, and

the bowels are constipated. The urine is acid, specific gravity 1030; it contains no albumen or sugar, and is full of lithates."

The following extracts from the hospital reports show the progress of the case:—

March 18.—He expectorates large quantities of very offensive matter, and still complains of pain in his left side. He has had no rigors. Temperature last night was 101.4°. He has been inhaling creasote and sulphurous acid, and is taking a mixture containing cinchona and iodide of potassium. The whole of the left back is dull.

26th.—The temperature keeps pretty steadily at about 100° to 101°. The physical signs and the symptoms do not alter much, and patient's strength keeps up well.

April 8.—Over the left front the percussion note is almost tympanitic; no gurgling or cavernous sounds are heard. Temperature this morning is 99.4°; pulse 94. Expectoration as before.

18th.—Patient has been going on fairly well. About the middle of the left back the breathing is cavernous, and there is pectoriloquy. In front there is increased vocal resonance, with occasional rhonchi. Temperature ranges from normal to 100°. The expectoration is still offensive.

28th.—The whole of the left back is dull, with cavernous breathing about the middle. Râles can be heard all over the right back, and the breathing is somewhat tubular. Evening temperature, 102.8°. Since last note the temperature has risen twice to above 102° in the evening.

May 2.—Percussion note over the right back continues normal, except at the supra-scapular region, where there is slight dulness and prolongation of expiration. The dulness over the left back continues, and there is tubular breathing, with markedly prolonged expiratory murmur in the supra-scapular region. Cavernous breathing is distinct (as before) at the back, and can also be heard just below and outside the left mamma. The whole front of the chest is resonant, the left infra-clavicular region being hyper-resonant. The expectorated matter is as foetid as ever.

7th.—Patient sleeps well. Temperature rises from 99° to 101°. He takes a considerable quantity of milk, and enjoys it. The cavernous breathing is heard over a larger area. The expectoration is less in quantity and less offensive. Otherwise there has been little change in his condition.

10th.—There are no marked alterations in the physical signs, and the sputum is still profuse and foetid. He has not slept well lately on account of the cough.

12th.—Patient now sleeps better; the sputum is improving in character, and the breath-sounds are less tubular than before under the right clavicle.

16th.—The whole of the left back is now slightly resonant, the sputum is inoffensive; cavernous râles are still heard over the left base. Temperature from 99° to 101.4°.

20th.—Sputum inoffensive; percussion note is still not so clear over the left back as over the right, but it is improving. The breathing is still tubular below the left scapula, but the amphoric sounds have disappeared. There is vocal fremitus over both sides. The left back seen from behind shows distinct flattening below the scapula. From the mid-sternum to the spine on the right side just above the nipple the distance is sixteen inches and a half, on the left side fifteen inches and three-quarters.

27th.—On the evening of the 20th, after removal from the isolation ward to another, his temperature rose to 103°, but otherwise he has been steadily improving. Respiration over the left side is still very feeble, and there is comparative dulness both in the front and back. The sputum shows a tendency to become offensive to-day, and patient is occasionally sick after food.

June 3.—The cavernous breathing at the lower part of the left back is distinct, but the breath sounds over the whole lung are much improved. For the last four days the temperature has been normal. Measurement shows that there is retraction on the left side above the nipple to the extent of one inch and three-quarters, and below the nipple of one inch, as compared with the right side.

10th.—Patient has been up daily for about a week and seems very much better. Sputum is less abundant and healthier. He is occasionally sick after food. Temperature is very slightly above normal now in the evenings.

13th.—Patient feels weaker, and his temperature last night was 102.2°; this morning it is 100°. The cavernous breathing cannot now be heard at the back, and there is a fair

The treatment throughout aimed at supporting patient's strength, and the local condition was treated by inhalations. Cinchona and carbonate of ammonia were given. Cod-liver oil and vinum ferri were badly tolerated, but patient throughout took large quantities of milk.

OF the many interesting and able addresses delivered during the recent meeting of the British Association for the Advancement of Science, the two most remarkable were those by the President, Dr. Allman, and by Professor St. George Mivart. We have shown our appreciation of the value of the former of the two by publishing it *in extenso*, and we had intended accompanying the publication by some comments on the address. But we find that, from our point of view, there is so much that may be said concerning some of the subjects treated of, that we are compelled to defer our criticisms for a short time. We shall also perhaps take some other opportunity of noticing Professor Mivart's address on the work and teachings of the great French naturalist Buffon. But at present we must content ourselves with speaking of the address delivered by Dr. Pye-Smith, who presided over the department of Anatomy and Physiology. Dr. Pye-Smith made some few remarks on the oft-mooted subject of the endowment of research in biology, and had the courage to declare that he should be sorry to see it undertaken by Government. He admitted that such investigations are of public interest, that they are difficult and expensive, and that at present they languish for want of adequate support. But he objects strongly to endowment by Government. He would rather that research did languish with us, and that "we should indefinitely be dependent on Germany for our knowledge, than give up the local energy, the unofficial zeal, which has made England what it is." It would be far better, he holds, for the strength and the civilisation of the nation that the public should voluntarily—and he gives a broad hint on this point to the "wealthy town of Sheffield"—subscribe £1000 a year for the endowment of unremunerative researches, than that £10,000 should be given for the purpose by a paternal monarch or an enlightened department. To a great extent we agree with him. We doubt, indeed, whether it is altogether by reason of "want of adequate support" that research languishes.

We suspect that men who have a true thirst after original researches, and have the necessary talent for carrying them out, will always find or make the means and opportunities of so doing. And we fear that any large system of Government endowment would bring with it the dangers of fostering respectable and specious mediocrities, and of depriving talent and zeal of the spur supplied by difficulty and straitened means. But that would not tell against moderate or even liberal help being given by Government in a carefully guarded way. Be that as it may, however, all will agree with Dr. Pye-Smith that the State might be expected to show at the least a benevolent neutrality towards the workers at physiology, and not in any manner to place hindrances in the way of "a pursuit so laborious and costly, which demands trained workmen and the devotion of a lifetime, which is so important for the national wealth and health, and which by reason, by experience, and by testimony, is known to be the only guarantee for advance in the various branches of the healing art." Why is it, then, Dr. Pye-Smith asked, that institutions which owe nothing to Government assistance, and men who spend their time and talents in self-denying and unremunerative service for the public good, are not suffered to pursue their beneficent work in peace? And this question led to an able and eloquent defence of that employment of the use of experiments on living animals that is popularly known as vivisection. Dr. Pye-Smith brought forward no new arguments in support of the practice—they were not needed, and gave no explanation of it that was new—to medical men and men of science, at least. But his remarks may be of service in removing misconception from the minds of the public. And it must be admitted that he spoke on the whole with great moderation and forbearance; though it may perhaps be alleged by some that here and there—as when he suggested the possibility of the existence of "booby peers"—he, like the mother of "Young Lawrence," laid himself open to the remark that his

"— manners had not that repose
That stamps the caste of Vere de Vere."

He asserted that it is held that, within restrictions which all humane persons impose upon themselves, it is lawful to inflict pain or death upon animals for profit or for sport, for money or for pastime; and that property and sport are in England sacred things; but that the practices which they justify are deemed unjustifiable when pursued with the object of increasing human knowledge or of relieving human suffering; and he asks, Why is this so? What has induced so many amiable and otherwise sane persons to join in the outcry against physiology? First, he says, it is due to the most frequent cause of folly—ignorance; numbers of persons supposed to be educated are so entirely wanting in the most ordinary knowledge of natural science that they do not understand the necessity for experiments; and they cannot appreciate the difference between formal book knowledge, and real knowledge. Secondly, there is the vulgar dislike of whatever is not obviously and immediately useful. Thirdly, there is another class of persons in whom the opposition to physiological experiments seems to arise from sentiment—that is, excitable rather than deep feeling, uncontrolled by reason. This sentiment is related to a true and right feeling, but is the degradation of it. To many unaffectedly compassionate hearts, Dr. Pye-Smith observed, there is a peculiar pang caused by thinking of suffering which is deliberately inflicted, with only the justification of duty, instead of the excuse of ignorance and passion: they see in the helplessness of dumb animals an appeal for pity almost like that of childhood, and are justly indignant with the selfish cruelty so often exercised upon them. But that cannot justify an opposition to carefully conducted

physiological experiments on our "less precious fellow-creatures" for the purpose of learning how to grapple with human suffering which our present knowledge is all too feeble to prevent. A fourth reason for the opposition to experimentation is, Dr. Pye-Smith fears, an aversion to the methods and results of science, and while admitting that some excuse for this may have been furnished by the pretensions of false science, and perhaps the arrogance of much that is true, he argues that this can be no real reason for wishing to check and hinder the progress of accurate knowledge by observation and experiment. He did not attempt to deny that physiologists have been heedless, or even callous, in their experiments upon animals in time past, when men were strangely insensible even to human suffering and to the value of human life, or in countries where a healthy result of Christian civilisation is not yet seen in habitual gentleness to animals. He said that if any additional means can be pointed out by which the sufferings of animals in the cause of science can be diminished, physiologists will be anxious to adopt them; and if any abuse in any of their laboratories can be shown, they will hasten to correct it. And he took the opportunity of again assuring those who, while admitting the justness of the plea for the lawfulness of inflicting pain and death upon the lower animals for the sake of science and humanity, yet shrink from what it may involve, that the great majority of experiments upon animals are rendered painless, and that the remainder are mostly those experiments that are most immediately and directly subservient to medical art, and are generally productive rather of discomfort than of pain.

THE DUTIES ON WINE.

A SELECT COMMITTEE of the House of Commons has been examining witnesses for the purpose of inquiring "into the system under which Customs duties are now levied in this country on wine, and into its bearings on the fiscal and commercial interests of the country." The witnesses aptly represented the chief "fiscal and commercial" interests. Representatives were examined from the Customs, the Excise, and Board of Trade; eminent merchants and manufacturers, growers and shippers of wine, and distillers, each contributed their quota to the information of the Committee. Any evidence of a scientific character, as to the conditions which impress a peculiar character on each wine, or as to the probable effects of wine on the health and morals of the community, were conspicuous by their absence, and, in fact, were neither directly fiscal nor commercial.

One witness was good enough to say that he was quite sure that doctors know nothing about wine—an opinion in which we are very much inclined to concur; but we must add that the ignorance of the medical fraternity is fully shared by the fiscal and commercial world, although we gratefully acknowledge that the greatest advance in the modern appreciation of wine dates from inquiries made during the last twenty or five-and-twenty years for revenue purposes.

Until the researches instituted by the Customs under Mr. Gladstone, the popular knowledge as to the composition of wine was very vague and scanty. Of course wine contained alcohol; but how much alcohol could be developed by unaided fermentation, and how much was added to various kinds of wine, and why, were matters not well known either to the philosopher or to the economist. When it was determined to make the duty on wine dependent on the amount of alcohol it contained, the limit of 26 per cent. was taken as a rough practical limit dividing the natural from the artificially fortified wine. All wine below that standard was treated as natural and subject to a shilling duty per

gallon, whilst all wine over that and up to forty-two degrees was considered as artificially fortified and subject to a duty of half-a-crown per gallon. This arrangement was practically just and true, and founded on a wide basis of observation and experiment; but, as time passed on, two forcible objections were discovered to it. One was that the wines of the Australian colonies were often found to be above 26 per cent., and consequently were amerced with the half-crown duty, although they were as purely made and as free from adulteration as any of the nobler wines of France and Germany with which they worthily compete. We would instance especially the white wines, such as those well-known kinds connected with the names of Burgoyne, Patrick Auld, and Wyndham of Dalwood. There is good evidence that many wines continue to improve in alcoholic strength as well as in flavour for some time after the fermentation is nominally complete. Whether this depends on the conversion of a residuum of sugar, or upon the *exosmosis* and evaporation of water, are doubtful points, on which, no doubt, the Select Committee would have taken scientific evidence had it come within the scope of their duty. But a second grievance was brought forward by Spain. It so happens, as is well known, that the wine which we derive from that country is almost entirely of the fortified kind, varying from 31 or 32 to 38 per cent. The same is the case with the wine of Portugal, which is well known to be largely indebted to spirits for some of its characteristics; whereas the bulk of French and German wine, being nominally "natural," or at any rate not fortified over 26 per cent., is admitted at the shilling duty. Hence the Spaniards have got up a grievance; they affirm that the half-crown a gallon which we impose to protect our spirit duties is really a hostile measure levelled against them, and they use this argument as a justification for levying various heavy, and almost prohibitory, duties on English goods. Hence the calling together the Select Committee.

It is hardly a question for a medical journal to comment on the value of the "confident hope" or the "reasonable expectation" which some of the witnesses professed to entertain, that the Spanish Customs would be more favourable to English goods if the English wine duties were lower, neither is it our place to consider whether any loss to the revenue by such a reduction would be counterbalanced by an increased consumption and increased trade. The Committee propose to retain the duty of a shilling a gallon, but to allow wine of higher alcoholic strength than 26 (probably up to 36 or 37) to come in at that low rate. One fundamental fact is that the consumption of wine in this country is insignificantly small, and ought to be enlarged. Of the alcohol annually consumed in this country, not more than 3 per cent. is taken in the form of wine. We believe that a larger consumption of "sherry" would be good for the tastes, morals, and health of the community, and that it would lessen the use of spirits. We may refer, in passing, to the universal testimony of the witnesses that the better the sherry, the less alcohol it contains. Careless manufacture is concealed by brandy. Lastly, all experience points to the fact that the use of light or natural wine is most favourable to health, morals, and refinement. We should be glad to see sherry supplanting spirits, as we believe that light wine would supersede sherry. The public will get to prefer, in time, a wine that neither burns the throat nor fuddles the head: the Spanish wine-shippers at present say that they cannot make such a wine, and that it would not be liked. The fact is, that the sherry trade is a monopoly; the existing wine merchants are very well off and wish for no change. We wish a Select Committee could examine M. Pasteur on the question why Spain cannot send us powerful, dry, and well-fermented wines which need no fortification.

THE WEEK.

TOPICS OF THE DAY.

As it is to the Local Government Board that we now have to look for protection as regards the adulteration of our food supplies, it is satisfactory to learn from their report on the subject for the past year that, though the growing demand for excessive cheapness has a tendency to produce spurious imitations, yet, speaking generally, adulteration seems to be diminishing, and its character, where it exists, is much less noxious than formerly. There was, for instance, a decided improvement in the quality of the samples of milk analysed in 1878, as compared with the previous year, but more than one-fifth of the samples examined failed to reach the admitted standard of genuineness. About 7 per cent. of the samples of bread examined were reported against, for the most part in consequence of the addition of alum to improve the appearance; but of 600 samples of flour analysed, only 11 had been similarly adulterated. There were 904 samples of butter examined, of which number 116 were pronounced not genuine. In reference to the sale of a compound of foreign fats as a substitute for butter, the Board are not inclined to take any action so long as the article is sold for what it really is, since the public analyst for St. Giles' district reports that it is wholesome and nutritious, and certainly more palatable than common rancid butter. Coffee and mustard are still much adulterated, but if the purchaser is defrauded in respect of not obtaining the article he goes to buy, he is at least not injured in health by the substances employed to increase the vendor's legitimate profits. Pickles, jams, and confectionery were found in nearly all cases tested to be remarkably genuine; and out of 76 samples of cheap wines only 2 were reported against. Beer stood the test of examination satisfactorily, the use of noxious ingredients seeming to be nearly obsolete; similarly with spirits, water was found to be the principal adulterant, capsicum and oil of vitriol being no longer employed to give a fictitious strength. It would have been more satisfactory not to have been obliged to record that a fourth of the 491 samples of drugs examined were found to be adulterated. Many samples of violet powder were examined, and in no case was there any admixture of arsenic, although in several instances substances which would act as irritants rather than as sedatives were sold under the name of this article. As a summary it may be stated that in 1877 about 20 per cent. of the articles submitted for examination were found to be adulterated, whilst in the past year the ratio has fallen to 17 per cent., and even to less than 14 per cent. if spirits are excluded from the calculation.

Can anyone satisfactorily explain why Government work is never so well done as private work? We hear periodically of inspections of hospitals and barracks, and yet the following case has somehow to be accounted for. An inquest was last week held at the barracks, Plymouth, on the son of a staff-sergeant of pensioners, aged five years, who died under alarming circumstances. The child, who had been previously healthy, was taken ill at ten o'clock on Monday night with vomiting and violent purging, and died early the following Wednesday morning. Surgeon-Major Batho, the medical officer in charge, said he at first thought the child must have been accidentally poisoned; but on making a post-mortem examination he was satisfied that the cause of death was acute dysentery. He had never known a case terminate fatally so rapidly, even in Africa. In reply to a juror, who asked what was the state of the water in the barracks, Mr. Batho said he had inquired and found that the pipes supplying the father's quarters had been disused till lately, and consequently were very foul; on

examining the water he found worms more than half an inch long. He intended to have the water analysed, as the barracks would shortly be occupied by a large body of troops. The jury returned a verdict of "Natural death," but expressed a strong opinion that "someone" was to blame.

The Local Board of Aldershot having applied for powers to borrow £2000 for sewage works, Mr. S. J. Smith, C.E., last week attended to institute inquiries on behalf of the Local Government Board. North Town was one place mentioned where sewage works had been carried out at a cost of £551, included in the sum it was sought to borrow; but the inspector hinted to the Board that they could not possibly borrow a sum of money which had already been paid. On Redan Hill being mentioned as another place where it was intended to carry out sewage works, Mr. Trimmer, the owner of the land in that neighbourhood, opposed the scheme, on the ground that he had a private road with which it would interfere. The inspector mentioned that if he was the owner of a park, and it was considered necessary to cut through it for sewage purposes, the Public Health Act gave the Health Authority power to do so, providing that any damage done was paid for. At the conclusion of the inquiry Mr. Smith visited the places mentioned before making his report to the Local Government Board.

The meeting of the British Association, which was this year appointed to be held at Sheffield, was opened last week in that town, with the usual formalities, in the presence of a large assemblage who had gathered to hear the opening address of the new President, Professor Allman; and his hearers were well rewarded for their persistence in struggling into the Albert Hall through a pelting rain, by an able address judiciously tempered and toned down to the capacities of a mixed audience. Since the opening day the different sections have been busily employed in the varied work of the Association, and various excursions have been attempted which only required more settled weather to have been pronounced perfect successes.

As will already have been seen by our advertising columns, the examination of candidates for service in the Army Medical Department has been postponed until the end of September next. If we are to credit the universal report, the postponement is due to the deliberative requirements of the Treasury, a department which imperturbably refuses to be hurried, whatever may be the exigencies of the service. Undoubtedly both Colonel Stanley and the Director-General of the Army Medical Department have exercised a wise discretion in postponing the examination until the amended conditions of the service can be placed definitely before the younger members of the profession, but it would be more in the power of Colonel Stanley than of the Treasury Lords to render the service popular and insure an ample supply of candidates.

The Dutch Committee of the International Medical Congress, to be held at Amsterdam in September next, has made arrangements for an exhibition to be held simultaneously of medical and surgical instruments, of medical works and plates, and all that relates to medical science. Inventions made during the last five years, or improvements on the same, will be made prominent in the collection. The whole of the arrangements will be under the direction of Professor Tilanus and two coadjutors.

Dr. Farr and Mr. Edwin Chadwick have presented to the Council of the National Association for the Promotion of Social Science the report which they have drawn up on the present method of supplying the metropolis with water, and their suggestions for the purchase of the water companies' rights. They pronounce the defects of the present system

to be—firstly, the defective conditions of intermittent supply, and delivery by stagnant detention in butts and cisterns in close places, where the water is de-aërated, and absorbs the gases of putrefaction of cesspools, bad drains, etc., and is besides elevated in temperature and rendered unpalatable, so that the working-classes are driven to drink beer in preference, and bad water becomes a direct incentive to drunkenness. Secondly, that in the present condition of delivery there is a waste of upwards of three-fifths of all the water pumped into the metropolis. And lastly, that the conditions of the distribution on the intermittent system for a trading profit, and not as a public service, obstruct the due provision, by the means of hydrants, for the extinction of fires, and place the metropolis in an inferior position to several large provincial towns, such as Liverpool, Manchester, and Glasgow. By the purchase of the companies' rights the report calculates that an economy of upwards of £100,000 per annum would be effected in the expenses of administration, derivable from consolidated management on a public footing. The report concludes by urging the purchase without further delay. As an instance of the evil of delay, it is stated that in 1850 the works might have been purchased for £6,000,000. An improved system of extended distributory apparatus for the whole of the metropolis in its present magnitude is estimated at £8,000,000; but the present cost of the undertaking is estimated at £26,000,000; and at the same rate of progress it will in another decade amount to £37,000,000.

At a special meeting of the managers of the Metropolitan District Asylums, held on Saturday last, the reports from the various asylums and hospitals under the control of the managers were read, and showed an increase of fever cases. Up to the 22nd inst. the returns for the Stockwell Fever Hospital showed the number admitted during the month to have been 88; during the same period 12 died, 36 were discharged, and 112 remained under treatment. At Homerton Fever Hospital 72 were admitted during this month, 14 died, 12 were discharged, and 157 remained under treatment. The totals for the preceding month were—admitted 115, died 10, discharged 74, and remaining under treatment 183; thus showing an increase in the total number remaining under treatment of 86. The small-pox returns for the same period were more satisfactory; the number under treatment in all the hospitals is given as 116, against 123 during the preceding month, showing a decrease in the number remaining under treatment of 7, whilst the number of beds available for patients is 658.

THE HEALTH OF LONDON.

In London last week the births were 21, and the deaths 186 below the average numbers in the corresponding weeks of the last ten years. The annual death-rate from all causes, which had been equal to 17·6 and 19·4 per 1000 in the two preceding weeks, was 19·1 last week. During the last eight weeks of the current quarter the death-rate has averaged but 18·1 per 1000, against 20·2 and 24·1 in the corresponding eight weeks of 1877 and 1878; and the low rate of mortality has been mainly due to the unusually slight fatality of infantile diarrhoea. The deaths referred to diarrhoea, which had risen from 25 to 127 in the four preceding weeks, further rose to 174 last week, but were 73 below the corrected average for the corresponding week of the last ten years; in the corresponding week of the last three years the recorded fatal cases of diarrhoea were 198, 158, and 195 respectively. The 174 deaths last week, of which 128 were of infants under one year of age, and 34 of children aged between one and five years, were equal to an annual rate of 2·5 per 1000. Diarrhoea was proportionately twice as fatal (3·6) in East as it was in South London, where

the diarrhoea death-rate was 1·8. The deaths from diseases of the lungs, which had been 139 and 181 in the previous weeks, were 165 last week—36 above the corrected average. Eleven more cases of suicide were registered, the corrected average being less than 5. At the Royal Observatory, Greenwich, the duration of registered bright sunshine in the week was 17·5 hours, the sun being above the horizon during 99·8 hours.

MANCHESTER ROYAL INFIRMARY.

At the monthly meeting of the Board of Management of the Manchester Royal Infirmary, held on Monday, August 25, the resignation of Mr. George Bowring as Surgeon to that institution was read and accepted. Mr. Bowring's name first appears on the honorary staff of the Infirmary in the latter part of 1855, when, after a well-fought contest, he was elected to the now obsolete post of Dispensary Surgeon. In that capacity he served for the long term of sixteen years, at the end of which period a vacancy was occasioned by the death of Mr. Dumville, and Mr. Bowring became full Surgeon. This was in July, 1871, and now, after only eight years' tenure of the more coveted appointment, it has become his duty to resign it, in accordance with a rule of the institution which fixes the age of sixty as the limit beyond which the Physicians and Surgeons shall no longer continue to hold office. The only consolation which the Board, on such occasions, has it in its power to offer consists in appointing the retiring officer a member of the consulting staff, which was accordingly done in the case of Mr. Bowring. At the same meeting of the Board the Senior Assistant-Surgeon, Mr. Walter Whitehead, was unanimously elected to the full Surgeoncy, a vacancy being thereby caused for an Assistant-Surgeon. The new rules require that all candidates for this appointment shall be Fellows of the Royal College of Surgeons of England; the names of three gentlemen are mentioned as being already in the field.

THE VITAL STATISTICS OF SHEFFIELD.

In the Section of Economic Science and Statistics, during the meeting of the British Association, Dr. T. W. Hime, Medical Officer of Health, Sheffield, read an interesting paper on the vital statistics of that town, giving a brighter view of it than is generally believed in. He states that overcrowding is very rare, that cellar dwellings are unknown, and almost every family has an entire house, a most important agent in securing physical as well as moral health. Owing to the impervious clay existing below the subsoil, surface wells used to be very common; most of them are now closed, and the water-supply is almost exclusively drawn from the water company, which has large reservoirs to the west. The density of the population in general in the borough is only 15·1 per acre; but a large part of the area is wild moorland, never built on, while some parts are closely packed. There has, however, been a considerable improvement in the mortality of late years. In fact, Birmingham is the only town of equal size which has had so low a death-rate during the past nine years, if London be excluded. Zymotic and local diseases are the most fatal in Sheffield. Hitherto no hospital has existed in the town for the treatment of infective fevers, but the Sanitary Authority is building one which will, when finished, be one of the most complete in the kingdom. Among the local diseases those affecting the lungs are the most fatal, owing, in a large extent, to the nature of some of the trades of the town. During the ten years 1851-60 disease of the lungs amounted to 4·247 per 1000; and during 1862-71 to 4·867 per 1000. Phthisis or consumption—a disease very fatal in Sheffield—was not included in this. During 1851-60, 3·061 per 1000 fell victims to consumption—a rate which was 0·364 in excess

of the average for all England and Wales. An epidemic had often made considerable progress in the town before the Sanitary Authority became aware of its existence; but it was to be hoped, Dr. Hime said, that the time was near at hand when hygiene would be a compulsory subject in every school, and that as much time would be devoted to the study of the living body, and how to maintain it in health, as was given to the study of dead languages and of inert matter.

NEWCASTLE-UPON-TYNE LUNATIC ASYLUM.

THE fourteenth annual report of the Newcastle-upon-Tyne Borough Lunatic Asylum for the year 1878, compiled by the Medical Superintendent, Mr. R. H. B. Wickham, gives the number of admissions during the year referred to as 99, and of these the Union of Newcastle-upon-Tyne contributed 72 (being more by 14 than in 1877), the remainder consisting of pauper patients from the Durham County Asylum, for whom it was necessary to procure special accommodation during the progress of building operations in the latter institution. The discharges were 47, of whom 25 were recovered, and 22 were relieved and not improved. The percentage of recoveries was 25·2, the smallness of the figures being due in part to the very unfavourable nature of many of the new cases received, but chiefly to the fact that the patients admitted from the Durham Asylum belonged to the incurable class, and the rule at Newcastle is to calculate the recoveries on the number of admissions. Of many of those admitted during the past year it has to be recorded that their earlier removal to an asylum would have increased their chances of recovery, and would certainly have tended to the prolongation of their lives. The deaths were 30 in number, being a percentage of 11·8 of the average number daily resident, and of 8·9 of the total number under treatment. These numbers, though little in excess of the average of the asylums of England and Wales, do not compare favourably with those of late years in this Asylum, but the state of the health of the bulk of the patients when admitted left nothing else to be expected. The average cost for each patient per week during 1878 was 11s. 2d. per head.

THE COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES IN BOLTON.

SOME interest naturally attaches to the annual report of the Medical Officer of Health for the borough of Bolton for the year 1878, on account of its having been the first town in the United Kingdom to obtain compulsory powers for insuring the notification of cases of infectious disease. In referring to this subject in his report, Mr. Edward Sergeant says:—"This compulsory notification has, in my opinion, largely contributed towards diminishing the number of deaths from fever and small-pox. These diseases are preventable, and perceptibly influenced by sanitary measures, if information be obtained sufficiently early. The general zymotic rate for the year has not yet been markedly affected by this provision, though I believe when it has settled down into the rough working order we shall soon be able to note a satisfactory decline. The compulsory provision has now been in operation a year, and although obviously all the cases of infectious disease were not reported, a large proportion were notified—sufficient perhaps to satisfy one of its ultimate benefit." It would appear, therefore, that sufficient time has not yet elapsed to enable a definite opinion to be given as to the working of this piece of legislation; but as a proof that its advantages are fully believed in, Mr. Sergeant notes that the action of Bolton in this direction has already been followed by Nottingham, Jarrow, and Burton-on-Trent, whilst Blackpool, Derby, Exeter, Leicester, South Shields, and Warrington are now seeking similar

powers. It is a little singular that although Bolton was the first town to move in the matter of compulsory notification of cases of infectious disease, the authorities have, up to the present, failed to provide a hospital for isolating such cases. The workhouse hospital is indeed used for very severe cases—such as small-pox and typhus fever; but Mr. Sergeant thinks if a suitable hospital were provided many people would be inclined to take advantage of it in such diseases as typhoid fever and scarlatina, now entirely treated at home.

THE PUBLIC HEALTH.

DURING the week ending Saturday, August 23, 5606 births and 2955 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 18 deaths annually in every 1000 persons living. The annual death-rate was 15 per 1000 in Edinburgh, 17 in Glasgow, and 23 in Dublin; small-pox caused three more deaths in Dublin. The annual rates of mortality per 1000 last week in the twenty English towns, ranged in order from the lowest, were as follows:—Portsmouth, 13; Birmingham, 14; Hull, 15; Bradford, 15; Nottingham, 15; Bristol, 15; Sheffield, 16; Oldham, 16; Wolverhampton, 17; Manchester, 18; Plymouth, 18; Brighton, 18; Sunderland, 18; Newcastle-upon-Tyne, 19; Norwich, 19; London, 19; Leicester, 19; Leeds, 20; Liverpool, 20; and the highest rate, 21, in Salford. The annual death-rate from the seven principal zymotic diseases averaged 3.9 per 1000 in the twenty towns, and ranged from 0.0 in Plymouth and 0.7 in Newcastle-upon-Tyne and Hull to 5.1 and 5.4 in London and Leicester. Scarlet fever showed the largest proportional fatality in Leicester and Oldham. Diphtheria caused 11 deaths in London, but only 2 in the nineteen provincial towns, and 4 more fatal cases of small-pox occurred in London, but not one in any of the nineteen other towns. The deaths referred to diarrhoea in the twenty towns further rose to 258 last week, but in the corresponding weeks of the three years 1876-7-8 the fatal cases were 756, 452, and 709 respectively. Diarrhoea was proportionally most fatal last week in Leeds, London, and Leicester.

THE PARIS MATERNITÉ.—Narrating to the Académie de Médecine a successful example of Porro's Cæsarian operation, with removal of the uterus and ovaries, M. Tarnier attributes a great part of his success to the rigorous employment of the Lister method. He also protested strongly against the accusations brought against the Maternité in which the operation was performed, on account of the great mortality and pestilential miasmata prevailing there. Whatever might have been the case formerly, such charges have no foundation now. The establishment now consists of two parts, the Grande Maternité, where the mortality is now one in fifty, instead of, as heretofore, one in twenty, and the isolated Pavillon, in which five recent ovariectomies have been performed with success.—*Gaz. Hebdomadaire*, August 22.

DEATH OF PROF. JULIUS KLOB.—The Vienna University has lost by death one of its best sons. Dr. Julius Klob has just died, aged forty-nine, at Ischl, where he had gone for his recovery, after a short illness from typhus, or, as some say, from pyæmia. He was Professor Extraordinary of Pathological Anatomy, and also one of the most popular practitioners in Vienna. Perhaps he was the most distinguished of Rokitsky's pupils, whose assistant he was from 1855 to 1861. Medical science owes several works of great merit to him, foremost amongst which is his "Pathological Anatomy of the Female Sexual Organs"; and special attention should be paid to his "Pathologico-Anatomical Studies on the Nature of the Cholera Process," which details investigations on this subject of the highest importance. We fear that Klob received too little recognition from the University in which he worked so well; and yet the Vienna Medical Faculty is not too rich in men of his stamp.—*Berlin Klin. Woch.*, August 4.

HOMES FOR CONVALESCENTS FROM ACUTE INFECTIVE DISEASES.(a)

THE question which has been proposed for discussion on the present occasion—that of the management of the convalescent so as to limit or prevent the spread of epidemic disease—is eminently suggestive, and one which comes home to every thoughtful practical physician.

So important is the inquiry in which we are engaged that I would shrink from the responsibility of opening this discussion, did I not feel that the compliment paid me in asking me to do so was a recognition of my official connexion with the largest epidemic hospital in Ireland—Cork-street Fever Hospital and House of Recovery, Dublin—rather than of any special personal qualification for the duty imposed upon me.

It is probable that subsequent speakers may suggest other methods of dealing with the convalescent from acute infective diseases; but, as the result of mature consideration, I have come to the conclusion that the only feasible method of attempting to limit the spread of epidemic disease is by a system of complete *isolation* of the sick and convalescent—using the word "isolation" in the most extended sense. The convalescent from an infectious disease must be kept separate until the days of his purification are accomplished—in the words of the Mosaic law, "He shall dwell alone; without the camp shall his habitation be" (Leviticus xiii. 46). Nor will it suffice to isolate the convalescent himself—his wearing apparel and other possible *fomites* must also be prevented from doing harm, by thorough disinfection. Sometimes, indeed, nothing short of destruction by fire can neutralise the danger.

In hospital practice I have had frequent opportunities of recognising the want which exists of suitable accommodation for infectious convalescents. Although we are just now primarily concerned with the protection of the healthy from the risk of infection, I may be permitted to advance four reasons why in the interest of the convalescent themselves we should provide for them a temporary home *outside the hospital precincts*:—

1. The health of convalescents is often seriously injured if they are kept in hospital beyond a certain period in their progress towards recovery. In the twelve months ending March 31, 1879, upwards of 1500 small-pox patients passed under my observation in the epidemic wards of Cork-street Fever Hospital. Often and often was I an eye-witness of the untoward effects of a prolonged sojourn in the necessarily tainted air of the hospital. Abscesses, bed-sores, diarrhoea, pleurisy, pneumonia, scarlatina, were sequels of the disease in too many instances, and I could not help thinking how different it might have been had the sufferers been removed in good time to a purer air.

2. The surroundings in even the best managed epidemic hospital cannot fail to exercise a depressing influence on the minds of patients who are recovering from illness.

3. It should not be forgotten that beds are being occupied by the convalescent which may probably be urgently required at that very moment for other patients in the earlier stages of their sickness.

4. Lastly, it is most desirable that those who toil for their daily bread should not leave the hospital to return at once to their wonted employment. It frequently happens that the sudden strain in this way put upon the bodily powers not yet recovered from the deadly conflict with sickness leads to disastrous results—the least of which, perhaps, is an attack of fever, while in some instances the seeds of permanent organic disease are thereby sown.

So far as to the patients themselves. No one will need to be told how important it is in the interest of the public health that the convalescent from infectious maladies should be kept apart from the healthy until the risk of infection is over. This no less applies to private than to hospital patients. How can the needful isolation be kept up except

(a) "How are we to deal, by Isolation or otherwise, with Convalescents from Acute Infective Diseases, so as to Prevent the Spread of Disease?" Read before the Public Medicine Section of the British Medical Association at the forty-seventh annual meeting held at Cork, August, 1879. By John W. Moore, M.D., M.Ch. Dub., F.R.C.S.P., Physician to the Meath Hospital and to Cork-street (Fever) Hospital; Diplomate in State Medicine of Trinity College, Dublin, etc.

through the medium of convalescent homes? I know an instance in which one of two sisters got scarlatina. She was treated in an isolated room at the top of a large house, and strict quarantine was maintained for fully six weeks. At the end of that time her younger sister, who had remained safely in the house all the time, met the convalescent by accident, and in a few days was herself ill of scarlatina. Very different might the result have been had the sister first attacked been removed to a convalescent home in due time. In a word, patients in private practice both require "change of air" and should be removed in order to insure the safety of the remaining members of the family.

At the present time I believe that, in Ireland at all events, no suitable or adequate accommodation exists for either hospital or private patients recovering from infectious diseases. For the reasons already specified, the convalescent wards attached to Poor-law union or to epidemic hospitals, if adequate, are not suitable as temporary residences for the convalescent poor, or labourers, or artisans. In the case of private patients, the stringent provisions of the existing sanitary codes [*cf.* "Public Health (England) Act, 1875," sec. 128, and "Public Health (Ireland) Act, 1878," sec. 145], which inflict a substantial penalty on persons letting or taking houses making false statements as to infectious disease, are very properly an obstacle in the way of obtaining lodging accommodation for such patients during convalescence.

If, then, it is conceded that convalescent homes are not merely a desideratum, but a necessity, in our warfare with disease, we have now to consider certain points in connexion with the establishment of such institutions for the reception of persons who have been suffering from infectious diseases.

The questions which arise are the following:—

1. For what epidemic diseases should convalescent accommodation be provided?
2. What form of "convalescent home" would be most appropriate?
3. The most suitable site and the best plan of buildings?
4. The source of the funds required for the establishment and maintenance of convalescent homes, and how far should such institutions be self-supporting?
5. The constitution of the management and staff?

I will endeavour to answer these queries to the best of my judgment and with all possible brevity.

(1.) The epidemic diseases for which convalescent accommodation is required in the interest of the public health are—(α) Small-pox; (β) Scarlatina; (γ) Typhus Fever; (δ) Measles. I have arranged them in the order of their relative importance as "preventable" diseases. The long continuance of the period of desquamation in small-pox and scarlatina, the well-known activity of the contagia of these affections during that period, and the manifold dangers to health and life which they bring in their train, render it imperatively necessary that the convalescents from these diseases should be kept isolated for a considerable time.

In regard to typhus, experience teaches that once convalescence has fairly set in there is but little risk of the patient himself communicating the disease to the healthy. The poison is in this stage usually conveyed by means of infected clothing. "Still," writes Dr. Murchison, "it is satisfactory to know that the poison must be highly concentrated to be transmitted by *fomites*, and that it is rendered inert by cleanliness and free ventilation." (b) Nevertheless, the typhus convalescent needs a temporary home, where, free from care and daily toil, he may recruit his shattered strength.

Lastly, as to measles. The poison of this zymotic possesses such strong infective power that very few persons escape an attack. Indeed, it is the exception for one to pass from childhood to adolescence without having suffered from measles. This being so, it might seem useless to provide accommodation for the convalescent from this disease. Far from it, for in the first place the ill-health which so often follows measles is best combated by change of air and scene; and, in the next place, it is our bounden duty as physicians, not less than as sanitarians, to take every possible precaution against the spread of any epidemic disease.

(2.) Assuming, then, that it is needful to provide accommodation for patients recovering from small-pox, scarlatina, typhus, and measles, we have next to consider what form of convalescent home would be most appropriate—a large

central establishment, or several separate licensed houses. My own opinion is that a general convalescent home for infectious cases (such as I shall presently describe) would meet all the requirements of the case. But it is a fair subject for debate whether private patients, at all events, might not more conveniently and advantageously be accommodated in isolated convalescent homes, analogous to private lunatic asylums, duly licensed like them and conducted on similar principles.

(3.) We now come to what is probably the most important question of all—the most suitable site and the best plan of buildings for a general convalescent home. In discussing this question, I will consider the probable requirements of a city of some 300,000 inhabitants—such as Dublin,—presuming that the plan I propose can be adapted to the requirements of other towns of different sizes, *mutatis mutandis*.

First, then, as to site: It should be rural. The convalescent home should be situate in the country—not more, however, than a mile or two from the outskirts of the town, because of the difficulty of conveying convalescent patients to even moderate distances. The site should be an open space of at least ten or twelve acres in extent, so as to minimise the risk of infection to the neighbourhood, and also to permit the patients to take exercise in properly planted and commodious grounds. The site should, if possible, slope gently towards the south, and there should be an abundant supply of good water, for drinking, cooking, washing, and flushing purposes.

Secondly, the buildings should be arranged in five groups: one central group for the management, four isolated groups of apartments for the reception of convalescents from the four diseases already named. For the following plan I am indebted to my friend Mr. George C. Henderson, C.E.:—

The home proposed by him stands on ten acres of ground, the southern side facing the high road. From two entrance lodges a semicircular drive leads to a central isolated block of buildings—the management. There are four isolated groups of wards for the reception of convalescents from the four diseases above mentioned. Each group stands on about two acres, and has its own recreation ground. These groups of buildings are all separated from the public thoroughfare by a strip of garden. In case of exceptional pressure on the available accommodation, provision can be made at the north-west and north-east corners of the site for the construction of temporary additional wards. Each of the blocks of buildings is placed due north and south, and consists of two stories—the ground floor being for males, the upper floor for females. On each floor are wards for the reception of hospital and private patients, who can be completely separated. The accommodation on each floor is for ten hospital and six private patients. The dormitories in all cases afford 2000 cubic feet per bed. There are two day-rooms on each floor, as well as two sets of lavatories and water-closets, and one bath-room. On the lower floor is a kitchen, from which provisions are sent to the attendants' room on the upper floor by a lift. It will be seen from the foregoing that Mr. Henderson's design provides accommodation for 128 patients—namely, forty-eight private and eighty hospital patients. The cost, roughly estimated, of such a convalescent home as that now described would probably amount to £20,000, exclusive of the purchase of the site.

(4.) We have next to consider the source from which the funds required for the establishment and maintenance of the home are to be derived. There are three possible sources of revenue—(α) voluntary contributions, (β) fees paid by private patients, (γ) the rates.

In England, perhaps, a wealthy and generous public may, of their own free will, provide funds sufficient to start and maintain convalescent homes for infectious patients. In Ireland, I fear, we cannot depend on voluntary contributions. The experiment has very lately been made in Dublin, and has signally failed. So long as the gaunt spectre of an epidemic overshadows the country, fear may unloose the purse-strings of the people; but with the passing of the danger, the springs of liberality dry up, or—let us charitably assume—are diverted into other channels. Within the past few months Dublin, not only menaced but attacked by a destructive outbreak of small-pox, was asked to give at least £4000 to found a convalescent home. In response to the appeal only £1200 was collected after immense labour and expense and the lapse of several months.

(b) "Continued Fevers of Great Britain," second edition, page 90.

The fees paid by private patients in a general convalescent home can never be regarded as a *profitable* source of income. They should not exceed the amount of the expenses incurred(c) through the patients' sojourn in the institution—probably from £1 to £1 10s. or two guineas per week.

We have then to fall back on the rates as the only fixed and adequate source of income. The sanitary codes of England and Ireland contain ample provisions for the levying of rates to supply the funds needful for the construction and maintenance of epidemic convalescent homes. In proof of this, I have only to refer to Sections 12, 153, and 155 of the "Public Health (Ireland) Act, 1878." Section 12 empowers the Local Government Board, by provisional order, to form a united sanitary district for any purposes of the Act, the expenses being a first-charge on the rates leviable in the united district in pursuance of the Act. Section 153 empowers the Local Government Board to combine boards of Poor-law guardians for the purposes of the Act relating to prevention of epidemic disease, while Sections 155 and 156 give power to any sanitary authority as such to provide hospital accommodation for sick and *convalescent* persons, being inhabitants of the district. Similar provisions are contained in the English sanitary code,(d) but only so far as relates to hospitals.

The incidence upon the rates of all the expenses of construction and maintenance should not, at the same time, prevent a generous public from expressing their interest in, and showing their goodwill towards, an epidemic convalescent home. They might fairly be asked to provide a library of useful and entertaining books, to supply newspapers and periodicals, flowers for the gardens, pictures for the wards and day-rooms, and so on.

(5.) The last point for consideration is the *management* and *staff* of the institution.

The management should be vested in an elected representative committee, consisting of members of the participating sanitary authorities. In this way all sectarian difficulties would be most easily surmounted. The committee should meet weekly in a board-room in the central group of buildings.

The staff should be partly resident and partly non-resident. Living on the premises should be a resident medical officer, a lady superintendent, nurses, wardmaids, general servants, and porters. There should also be non-resident chaplains for the different denominations, visiting physicians and surgeons, and a secretary. As to medical attendance, private patients should be at liberty to send for their own physicians on such terms as they and their physicians had mutually agreed upon.

For this imperfect and hasty sketch I have to crave the indulgence of the section. My object in making the foregoing observations is simply to open the discussion; and, in doing so, to suggest topics for the consideration of subsequent speakers in the debate. The plan I have proposed is, no doubt, a costly one. But the duty of the physician who is true to the traditions of his noble profession is calmly and thoughtfully to devise means whereby, under Providence, the health of the people may not merely be restored, but be preserved.

In one scale of the balance lie the gold and the silver; in the other are precious lives of fathers, mothers, children, rescued from disease, or, it may be, death. Can we doubt for a moment to which side the beam of the balance will incline?

PREVENTION OF MAMMARY ABSCESS.—Dr. Shepherd strongly recommends the following old woman's remedy, much used in country parts:—When the gland becomes indurated and painful, and the skin has a glistening appearance, denoting approaching suppuration, take a piece of ordinary sticking-plaster, large enough to cover the breast, cut it into a circular shape, and make a hole in the centre large enough to allow the nipple and half the areola to be seen. Having warmed it, apply it so as to cover the whole breast, with the nipple protruding through the aperture, and deeply nicking the circumference of the plaster at distances of an inch, so as to admit of its fitting accurately. It should be left on until the breast softens or the plaster ceases to exert even pressure.—*Canada Med. Jour.*, July.

(c) See "Public Health (Ireland) Act, 1878," section 156.

(d) See "Public Health (England) Act, 1875," Sections 131 and 139.

FROM ABROAD.

THE PARIS HOSPITAL MORTALITY RETURNS.

In his report (*Union Méd.*, July 31-August 14) on the prevalent diseases in the Paris hospitals during the second quarter of 1879, Dr. E. Besnier observes that the quarter was very remarkable for the depression of the mean temperature, this having been only 11.7° C., in place of the mean, 13.8° C., calculated from 1802 to 1872. The amount of the fall of rain was much greater, viz., 158 millimetres, as compared with the mean, 135 millimetres, calculated from 1804 to 1872. These are well-marked atmospheric conditions, the immediate action of which is very manifest on prevalent disease, and the ultimate results of which will perhaps be still more strongly characterised. The *general mortality* of the civil hospitals and hospices during the quarter was represented by 3662 deaths, and is much higher than the mean (2997) of the seven preceding years and of the first quarter of 1879.

1. *Affections of the Respiratory Organs.*—Omitting the cases of phthisis, concerning which some error in the returns has taken place, there were 678 pneumonias, with 203 deaths, or 29 per cent.; 1345 bronchites, with 69 deaths, or 5 per cent.; and 361 pleurisies, with 49 deaths, or 13 per cent.—figures which correspond pretty closely with those of the mean of the eleven prior years.

2. *Diphtheria and Croup.*—Conformably to the law of seasonary evolution, diphtheria has undergone during the second quarter of the year the diminution that was predicted, there having occurred 468 deaths in Paris in lieu of the 529 of the preceding quarter. Another important fact, the occurrence of which was also predicted, is that the "multi-annual curve" of diphtheria, which had attained in 1877 the most elevated point ever observed in Paris, continues slowly but certainly to decline, the mortuary coefficient of each of the quarters of 1878 being inferior to those of 1877, and the two quarters of 1879 being inferior to those of 1878. In the hospitals of Paris, during the first quarter of 1879, there were admitted 233 cases of croup and diphtheria, with a mortality of 181, or 78 per cent.; and in the second quarter 236 cases, with 171 deaths, or 72 per cent.

3. *Eruptive Fevers.*—Dr. Besnier gives a table which furnishes a comparative view of the course of these affections during the first and second quarters of the year. Of *small-pox* there were admitted during the first quarter 273 cases, of which 54 proved fatal; during the second quarter there were 525 cases, with 74 deaths. Of *measles*, in the first quarter there were 75 cases and 6 deaths, and in the second 203 cases and 45 deaths. Of *scarlatina*, there were 39 cases with 3 deaths in the first quarter, and 40 cases with 2 deaths in the second. (The great difference between Paris and London as regards the comparative severity of measles and scarlatina as a cause of mortality is, as usual, remarkable.) Of *erysipelas* (which Dr. Besnier introduces apologetically among the eruptive fevers, for the sake of comparison), both medical and surgical, there were 200 cases with 21 deaths in the first quarter, and 207 cases with 24 deaths in the second. The hiverno-vernal exacerbation of *small-pox* has attained a considerable intensity in 1879, but both public and medical opinion have been more alarmed than they have had any occasion for being. After attaining its maximum in April, the disease began to decline in May, and this declension will continue. This is the law and rule of its seasonary progress. The conclusion to be drawn from it is, that the fears which have prevailed should not be entertained on account of a variolic exacerbation which takes place at its proper time, i.e., in winter; while an epidemic of small-pox bursting out entirely beyond seasonary laws, i.e., in summer, is a very menacing affair. "These are precise and practical deductions, the exactitude of which is proved in proportion as proofs can be accumulated, and which we shall not cease to pursue to demonstration that is assuredly necessary seeing that we have not as yet been able to attract public attention to them." The following is the total number of deaths from small-pox which have taken place in the different arrondissements of Paris during 1879:—March, 44; February, 38; March, 69; April, 105; May, 100; and June, 60: total for the first quarter 151, for the second 265, and for the half-year 416.

4. *Typhoid Fever.*—The accidental and unusual exacerbation observed during the first quarter of the year was

extinguished in the second, and, according to the absolute and invariable law of the disease, the number of cases became greatly diminished in the spring. From 320 deaths from typhoid, throughout entire Paris, during the first quarter, these descended to 187 in the second quarter. The principal seat of the anomalous winter exacerbation occurred in the Palais-Bourbon arrondissement, in which the sheet of subsoil water undergoes great alterations in relation to its altitude and its immediate vicinity to the river. Moreover, this district is an essentially military one, and had itself furnished 72 of the deaths from typhoid during the first quarter—that is, more than a fifth of the entire mortality from this cause for the whole metropolis. In this quarter it has followed the invariable seasonary law, and has only furnished 25 deaths from typhoid.

INTRAVENOUS ALIMENTATION.

At a meeting of the Medical Society of the State of New York, Dr. Fowler read an important paper (*New York Med. Record*, July 5), in which he proposed that peptones should be introduced directly into the circulation in which nutrition could not be properly sustained by gastric or rectal alimentation. Blood may be transfused when the vessels after severe hæmorrhage require distension, and in that way it had often been successful, but, being itself a tissue, it is not capable of assimilation, like it is when taken into the stomach. The proposition of substituting milk for blood in transfusion is founded on a false analogy in the composition of the casein of that fluid and of chyle. Milk globules are enclosed in an albuminous envelope, and are soluble only at a temperature of 114° Fahr. Peptone or digested albumen is the substance which Dr. Fowler believes best suited to sustain nutrition when introduced into the circulation. This is obtained from finely chopped beef by continuous boiling for forty-eight hours, under pressure, with a weak solution of hydrochloric acid. The reactions of this albuminose, as distinguished from albumen, are very marked, and the new product is not precipitated by heat. Dr. Fowler had derived much evidence of its nutritive value when transfused, from experiments on cats and rabbits, large quantities being assimilated, as shown by its non-appearance in the urine. He had also employed it in a case seen with Dr. Mundé, and with permanently beneficial results. About three ounces of the liquid, corresponding to six ounces of meat, were thrown into the veins, and the vomiting and other symptoms dependent upon perilous hæmorrhage from cancer of the uterus rapidly subsided, the patient being soon able to take food by the stomach with comfort. Mr. Mundé related this case in detail, and also stated that about an ounce of the albuminose having escaped into the cellular tissue was rapidly absorbed. Dr. Dalton observed that the name *intravenous injection* was a good one, as suggesting the difference between the object aimed at by the injection of peptones and that sought by the transfusion of blood. In cases in which there had been great loss of blood, in which there was no inability to take food, and in which there was simply a deficiency in the quantity of blood, it was his conviction that nothing had been found comparable with blood for intravenous injection. A certain quantity of blood was required to sustain life and keep the machinery in motion, and when from loss of blood this machinery was about to cease to move, the introduction of a small quantity of blood stimulated it to renewed action, in a manner we did not understand. In cases, however, in which there was a demand for nutrition another condition of things existed. In such cases transfusion had not succeeded. The difficulty of the operation which had been advanced as an objection to the employment of transfusion should not, in Dr. Dalton's opinion, be considered for a moment. With respect to the threatening symptoms which sometimes manifested themselves afterwards, such as delirium, pains in the head, difficulty of respiration, etc., he had a strong suspicion that their development much depended upon the mode of performing the operation. The injection of some bubbles of air did not constitute the most dangerous part of the operation, for that might occur without producing fatal results; but in some manner the heart's action was arrested from other causes—such, perhaps, as the fact that the fluid was a little too warm or a little too cool, or it was thrown in a little too rapidly, or was a little too strong or a little too weak. He believed that these disagreeable symptoms were in some way connected with the mechanism of the operation.

REVIEWS.

A Manual of Midwifery for Midwives. By FANCOURT BARNES, M.D. Aber., M.R.C.P. Lond., Physician to the General Lying-in Hospital, etc. With illustrations. London: Smith, Elder, and Co. 1879. Pp. 177.

THIS work, by one who inherits a name which must always command respect wherever midwifery is studied, does not call for detailed criticism. It will be enough for us to say, that if the author has erred, it is on the side rather of putting into his volume more than is needed, than of omitting anything important. The style is clear, and the book will, doubtless, be useful to the persons for whom it is intended.

Lectures on the Diseases of Women. By CHARLES WEST, M.D., F.R.C.P., late President of the Royal Medical and Chirurgical Society, and of the Obstetrical Society of London, etc. Fourth Edition, revised and in part re-written by the Author, with numerous additions by J. MATTHEWS DUNCAN, M.D., LL.D., F.R.S.E., Obstetric Physician to St. Bartholomew's Hospital. London: J. and A. Churchill. 1879. Pp. 676.

It is seldom that the fourth edition of a well-known work calls for more than the briefest mention. The case of the volume before us is somewhat exceptional, in that fifteen years have passed since the publication of the edition which preceded this one, during which period the author of the book has ceased to devote special attention to its subject: and that the edition now offered to the profession has been produced with the help of one of the most eminent living physicians engaged in the department of practice of which the book treats.

It is not now necessary to call attention to the merits of Dr. West's work. It has long been recognised as one likely to become a medical classic. Its literary style, marked as it is by an eloquence rare in medical literature, and the high tone which throughout pervades it, as well as the extent of the knowledge displayed in it, and the independence and soundness of the author's judgment, gave it, when first written, the highest place among works of its class. All we have to do is to express an opinion as to how far the changes in it make it adequately represent the practice of to-day.

The alterations and additions which have been made are much fewer than might possibly have been expected. The fact that there is so little in which remodelling has been needful, is no small testimony to the excellence of Dr. West's judgment, and to the fulness of the information which the former editions of the book contained. That so few changes have been made is also, perhaps, partly due to the conservative temperament of the authors, who, like all who have formed their opinions after full inquiry and careful deliberation, are not readily led to alter them.

The chief parts of the former edition which have been omitted in this, are some pages given to demonstrating by detailed argument the pathological insignificance of inflammation of the neck of the womb. These are now left out because the views then promulgated by Dr. West have since met with general acquiescence. A statement of the arguments against as well as for ovariectomy is happily now not needed, because the great success of Mr. Spencer Wells, and the still greater proportional success of Dr. Thomas Keith, have furnished a practical argument in favour of the operation, of irresistible force.

It will be obvious that as to those changes which increased knowledge makes necessary, there must be much difference of opinion, dependent upon the varying degree to which each new view in theory, or innovation in practice, is supported by evidence satisfying to the critical faculty of each individual. The additions made by Dr. Matthews Duncan are put in brackets; but they would be easily distinguished without these marks, his somewhat rugged style contrasting strongly with the polished periods of Dr. West. These additions comprise a number of short paragraphs scattered through the book; a few more lengthy additions, among which we may especially note those on endometritis and on diseases of the vagina; and many references in foot-notes, which those working at the subject to which they refer will find very valuable. In these additions there is much information, but Dr. Duncan, although, as everyone knows, a model of precision and lucidity when expounding at

length original investigations, yet does not seem to succeed well in simplifying and condensing. The matter of his additions, though rich, is not put in the clear, definite, and orderly way that a student desires. Dr. West has himself in many places re-written his text so as to introduce the result of later research. But, as we have said before, the authors are of a strongly conservative tone of mind. They are not hasty in recommending treatment the benefit of which is not certain. They prefer safety to brilliancy; measures which are sure not to do harm even if not promising much benefit, to such as bring with them a small and doubtful chance of great good and a large risk of severe injury. It therefore happens that the book is not a reflex of current opinion. Many things about which much has been written find no place in it, silence having perhaps been charitably preferred to condemnation. The book suffers somewhat in comparison with other works of the kind, from the fact that no surgical procedures are described. The student is told when surgical treatment is necessary; but the way to do what is advised is not given. This may be right from the point of view of the pure physician, that it is for the physician to advise, for the surgeon to perform. But at the present day these lines are becoming less distinctly marked, even among physicians and surgeons who are not specialists. Whether this be an advantage or not, there can be no doubt that he who has made a special study of the diseases of certain organs, and who has gained a special dexterity in the manipulations necessary to ascertain the condition of those organs, is the person likely to perform with the greatest skill the similar manipulations required for treatment. For the student and the general practitioner the utility of knowledge as to the performance of operations is so obvious that we cannot but view the omission of detail as to frequently performed gynecological operations as one which detracts from the usefulness of the work.

The characteristics of the book before us we may briefly thus state. It is admirable for its literary grace and for its high tone. Dr. West is as careful to inculcate a jealous regard for the honour of our profession, and a constant recollection of the social as well as the medical aspects of our duty, as he is to teach how best to cure disease. Assuming the form of lectures to students, the book aims rather at clear exposition of correct principles and well-ascertained fact, than at encyclopædic fulness of information, or discussion of every transitory theory. It is not exhaustive, but sound. Those who take up a book to be told of the latest novelty, without desiring any appraisalment of the value of such novelties, will be disappointed here. The authors have had the courage to anticipate the verdict of history on many a pessary and many an operation, beside many other inventions, less dangerous, but equally useless. But the work omits little that has borne the test of experience, or that is supported by good evidence. It is pleasant and attractive reading, and is a safe, if not venturesome, guide—perhaps the safest—for the student and practitioner.

Die Rhinoskopie und Pharyngoskopie für Specialisten, Chirurgen, und Praktische Aerzte. Von Dr. RUDOLPH VOLTOLINI, Professor in Breslau. Breslau: Morgenstern. 1879.

Rhinoscopy and Pharyngoscopy for Specialists, Surgeons, and General Practitioners. By Professor VOLTOLINI, of Breslau. Breslau: Morgenstern. 1879. Part I. Pp. 152. With sixteen illustrations.

THE brochure before us is the first part of a work on Rhinoscopy. We find from the author's preface that it is nominally the second edition of a prize essay which was published in the year 1861; but in reality it is a new work, for the advances which have been made in the interval in this department of scientific work have, as everyone knows, been very considerable. Dr. Voltolini's name is associated pretty intimately with the subject, not only as an early worker, but also as an advancing worker. Hence his new book is sure to meet with a cordial welcome. Commencing with an historical survey of the subject, which refers back to the real originator of this method of examination, Bozzini, from whom Czermak got his ideas, our author proceeds *seriatim* to discuss the various instruments used, the means of illumination, and the means for magnifying what is seen. He then goes on to the parts to be examined, giving first the nasal cavity, seen from before and from behind; then the posterior nares; and, finally, the pharynx. There are

some very good illustrations, which tend to simplify and elucidate the text. We presume the second part will treat of the subjects from the therapeutic point of view, and if such is the case, the book when complete will prove a useful addition to this department of practical medicine.

Hygiene of the Sea. Translated from the Italian of Dr. VICTOR GRAZZI, by FREDERICK W. WRIGHT, Surgeon. London: Bemrose and Sons, 10, Paternoster-row.

We cannot understand why this little book was ever translated. As far as the matter goes, we have nothing to say against it, but it is written for Italians, not for English people, and its rules are adapted for a country whose sun is warm, not flickering like our sun; whose sky is cloudless, and whose sea is of a much higher temperature in summer than ours. Practically the book contains nothing new; even the method of applying artificial respiration in the last chapter is only a slightly modified Sylvester's method, palmed off as the invention of Professor Pacini. The translation is simply abominable. The Italian style is itself sufficiently "twaddley," but it is exaggerated and intensified to an absurd degree by the baldness of the translation. Here are a few specimens:—"Undress yourself quickly, and without trepidation throw yourselves into the sea, immersing the whole body at once, from the sole of the foot to the crown of the head. It is so fine to see a man who, animated with a healthy courage, as if defying the immense element (*sic*), nerves himself, and with amiable confidence allows his whole body to be lapped in the same instant with the purest sea waves."—Page 62. "Bathers of every sex, age, and condition, place your hand (*sic*) on your heart, and confess if ever in your life you have read a tract on hygiene or listened attentively and followed with precision the advice of that physician who proposed to you the cure of the sea!" (*sic*).—Page 51. "Immediately after going out of the bath towel yourselves (*sic*) with the greatest care."—Page 68. "Some parents, deceived by the almost voracious appetites by which little bathers are seized, forget the capacity of their stomach. [Did they ever know it?], and allow them to eat to the point of bursting (*sic*), by which those little stomachs, full of food to repletion, digest badly; and it is necessary that about thirty grammes of castor oil, taken unwillingly and with a thousand grimaces, balance the receipts with the expenditure." We should advise Mr. Wright to take a few lessons in the art of English composition.

THE ROKITANSKY FESTIVAL.—The *Allg. Wiener Med. Zeit.* for August 4 supplies an account of an interesting festival that was held on the 3rd inst. at Königgrätz, on the occasion of fixing a memorial tablet on the house in which Baron Rokitansky was born. Numerous savants and professors were present. Prof. Albert, of Prague, and Prof. Heschl, of Vienna, delivered orations, in which the services of Rokitansky to science, and his claims to the admiration of posterity, together with many interesting biographical particulars, were duly set forth. The whole affair seems to have been admirably managed.

TOXIC EFFECTS OF TEA.—At the annual meeting of the American Neurological Association, Dr. Morton read a paper upon this subject, founded upon observations made on five persons employed as "tea-tasters" and a series of experiments performed upon himself. The immediate effects of an excessive dose are rapid elevation of pulse, marked increase of respiration to the extent of about one-third, increase of temperature, no period of exhilaration, but immediate and severe headache, dimness of vision, singing in the ears, dulness, and confusion of ideas. Following this, there is severe reaction, exhaustion of mind and body, tremulousness and "nervousness," and dread of impending harm, that could not be relieved by taking more tea. The effects of continued doses are a continuance of the tremulousness, extreme susceptibility to outside impressions, constipation, diminution of urine, and marked influence on the metamorphosis of tissue, as shown by the diminution in the amount of urea. Thus, in the week during which Dr. Morton was taking toxic doses of tea, the amount of urine fell from 40 oz. to 32 oz. per diem, and in the same time the urea fell from 591 to 422 grains daily. The sulphates, phosphates, and chlorides were increased.—*New York Med. Record*, July 12.

FOREIGN AND COLONIAL CORRESPONDENCE.

AMERICA.

PHILADELPHIA, July 22.

THE QUININE QUESTION—ABOLITION OF THE DUTY ON QUININE OF FOREIGN MANUFACTURE—THE OFFICIAL REPORT OF THE MEDICAL DIRECTOR OF THE INTERNATIONAL EXHIBITION—REGISTRATION STATISTICS—YELLOW FEVER—DR. B. JOY JEFFRIES AND DR. PETER D. KEYSON ON COLOUR-BLINDNESS—PROFESSOR S. D. GROSS.

THE manufacturers and consumers of quinine have for several months watched with considerable anxiety the efforts that have been made to affect by legislation the interests of both parties by removing the duty from that article. Much mistaken sentiment has been indulged in, especially at the expense of the manufacturers, who were presumably monopolising the market for their own pecuniary benefit, regardless of the needs of the masses for the supply of the drug at less expensive rates. At the meeting of the American Medical Association at Atlanta the merits of the question were not inquired into; a resolution opposing the abolition of the duty was tabled without discussion; and the Association took sides with the advocates of free quinine almost unanimously—presuming, with the masses of the people and the Press generally, that there was only one side to the question, and that was the popular and delusive one, that when the duty was taken off the price of quinine to the consumer must be necessarily diminished. Many interesting facts have become known and recognised since, but Congress has followed in the same current within a week or two past, and by its legislative action extinguished the duty, so that nothing now remained but to watch the result and to note the commercial aspects of the case. The manufacturers contend that the quinine which they put into the market is quite as good as the foreign, and in some instances superior, but that the danger of receiving an inferior article becomes much greater when we are wholly dependent upon distant manufacturers. The American producers of the drug have always used their utmost endeavours to keep a large stock constantly on hand, so as to be prepared at all times to meet the wants of the community. Yet the demand is very fluctuating and uncertain, sometimes commencing unexpectedly, continuing urgent for an indefinite period, and ceasing as abruptly as it commenced. The risks they assume are but imperfectly understood, in view of the fluctuations in the price of barks, the large amount of capital required to provide the necessary supplies, the uncertain demand, etc. I refer, of course, to the matter from the standpoint of the manufacturers, as their side has not been fairly brought into prominence. Occasionally the supplies have been inadequate to meet excessive and speculative demands, as when it has become impracticable to procure a full quantity of crude materials—a condition of things which existed in 1877. During the war in South America, commencing in July, 1876, there was imported into the United States only one-third of the amount of bark from that region that was imported during the previous year. The usual supply of quinine was not manufactured in consequence, but the markets of the whole world suffered.

It is said that this Free Quinine Bill was forced through Congress by the persistent efforts of the Southern members, who declared that the necessities of the people of that section of the country demanded that the drug should be placed within the reach of the thousands of malarial subjects who were dependent upon its virtues for relief. The result will, of course, be the extinction of a branch of industry which has, in the United States, been mainly restricted to two Philadelphia houses, Powers and Weightman, and Rosengarten and Co., and has risen to immense proportions during a period of more than half a century. The abrupt termination of such a manufacture certainly enlists our interest, and although apparently a monopoly, the excellence of the article was only secured by the outlay of vast amounts of money, which prevented others from entering into the competition. Cinchonidia was also introduced to the notice of the American medical profession mainly by Mr. Powers, who believed that it could be generally employed in the same cases in which quinine was indicated. Until lately the South American

barks were employed for the extraction of quinine, but it is now found that the East Indian barks are more economical, the yield being about seven to one when compared with that of the South American trees. It is not believed that the removal of the duty will affect the cost of quinine to the consumer. The retail dealer charges about three cents a grain, or \$14 40c. per ounce, of which \$9 50c. is profit when he sells quinine, and \$11 35c. when he dishonestly puts up cinchonidia in its stead. It is not believed that the retail druggist will be content to reduce his price, duty or no duty, but will continue to sell every ounce of quinine he dispenses for four times what it costs him. The manufacturer of the best quality of quinine has been paying 10 per cent. duty on the best bark, two dollars per gallon on the solvent used in manufacture, and 100 per cent. on the alcohol, and yet, while taxing these materials, the Government insist that he shall compete with foreign laboratories. The result will be that quinine will hereafter be manufactured as an accessory product in working the poorer qualities of barks for quinidia, cinchonidia, and other more easily extracted alkaloids. When it was announced that the Free Quinine Bill had passed Congress, singularly enough, and I suppose much to the general surprise, the price of quinine at once advanced. It is considered by those who are well informed in the matter an act of supreme folly to call that "free" which is burdened with interval revenue and tariff rates, as against the productions of foreign countries, where every article that goes into the manufacture is made free, while the product itself is protected, in France by the absolute prohibition of foreign articles, in England and on the Continent by exemption from all tax, and by the expenditure of immense sums on the cultivation of cinchona bark in the East Indies as a new source of supply.

The Medical Director of the International Exhibition of 1876, Dr. William Pepper, has recently published, in pamphlet form, the advance proof sheets of his official report of that memorable year's work. It will be remembered how much interest was expressed at that time in the sanitary condition of our city, especially by needlessly jealous alarmists in other cities, who were not too anxious that the Exhibition should succeed. The full and official statement, on which reliance may be placed, now appears for the first time, and presents the facts on which to base conclusions. During the 159 days in which the Exhibition was open, 6463 cases were treated on the spot in the Medical Department. The data collected by the Medical Director enable him to contradict the reports so extensively circulated at the time as to the health of Philadelphia, by a statistical summary, comparing it with other large cities from May 10 to November 10 (which embraces the entire Exhibition period), as follows:—

	Population, in thousands.	Total mortality from all causes.	Annual death-rate per 1000 living.	Total mortality from all zymotic diseases.	Annual death-rate per 1000 from zymotic diseases.	Total mortality from typhoid fever.	Annual death-rate per 1000 from typhoid fever.	Total mortality from diarrhoeal affections.	Annual death-rate per 1000 from diarrhoeal affections.
London . . .	3,489	37,592	21.54	6,905	3.99	606	0.34	3,149	1.80
Philadelphia . . .	900	10,294	22.77	2,485	5.5	450	1.0	1,333	2.96
Baltimore . . .	350	4,020	22.97	1,524	9.2	148	0.84	652	3.72
Chicago . . .	420	4,927	23.46	2,277	10.8	108	0.51	918	4.37
Boston . . .	342	4,144	24.33	1,422	8.3	98	0.56	772	4.5
Brooklyn . . .	508	6,453	25.49	2,583	10.0	53	0.20	1,485	5.86
Paris . . .	1,851	23,735	25.63	...	...	1,122	1.21	...	...
New York . . .	1,054	16,492	29.40	5,884	11.0	168	0.30	3,527	6.69
Berlin . . .	980	16,407	33.86	...	...	393	0.81	...	...

It will be seen from this table that Philadelphia was second to London alone in point of average total mortality, and that while the annual death-rate from typhoid fever per 1000 living in Philadelphia was higher than in any other of these cities excepting Paris, the annual death-rate per 1000 from all zymotic diseases, which include diarrhoeal affections, continued and eruptive fevers, etc., was relatively smaller in Philadelphia than in any other city save London. This result is chiefly due to the relatively small mortality from diarrhoeal affections, which gave an annual death-rate per 1000 of only 2.96, as contrasted with 6.69 in New York, or 5.86 in Brooklyn.

While on the subject of statistics, I desire to make allusion

to some interesting facts which I recently noted in one of the New York daily papers bearing upon the registration of births, deaths, and marriages in that city. The registry of deaths is said to be nearly perfect, being compulsory, while that of births is based upon such reports as medical attendants, parents, and nurses choose to volunteer. The number of births annually in the city has been carefully computed to exceed the deaths by five or six thousand. It is urged that in these days of expanding statistical knowledge it is a shame that the great State of New York, with 1,000,000 families and 5,000,000 people, owning or claiming estates valued at \$6,500,000,000, should have no trustworthy record of the rising, or even of the fading, generations of claimants and owners. The record of marriages is much more meagre, but the State will be constrained, so the Registrar of Vital Statistics says, sooner or later, to provide for the obligatory certifying and public registration of births, marriages, and deaths. The intermixture of races is strikingly shown in the statistics of four years—1875-78—during which nearly 100,000 births were reported. German mothers come first with 34,642 children, or about 35½ per cent. of all; then American mothers, with 30,912, or 31½ per cent.; and then Irish, with 20,637 children, or 21 per cent. Germany is still more conspicuous for fathers, and, as the paper quoted states, considering the accepted fame of Ireland for perpetuating the race, and especially considering that by the census of 1875 our city had 199,084 Irish to only 165,021 Germans (while with regard to sex there was no material difference, the males being to the females in both nationalities as 60 to 40), the return of 39,528 children of German fathers to 20,269 of Irish fathers is not a little surprising. This is the fact, however, that of every 1000 children born in the four years, 403 had German and but 207 Irish fathers. Of every 1000 children, 353 had German and 211 Irish mothers. The ratio deduced from population should be 100 children of Irish to 83 of German parentage; but the record shows more than the reverse of this.

The occurrence of a few cases of yellow fever at Memphis, Tennessee, thus early in the season, has filled the country with alarm and melancholy forebodings for the future, mainly because of the never-to-be-forgotten ravages of the disease there last year. Time alone will show whether another epidemic in the South is to follow. The New Orleans people claim that at no time has that city been so free from fever of any description, or exhibited less tendency to yellow fever. The death-rate is lower than it has been in even what were considered to be healthy years; the winter has been unusually severe, and the spring cool. They seem to believe that it is almost absolutely impossible for yellow fever to obtain an epidemic foothold. By the mere announcement of the occurrence of the two or three cases mentioned, 5000 persons were scared away from Memphis. There seems to be doubt whether much has been done there since last year in the way of sanitary improvement, although a more systematic co-operation has been effected throughout the country generally by the establishment of a National Board of Health and of additional State Boards. So far as the exodus of the people of Memphis is concerned, it must be borne in mind that the 20,000 who left the city last year are more susceptible to epidemic influence this year than those who remained through the epidemic; but it must also be remembered that of the 20,000 that were in the city during the prevalence of that fearful scourge, 17,000 were attacked with the fever, and upwards of 5000 died.

A good deal of professional attention has recently been paid to the subject of "colour-blindness," or, I should rather say, the importance of generally recognising its frequency has been made more manifest through the efforts of one or two of our American ophthalmologists. Dr. B. Joy Jeffries, of Boston, has recently published a little work on the subject, founded on the examination of the eyes of 24,000 different persons, derived from his experience in the Massachusetts Eye and Ear Infirmary and other hospitals. He has arrived at the conclusion that four eyes in every hundred have this optical defect; and he thinks, with others who have made it a study, that there is no protection for travellers except in the elimination from all railways and vessels of all persons whose positions require colour-perception and who do not possess it. He proposes that an international commission should be instituted to establish regulations for examining pilots, masters, and crews of steamers and sailing-vessels in the navy and the merchant marine. It is certainly desirable

that the regulations in force on the European railroads requiring periodic examinations of the whole force employed should be adopted in this country. Dr. Peter D. Keyser, of Philadelphia, one of the staff of Wills Eye Hospital, read a paper on this subject a few weeks since at the meeting of the State Medical Society of Pennsylvania, embodying the results of a scientific examination of the visual powers of the railroad men on almost all the adjacent railways. He has arrived at the rather alarming conclusion that 12 per cent. of these men are actually unable readily to distinguish the colours of the signal lights, upon which railroad trains are run at night. He found 3½ per cent. of the railroad employes to mistake colours one for the other; and 8½ per cent. additional, who, although able to distinguish the colours, are unable to tell the shades of colours; thus making the 12 per cent. mentioned of those examined who are not quick and sharp in noticing and distinguishing colours and shades. The methods of examination employed were the following:—That of Professor Holmgren, of Sweden, in testing with skeins of coloured worsted, and afterwards that of Dr. Stilling, in which coloured letters on a black card are displayed, after which plates of coloured glass were held in front of a gas flame in a darkened room; and finally the different signal lamps used on the road were brought before them in various ways. The refraction of the eyes was carefully examined with the ophthalmoscope, and of the number under examination 79 per cent. were found of perfect vision and 21 per cent. defective. Of the colour-blind, 47 per cent. were of perfect vision and 53 per cent. defective. Of those who only shaded badly, 77 per cent. were of perfect vision and 23 per cent. defective. Colour-blindness is thus shown not to be governed by any defect of refraction. Neither has age anything to do with this anomaly; for those found defective in the least range from twenty to fifty-three years of age. Of those found defective, 50 per cent. were green blind, 44 red, and 6 blue. Of the 8½ per cent. defective in shading, 95 per cent. were so in green, and 5 per cent. in red.

Lindsay and Blakiston of this city have just published in an octavo book of about fifty pages, illustrated with an excellent photo-lithograph of the distinguished recipient of the honour, the full proceedings of the "complimentary dinner given to Professor S. D. Gross by his medical friends in commemoration of his fifty-first year in the profession—April 10, 1879." The Committee of Arrangements have thus preserved the record of a most interesting occasion in a graceful shape, and enabled those who were present to recall in its perusal one of the most memorable events in the medical annals of this city and country. As stated by the Committee in the preface, in days to come this little volume will recall vividly the scenes of that evening, the assemblage of so many of the most distinguished members of the medical profession of this city and country, the sincere and heartfelt expressions of regard and affection, the warm and hearty congratulations offered in person, by letter and despatch, to him in whose honour the dinner was given. One of the medical journals, referring to the private and public tributes offered to Dr. Gross during the current year, says: "While we have much to honour and respect him for, we cannot resist calling attention to one of his cardinal peculiarities, and one which has done much to make his lectures and his works popular. We refer to his respect for the plain, pure, Anglo-Saxon language. He would never use a foreign quotation, or a technical term, when he could find the pure English applicable."

Henry C. Lea, of this city, has published recently a work on gynaecology, the personal experience of Dr. Thomas Addis Emmet, of New York, in that speciality. The treatise is of a thoroughly practical character, and is interesting as the record of labour performed by an indefatigable, earnest, able, and original gynaecologist. In addition to a large private practice, the Woman's Hospital in New York has supplied an abundance of material with which such a skillful observer could profitably illustrate every form of disease or accident to which the sex is liable. That institution entered upon its early successful career under the auspices of Dr. J. Marion Sims, to whom Dr. Emmet succeeded when the latter went abroad in the days of the civil struggle in this country. The statistics and facts collected in this volume by Dr. Emmet give ample testimony to the vast resources of this Hospital. The author is fertile in resources, ingenious in his mechanical applications, original in his methods of manipulation and in his surgical procedures.

GENERAL CORRESPONDENCE.

"THE NEW 'TOUCH AND SIGHT' SPECULUM."

LETTER FROM DR. HEYWOOD SMITH.

[To the Editor of the Medical Times and Gazette.]

SIR,—With reference to the notice in your last issue, under the head of New Inventions, of a speculum for touch and sight made by Messrs. Salt and Co. at the suggestion of Mr. Hickinbotham, I beg leave to draw your attention to Dr. Prother Smith's speculum for simultaneous touch and sight made by Messrs. Ferguson between twenty and thirty years ago. It consists of two thin metal specula, having an oval fenestra in the outer one for the introduction of the finger. On sliding in the inner tube the fenestra is closed.

August 25. I am, &c., HEYWOOD SMITH.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 21:—

Glanville, Francis Ferratus, the Western Dispensary, Westminster.
Mudge, James, Hayle, Cornwall.
Rowlands, Hugh Pugh, Bryngwyn, Towyn, Merionethshire.
Wright, Christopher St. John, Prior's Maston, Warwickshire.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Thomas, William Richardson, St. Bartholomew's Hospital.
Waterhouse, George Beardmore, London Hospital.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

WHITEHEAD, WALTER, F.R.C.S. Edin.—Surgeon to the Manchester Royal Infirmary, *vice* George Bowring, F.R.C.S. Eng., resigned.

NAVAL AND MILITARY, ETC., APPOINTMENTS.

WAR OFFICE.—Surgeon-Major William Hemphill, M.D., retires upon half-pay with the honorary rank of Deputy Surgeon-General.

BIRTHS.

BENNETT.—On August 25, at 53, Upper Berkeley-street, Portman-square, the wife of H. Selve Bennett, premature of a son, stillborn.
BRODRIBB.—On August 26, at Hastings, the wife of Charles Aikin Brodrigg, M.R.C.S. Eng., of a son.
LACEY.—On August 23, at Plumstead, Woolwich, the wife of T. Warner Lacey, L.R.C.P., of a son.
LUPTON.—On August 25, at Stratford-upon-Avon, the wife of Harry Lupton, L.R.C.P. Lond., of a daughter.
SMITH.—On August 25, at 2, Portugal-street, Grosvenor-square, the wife of Heywood Smith, M.D., of a son.
TAYLER.—On August 24, at 224, Lewisham High-road, S.E., the wife of Francis T. Tayler, M.B., of a daughter.
WILLS.—On July 22, at Gulhaek, near Teheran, Servia, the wife of Charles James Wills, M.D., of a son.

MARRIAGES.

BIRKETT—PEMBERTON.—On August 21, at Edgbaston, Percival Birkett, of Lincoln's-inn-fields, third son of John Birkett, F.R.C.S., to Violet, youngest daughter of the late Thomas Pemberton, of Heathfield, Handsworth, Birmingham.
HALL—SMITH.—On August 20, at Tunbridge Wells, Francis de Havilland Hall, M.D. Lond., of Queen Anne-street, Cavendish-square, to Amy Margaret, third daughter of Apsley Smith, of Rusthall, Tunbridge Wells.
LANG—BUCKLAND.—On August 27, at St. Stephen's, Paddington, William Lang, F.R.C.S., third son of Isaac Lang, Esq., of Langley, Exeter, to Susan, fourth daughter of the late William Thorne Buckland, Esq., of Auckland, New Zealand.
ROUSE—CRICHTON.—On August 20, at Broadwater, Sussex, Fredk. Sydney, third son of Major Rouse, J.P., D.L., of Melton, Suffolk, to Jessie, second daughter of Geo. G. Crichton, M.D., of Bellevue House, Worthing.
SEYMOUR—GIBBONS.—On August 19, at Holy Trinity, Sloane-street, Charles Seymour, M.B., Army Medical Department, to Caroline Adelaide, youngest daughter of Assist. Commissary-General Gibbons, Portsmouth.
TUFNELL—CHARSLEY.—On August 26, at Twickenham, Charleton Powell Tufnell, of the P. W. Department, India, to Laura Gertrude, younger daughter of William Parker Charsley, M.D., late Inspector-General of Hospitals, Ceylon Service.

DEATHS.

BULL, MARTIN M., M.R.C.P. Lond., in Jersey, on August 19, in his 59th year.
CANDY, JOHN HENRY, M.D., at Littlehampton, on August 15, aged 73.
GOOCH, WILLIAM HENRY, M.D., F.R.C.S., at Groove-hill, Ventnor, on August 22, in his 69th year.
HAY, THOMAS BELL, L.R.C.P. Edin., late of Caledonian-road, London, at Christchurch, New Zealand, on August 23, aged 43.
LETHBRIDGE, LUCY JANA, wife of Charles F. Lethbridge, M.R.C.S.E., at Eastwood, Notts, on August 19, aged 42.
WALLACE, JOHN, M.D., Surgeon-Major H.M.'s 12th Regt., at Lundi Kobal, Afghanistan, of cholera, on July 16, aged 39.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BIRMINGHAM GENERAL HOSPITAL.—Candidates must be graduates in medicine of a University by examination, and Fellows or Members of the Royal College of Physicians in London; but twelve months from the date of election will be allowed for obtaining the F.R.C.P. or M.R.C.P. Applications, accompanied by diplomas or certificates of registration and original testimonials, to Wm. T. Grant, House-Governor, on or before September 29.

BREADNUGHT SEAMEN'S HOSPITAL, GREENWICH, S.E.—House Physician. Candidates must be Members or Licentiates of the Society of Apothecaries, Fellows or Members of the Royal College of Surgeons of England, unmarried, and under thirty years of age. Applications, with particulars of professional qualifications, and references as to moral character, to Henry C. Burdett, Secretary, on or before September 10.

BREADNUGHT SEAMEN'S HOSPITAL, GREENWICH, S.E.—House-Surgeon. Candidates must be Members or Fellows of the Royal College of Surgeons of England, unmarried, and under thirty years of age. Applications, with particulars of professional qualifications, and references as to moral character, to Henry C. Burdett, Secretary, on or before September 10.

JERSEY GENERAL DISPENSARY.—A Resident Visiting and Dispensing Medical Officer, possessing the double qualification, and unmarried, is wanted for November 1. Canvassing vitates election. Election probably early in September. Address, Honorary Secretary of Jersey General Dispensary, Oak-walk, Jersey.

MANCHESTER ROYAL INFIRMARY.—Honorary Assistant-Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England. Applications, with diplomas, original testimonials, and a certificate of age, to the "Chairman of the Board," on or before September 20.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Ecclesall Bierlow Union.—Mr. J. W. Harrison has resigned the Third District: area 10,343; population 16,052; salary £57 10s. per annum.
Leeds Union.—Mr. Hamilton has resigned the Workhouse and Schools: salary £300, residence and other allowances.

APPOINTMENTS.

Crediton Union.—William H. Heygate, M.R.C.S. Eng., L.S.A., to the Sandford District.
Epping Union.—Robert N. Day, M.R.C.S. Eng., L.S.A., to the Harlow District.
King's Norton Union.—Thomas Richards, M.B., C.M. Edin., M.R.C.S. Eng., L.S.A., to the Edgbaston District.
Pottersbury Union.—Alfred P. Kingcombe, M.R.C.S. Eng., L.S.A., to the Fourth District.
Rugby Union.—Arthur F. Wilson, M.R.C.S. Eng., to the Dunchurch District.
Thorne Union.—Henry Nichol, L.R.C.P. Edin., M.R.C.S. Eng., to the Thorne District.
Truro Union.—Thomas Markby, M.R.C.S. Eng., L.S.A., to the St. Agnes District.

THE MEETING OF THE GERMAN NATURALISTS AND PHYSICIANS.—The fifty-second meeting of this parent of the now numerous tribe of scientific congresses is to be held, under the presidency of Prof. Baumgärtner, at Baden-Baden, from September 18 to 24. Besides the work to be done in the very numerous sections, addresses will be delivered by Profs. Baumgärtner, Kussmaul, Hermann, Birch-Hirschfeld, Ecker, Göltz, Jäger, etc.

CUPPING IN CARBUNCLE.—Dr. Hunt states in the *Chicago Medical Examiner* that during a long practice he has treated carbuncle with great advantage by dry cupping, repeating it once or twice a day or oftener. To cupping-glasses he prefers a large broad-rimmed tumbler or goblet, by which the base of the tumour may be covered, this being exhausted by burning cotton. It is best not to resort to the cupping too much until pus has formed, and when it is employed in an early stage the scalpel or lancet should be used to induce a free flow of blood. At a later period, the dry cupping suffices to produce abundant discharge from the carbuncle, giving great relief, limiting gangrene, and relieving tension. With appropriate general treatment the disease is thus shorn of half its pain, duration, and danger.

MORTALITY IN CALCUTTA DURING 1878.—The death-rate was higher in Calcutta in 1878 than it had been in any of the preceding ten years, viz., 38 per 1000, the mean rate for 1868-77 having been 27.9. As the extremes for that period were 23.9 in 1871, and 32.7 in 1875, the rate for 1878 therefore far exceeds the maximum as well as the mean rate of the decade. The excess is mainly due to an excess of small-pox and fever, the former giving 1495 against an average of 129 for the decade, and the latter 6086 against 4416. The death-rates among different classes of all ages were Hindus 38.9, Mohammedans 37.5, Mixed Races 57, and Non-Asiatics 28. The migration of the native sick to their village homes reduces the death-rate of the town considerably. *Infant mortality* continues enormous in Calcutta. The rate for 1868 was 304 per 1000 of estimated births, the rates among different classes being as follows:—Hindus 369, Mohammedans 414.8, Mixed Races 286.7, Non-Asiatics 59.2, and other classes 69.7. Tetanus and convulsions account for about half the deaths, and 1700 out of 2975 occurred within fifteen days after birth.—*Indian Med. Gaz.*, July.

DISLOCATION OF THE FEMUR INTO THE ISCHIATIC NOTCH IN A BOY.—Dr. Fenwick relates the following case, occurring in the Montreal Hospital, on account of the rarity of the accident in children. A boy four years old was brought in for what was supposed to be incipient hip-joint disease. Ten days previously, while running, he had fallen down with his right leg beneath the body. When lying on his back the knee was rotated inwards and advanced, lying over and overlapping the left thigh. It was slightly flexed at the knee-joint, and the boy was unable to stand or walk. There was flattening of the trochanter and considerable fixity of the limb. The examination was conducted on a table, and on attempting to place the limbs together and extending them, the loins were arched forwards—a condition that was reduced when the injured limb was flexed on the pelvis,—but there was not that amount of fixity which is usually seen in such cases, but some shortening. Chloroform was administered, and reduction accomplished by manipulation. “Seizing the ankle with my right hand, the leg was flexed at the knee, and the thigh flexed on the pelvis, and carried first towards the left side, to a little more than a right angle. Abduction and rotation of the limb outwards were then performed, when an audible snap was heard, and on extending the limb it was found that the head of the bone had returned to its natural position, the limbs had assumed a symmetrical appearance and were of equal length, while the motions of the joint were free and the sensation normal.”—*Canada Med. Jour.*, July.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. J. Tremearne, Victoria.—Received with thanks.

Dr. Jacob Heiberg.—Full information has been forwarded by post.

F. D. S., St. Thomas's.—Sir Francis Hicks, Treasurer of the Hospital, died September 1, 1878.

Thomas Good.—The lines are by Crabbe, viz.:—

“Troubled with something in your bile or blood,
You think your doctor does you little good.”

Bibliopole.—The library of the Royal College of Surgeons will be closed on Monday, the 1st proximo, and will be re-opened on Wednesday, October 1.

Mr. Taylor.—It was Sir H. Davy who told Faraday, when he was admitted his assistant at the Royal Institution, that he would find “Science a harsh mistress, and in a pecuniary point of view but poorly rewarding those who devoted themselves to her service.” Davy, however, married a wealthy widow.

New Dwelling-houses and their Sanitary Defects.—The importance of a close inspection of new dwellings by our district surveyors becomes daily more evident. A builder was, a few days since, summoned by the Fulham Board of Works for erecting a new house in Pownall-terrace, Fulham, without either sufficient apparatus for a water-supply or an ashpit. This was the first case of the kind which had been brought under the notice of the Court. The summons was taken out under the 51st Section of the Metropolis Local Management Act, the defendant being liable to a penalty of £20. It appeared from the evidence that the house, which had lately been finished, was now occupied, and was without any water-supply. The magistrate said this was in direct disobedience of the Act, and might have caused disease. A penalty of 40s. and costs was imposed

Dr. Campbell.—We cannot give you all the desired information, but the following are the names and salaries of the gentlemen at the Local Government Board. Medical Officer, E. C. Seaton, M.D., £1500; F. J. Mouat, M.D., £600; G. Buchanan, M.D., £1000; H. Stevens, M.D., £800; J. N. Radcliffe, £800; R. T. Thorne, M.D., £600; F. H. Blaxall, M.D., £600; C. J. Beard, M.D., £600; E. Ballard, M.D., £600; Hubert Airey, M.D., £600.

Another Oddfellow.—Yes, the Dr. W. H. Young, F.R.C.S., who died last week at the age of ninety-three, was a brother of the renowned tragedian. Both were remarkably fine, tall, handsome men. Sir Charles G. Young, of the Herald's College, Garter King-at-Arms, was another brother; he presented to the Library of the Royal College of Surgeons, a few years ago, a very fine collection of medical portraits formed by the above-named veteran, who was a constant reader there.

THE MILLERCHIP FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Please acknowledge receipt of the undermentioned sums:—

Dr. Miller, Ipswich	...	...	...	...	£1	1	0
Dr. Smith, Pershore	...	...	...	...	1	1	0
Mr. Buckle, Winchester	...	...	...	...	0	10	0
Mr. Bentham, Southsea	...	...	...	...	0	5	0

The total amount forwarded to me amounts to £65 7s. I have promises standing out, and I shall be obliged by your permitting me to state to intending subscribers that I am anxious to bring the matter to a close. £60 has now been sent to the Rev. F. M. Beaumont, vicar of Holy Trinity, Coventry, to be expended as I have directed for Mr. Millerchip's benefit.
I am, &c.,
Jos. ROGERS.

THE STOCKER TESTIMONIAL.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—We trust that you will allow us to make public through your columns the following statement concerning the testimonial raised in memory of the late Mr. James Stocker, who for many years acted as Resident Medical Officer and Apothecary to Guy's Hospital. The subscriptions amounted in all to £406 14s. 6d., the cost of printing and posting to £17 18s. 7½d., leaving a balance of £388 15s. 10½d. Of this a cheque for £50 was forwarded on June 5 for Mrs. Stocker's immediate use. The remainder, at the desire of many of the subscribers, will be placed in the hands of Mr. Stocker's executors to be invested for Mrs. Stocker's use during her lifetime, and afterwards to be divided equally for the benefit of the Misses Stocker and Mr. Henry Stocker, who is an invalid. A complete list of subscribers will be published in the September number of the *Guy's Hospital Gazette*.
We are, &c.,
R. CLEMENT LUCAS, } Hon. Secs.
H. E. WADDY, }

THE ALTAR OF NATURE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The interesting account given in your last number of the fate of that talented but unhappy woman Mary Woolstonecraft Godwin may well serve as a warning to women who think themselves free to contract sexual alliances without the sanction either of religion or of any law save their own inclinations. Perhaps one of the best definitions of such unions was given by a young French woman during the Commune, who being asked if she was married to the man she was living with, answered, “Nous ne sommes mariées que sur l'autel de la nature.” She might have added that all the animal range do the same, except man, that victim of priestcraft and tyranny.
I am, &c.,
ANTI-JACOBIN.

Public Commons.—The new Act to amend the law on public commons provides that the surplus rents of recreation grounds may be applied for improving the field gardens to which the 27th Section of the recited statute applies, in the same parish or neighbourhood, or for maintaining the drainage and fencing thereof.

“All the Markets Overflow.”—A legal Chicago journal, in lamenting that “the last year has been the hardest of any year since the organisation of courts in this city upon a local bar,” adds, “What is true of the legal profession is also true of the ministerial and medical professions: there are too many ministers—too many doctors.” The article concludes with the observation, that “it is not well for a country to have its proportion of professional men too great.”

Drinking Fountains and a Free Water-supply.—Mr. Gurney, the Chairman of the Metropolitan Drinking Fountains and Cattle Trough Association, advocates, on behalf of the Association (which is the only source that exists in London for the water free of charge to men and beasts), that if the water-supply of London should ever be under Government or municipal control, some provision should be made for the free supply of water in the streets. Undoubtedly, ratepayers would ungrudgingly pay the comparatively trifling sum which would be required for such a benevolent purpose.

Collegiate Prizes.—The subject for the Jacksonian Prize for 1880 is “The History, Principles, Practice, and Results of Antiseptic Surgery”; for the present year, to be awarded at Christmas next, it is “The Disease of the Lymphatic System known as Hodgkin's Disease or Lymphadenoma.” The Collegial Triennial Prize will also be adjudged at Christmas next if any essay of sufficient merit be sent in; the subject is “The Anatomy and Physiology of the Third, Fourth, and Sixth Nerves, as illustrated by observation and experiment in health, and by reference to the effects of injury and disease.” This prize consists of the John Hunter Medal executed in gold to the value of fifty guineas, or, at the option of the successful candidate, of the medal executed in bronze, with an honorarium of £50. Write to Mr. Stone, at the College of Surgeons, for the terms and conditions to be observed by competitors.

Mr. Prescott Hewett.—The portrait of this gentleman, who holds the appointments of Sergeant-Surgeon Extraordinary to her Majesty and Surgeon in Ordinary to his Royal Highness the Prince of Wales, has just been finished by Mr. Oules. It will be recollected that on Mr. Hewett's resigning the appointment of Senior Surgeon to St. George's Hospital, his many friends decided on presenting him with a testimonial; it took the above form; and at his wish it has been decided to present it to the governors of the Hospital at the weekly meeting of the Board in October next, the commencement of the medical session.

The "Slop" System in London.—Three East-end "slop tailors" were, a few days since, summoned at Worship-street Police-court by one of her Majesty's Inspectors of Factories, for employing young women after half-past seven in the evening. Two of them pleaded guilty, and were fined 10s. with costs; the third was discharged. This was the first prosecution under the amended Factory Act, and, in bringing the case before the Court, the Government Inspector said he thought the existing state of things with regard to the "slop" system justified the assertion that slavery was not yet extinct in England.

Onward.—1. January 6, 1879.—2. Groves' "Correlation of Physical Forces." "Without pretending to answer, what probably we shall never know, the actual *modus agendi* of the brain, nerves, muscles, etc., we may study vital, as we do inorganic phenomena, both by observation and experiment. The effort to establish one observation leads to the imperfect perception of new and wider fields of research, and, instead of approaching finality, the more we discover, the more infinite appears the range of the undiscovered."

BOOKS AND PAMPHLETS RECEIVED—

Edward W. Cox, *The Mechanism of Man*; vol. i., *The Mechanism*, third edition—A Few Remarks on Proposed Lunacy Legislation—Rickman J. Godlee, M.S., F.R.C.S., *An Atlas of Human Anatomy*, part x.—Henry Power, M.B., and Leonard W. Sedgwick, M.D., *The New Sydenham Society's Lexicon of Medicine and the Allied Sciences*—Æneas Munro, M.D., *Deaths in Childbed and our Lying-in Hospitals*—Joseph Bell, F.R.C.S. Edin., *A Manual of the Operations of Surgery for the Use of Senior Students*—R. Milne Murray, M.A., M.B., C.M. Edin., *Chemical Notes and Equations for the Use of Students*—The Hon. Francis Scott, *English County Asylums*.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Revue Médicale Française et Etrangère—Louisville Medical News—Nature—Boston Medical and Surgical Journal—La Crónica Médica—Archives of Dermatology—Gazette Hebdomadaire des Sciences Médicales de Montpellier—National Board of Health Bulletin—Guy's Hospital Gazette—Index Medicus—Boy's Own Paper—Sunday at Home—Leisure Hour—St. Louis Courier of Medicine.

COMMUNICATIONS have been received from—

Mr. J. KNOWSLEY THORNTON, London; Mr. M. A. CATES, Bournemouth; Messrs. INGRAM and ROYLE, London; THE REGISTRAR OF APOTHECARIES' HALL, London; Dr. HEYWOOD SMITH, London; Mr. R. W. PARKER, London; Dr. MACCORMAC, Belfast; Dr. SYDNEY COUPLAND, London; Mr. C. J. CULLINGWORTH, Manchester; Mr. CLEMENT LUCAS, London; Dr. ROGERS, London; Mr. A. P. HOBSON, London; Mr. JOSEPH HAZARD, Sheffield; Mr. CHATTO, London; Mr. T. M. STONE, London; Mr. HY. MORRIS, London.

APPOINTMENTS FOR THE WEEK.

August 30. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

September 1. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

2. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

3. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

4. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

5. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 23, 1879.

BIRTHS.

Births of Boys, 1177; Girls, 1193; Total, 2370.
Average of 10 corresponding years 1869-78, 2231.9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	734	588	1322
Average of the ten years 1869-78 ...	731.4	678.2	1409.6
Average corrected to increased population ...	...	...	15.8
Deaths of people aged 80 and upwards ...	...	...	47

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West ...	561359	...	6	11	2	1	...	4	1	23
North ...	751729	2	7	14	3	8	...	2	...	45
Central ...	334369	...	2	4	...	2	...	1	...	14
East ...	639111	...	15	13	...	17	...	2	...	47
South ...	967692	2	12	19	6	12	1	6	2	40
Total ...	3254260	4	42	61	11	40	1	15	3	174

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	29.542 in.
Mean temperature ...	...	58.7°
Highest point of thermometer ...	...	70.8°
Lowest point of thermometer ...	...	49.9°
Mean dew-point temperature ...	...	56.8°
General direction of wind ...	...	S.W.
Whole amount of rain in the week ...	...	2.98 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 23, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Aug. 23.	Deaths Registered during the week ending Aug. 23.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		In Inches.	In centimetres.
London ...	3620868	48.0	2370	1322	70.8	49.3	58.7	14.83	2.98	7.57
Brighton ...	105608	44.9	59	36	72.5	53.0	59.6	15.34	2.83	7.19
Portsmouth ...	131821	29.4	77	33	...	...	...	...	...	...
Norwich ...	85222	11.4	61	31	70.0	51.0	59.3	15.17	1.52	3.86
Plymouth ...	74293	53.3	47	25	65.5	51.5	58.0	14.44	2.41	6.12
Bristol ...	209947	47.2	130	62	...	...	...	...	...	...
Wolverhampton ...	75100	22.1	46	25	66.0	47.0	55.4	13.00	1.79	4.55
Birmingham ...	388884	46.3	269	105	...	...	...	...	...	...
Leicester ...	125622	39.3	88	46	70.2	47.2	57.8	14.34	0.72	1.83
Nottingham ...	169398	17.0	111	49	75.0	47.2	58.2	14.55	0.65	1.65
Liverpool ...	538338	103.3	392	203	66.8	51.8	56.3	13.50	1.63	4.14
Manchester ...	361819	84.3	263	122	...	...	...	...	...	...
Salford ...	177849	34.4	131	70	...	...	...	...	...	...
Oldham ...	111318	23.9	86	35	...	...	...	...	...	...
Bradford ...	191046	26.5	116	55	69.6	49.4	57.8	14.06	1.57	3.99
Leeds ...	311860	14.5	215	117	66.0	51.0	57.0	13.89	1.63	4.14
Sheffield ...	297138	15.1	192	90	71.0	50.0	58.2	14.55	1.56	3.98
Hull ...	146347	40.3	119	41	...	...	...	...	...	...
Sunderland ...	114575	41.4	96	40	75.0	52.0	59.0	15.00	1.58	4.01
Newcastle-on-Tyne ...	146948	27.4	85	53	...	...	...	...	...	...
Edinburgh ...	228075	53.9	131	66	67.0	49.2	57.1	13.95	0.44	1.12
Glasgow ...	578153	95.8	330	191	66.8	52.3	58.6	14.78	1.04	2.64
Dublin ...	314666	31.3	192	138	67.3	45.1	57.8	14.34	0.53	1.35
Total of 23 Towns in United Kingdom	8502896	38.6	5606	2956	75.0	45.1	57.9	14.39	1.53	3.89

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.54 in. The lowest reading was 29.32 in. on Sunday morning, and the highest 29.68 in. on Friday evening.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON A CASE OF PYÆMIA, WITH VALVULAR DISEASE OF THE HEART.

By HENRY THOMPSON, M.D., F.R.C.P.,
Consulting Physician to the Middlesex Hospital.

WILLIAM S., aged fifty-six, was admitted into the Middlesex Hospital, March 22, 1879, when the following notes were taken:—He is unable to give any definite account of his illness. All he can say is, that he has had pains in the ankles for the last two or three weeks. Some years ago he was in the surgical wards, under the care of Mr. Nunn, with what he calls erysipelas and consumption, which probably means scrofulous disease of the bones. On his own showing he is "moderately abstemious," and never had syphilis. His general aspect is that of a pale and somewhat emaciated man. On the day of admission, pulse 102, range of temperature $2\cdot2^{\circ}$ —from $101\cdot2^{\circ}$ to $103\cdot4^{\circ}$. No albuminuria.

March 23.—The pains in the ankles have subsided; there is no swelling or tenderness about any of the joints here or elsewhere, but there is considerable tenderness with some slight redness over a limited space in front of the left tibia. The right leg bears the scars of incisions made for erysipelas; the largest are seen on the outer surface of the limb, two on the thigh, and several more over the fibula. Besides these there are numerous smaller cicatrices of a coppery tint about the inner side of the right knee and over the upper half of the left leg. The edge of the right tibia is unnaturally rough. There is no œdema anywhere. The chest is voluminous and over-resonant generally, but deficient in clearness of percussion-note and in force of respiration in the right uppermost interspace. The first heart-sound is coarse and frapping. Pulse 108; range of temperature $2\cdot6^{\circ}$ —from $101\cdot6^{\circ}$ to $104\cdot2^{\circ}$.

24th.—Slept for two hours before midnight. From this time he became delirious, restless, and talkative, twitching the face, and attempting to get out of bed. Towards morning he calmed down in some measure, but the twitching and the restlessness never disappeared. Urine retained in bladder, and drawn off by catheter. In the evening he was again delirious. Range of temperature $2\cdot4^{\circ}$ —from $101\cdot8^{\circ}$ to $104\cdot2^{\circ}$.

25th.—Slept all night; this morning he is drowsy, and still twitches the muscles of the mouth and eyelids. Tongue dry, brown, and glazed; cheeks hollow. The left knee is full of fluid, and both shins are red and tender. Pulse 120; range of temperature $4\cdot4^{\circ}$ —from $101\cdot2^{\circ}$ to $105\cdot6^{\circ}$. Near midnight, when the thermometer stood at the maximum, he was put into a bath at 98° , lowered subsequently to 80° . During immersion his own body-heat was reduced $1\cdot8^{\circ}$ —from $105\cdot6^{\circ}$ to $103\cdot8^{\circ}$; after removal it sank to 99° , giving a total reduction of $6\cdot6^{\circ}$ at 1 a.m. on the 26th. He then seemed calmer than before, but it was more like the calm of exhaustion than anything else, for he complained of great weakness after the bath, while the drowsiness and the muscular movements of the face continued as before. There are now numerous patches of erythema, tender to the touch, along the tibiae and over the back of the left hand. Quinine was given at 6.40 and at 7 a.m. in doses of fifteen grains, but made no impression upon the temperature, which in half an hour rose from 104° to $104\cdot4^{\circ}$.

27th.—At 1.30 a.m. the fæces were passed involuntarily. He now became noisy, sleepless, and delirious in spite of repeated sedatives. Breathing at 9 a.m. rapid and shallow; râles abundant throughout the chest; face and lips cyanosed. Left knee still full and fluctuating. Patches of ecchymosis are seen over the right tibia. A small pustule has formed on the forehead, and the right eyelid is œdematous. Range of temperature $2\cdot4^{\circ}$ —from 102° to $104\cdot4^{\circ}$.

28th.—No change noted except that a copious eruption of large pustules has appeared on the face and thighs, and that the breathing is shorter and the pulse weaker than ever. Died at 3 p.m. Range of temperature $1\cdot3^{\circ}$ —from $102\cdot8^{\circ}$ to $104\cdot1^{\circ}$; the maximum occurred at the point of death.

In addition to occasional measures of treatment the following remedies were regularly administered:—First, salicylate of soda; then, on the occurrence of head-symptoms, chloral, morphia, wine, brandy, ether, ammonia, and bromide of potassium; finally, quinine to the amount of five grains, and tincture of digitalis to that of ten minims every four hours.

Autopsy (from the Report of Dr. Sidney Coupland).—There was no excess of fluid within the pericardium. A few small hæmorrhages were seen under the visceral layer on the posterior surface. All the chambers of the heart were filled with clots. The clot in the left auricle was adherent and laminated. The wall of the left ventricle was rather thicker than natural and somewhat pale, but not of the faded-leaf tint. The mitral valve was considerably thickened, and the chordæ tendineæ stiff and coarse. The other valves were healthy. The right lung was slightly adherent to the chest-wall and to the pericardium. The lung generally was emphysematous. In the anterior part of the upper lobe some small whitish patches were visible on the surface. These were found, on section, to be wedge-shaped; they were of a dirty white colour, granular, and somewhat friable, but not actually purulent. The left lung was non-adherent, emphysematous, and dotted superficially with points of subpleural extravasation. On the inner and anterior aspect of the lower lobe was a small cuneiform mass, similar in appearance to those described in the right lung, but more softened, and in part quite purulent; it was about as large as a pea, and surrounded by a zone of intense hyperæmia. In the upper lobe were two patches resembling those in the right lung. The liver was enlarged, smooth, and pale; it presented no abscesses, infarcts, or subserous petechiæ. Spleen normal; rather small. Kidneys slightly adherent to their capsules; a cyst on the surface of one; surfaces of both, when denuded, distinctly granular and uneven at the edges; substance pale and coarse-looking; cortex diminished in bulk. The vessels of the pia mater were gorged with blood, but nothing else of any moment was discovered within the cranium. There was no disease of the bony skull. The knee-joints were incised, and in the left a large quantity of sero-purulent fluid was found intermixed with flakes of lymph. A smaller amount existed in the right knee. There was also some puriform fluid in the right ankle-joint. Incisions made over the swellings on the left tibia and index-finger of the left hand let out some pus, which was situated, in the first instance, beneath the periosteum, and in the second case within the sheath of the tendon. The surface of the right fibula, along which the scars were ranged as aforementioned, appeared to be healthy on dissection. The upper tibio-fibular joint contained pus. The head of the right femur was dislocated, and found to be normal.

Gentlemen,—I presume you are all familiar with the chief clinical features of pyæmia as they present themselves in the domain of surgery, where they are far better pronounced than ever they are in the range of medical experience. To the surgeon, you know, rigors are of essential value and significance in the diagnosis of pyæmia. Without rigors he would at once look upon such diagnosis with the gravest misgivings—perhaps he would set it aside altogether as unworthy of acceptance. You must, however, bear in mind that to the surgeon belongs the privilege of witnessing and watching the majority of cases from the onset: many of the cases, indeed, are his own handiwork—the outcome of his own operations. Now, if ever there be a rigor at any time, it is sure to occur at the very outbreak of the malady, and the surgeon is sure to see it or to hear of it. If he does not, he has strong *prima facie* grounds for disbelieving in the existence of pyæmia. It is otherwise with the physician. Again and again the cases that fall under his charge are at least of some short standing, and the rigors may have come and gone unrecorded and unremembered, or they may have never existed at all. Recollect this, and in medical cases never allow yourselves to be carried away by the foregone conclusion that there is no pyæmia because there is no history of shivering. Recollect, moreover, that rigors are really far oftener absent in the sphere of medicine than in the sphere of surgery, although they are the rule in both departments alike.

The symptoms of pyæmia are, in brief, those of enteric or typhus fever, with a large but varying intermixture of the hectic form. The main distinctive criteria are the following:—If the rigors and the perspirations which commonly

signalise the onset are repeated throughout the career of the case in disorderly fashion, you may safely exclude enteric fever, typhus, ague, and acute rheumatism. Moreover, in the first-mentioned the fever-spots are pathognomonic and cannot be mistaken for the sudamina and pustules of pyæmia. Again, the pleuro-pneumonia which may often enough attack the sufferer from rheumatism, and attack him severely too, is seldom so severe, so widely diffused, and so rebellious, as in pyæmia. Even the appearances around the joints, which make rheumatism and pyæmia look so like each other, may, for the most part, be discriminated with care. In rheumatism the redness is faint by comparison, and fades away insensibly into the normal hue of the surrounding skin; in pyæmia it is vivid and crimson-coloured, sharp in its definition and jagged at the margins. Such, at least, is the teaching of my own experience. Again, in the majority of cases of pyæmia there is an earthy-yellow tinge of the complexion, which in many instances may deepen into genuine jaundice. In rheumatism true jaundice is altogether exceptional, although there may be a trace of the characteristic tint in the eye and in the urine. In the common forms of fever, jaundice is so rare as to claim especial recognition whenever it chances to co-exist. Far, however, above and beyond all other criteria is the testimony of the thermometer. The free and fitful oscillations on the chart are unerring and all-sufficient guides to the diagnosis. Nevertheless, it would be well to pause awhile and to enlarge upon the differential diagnosis of pyæmia and acute rheumatism. No two diseases are so often confounded; indeed, at the first sight the confusion is almost inevitable unless there is something in the circumstances of the case positively to foreshadow the coming of pyæmia. I have made the mistake more than once for a moment, or for a longer though limited period: it would be unpardonable to remain in uncertainty or in error to the last. A few months ago I lectured on cerebral rheumatism—a form or manifestation of rheumatic fever which is most nearly akin to pyæmia,—and this for two reasons: it is always accompanied by head-symptoms, as its name denotes, and is often accompanied by hyper-pyrexia, or at least by a high degree of pyrexia. In that lecture I besought you to stand on your guard, and to look ahead for the tokens of forthcoming mischief. I warned you then in all cases of acute rheumatism, and I warn you now in all cases that bear the least resemblance to acute rheumatism, when associated with nervous derangement, never on any account to allow the temperature to go beyond 104°, or at most 105°, before you resort to the bath. I acted on this principle in the present case; I assumed it virtually to be cerebral rheumatism, as I was bound in conscience to do while as yet there was the shadow of a chance that it might accord with my assumption. In so doing, of course I interfere with the natural changes on the thermometer. I do not give the instrument fair play and free scope for the delineation of the disease if, the moment it stands at 104° or 105°, I cool down the body-heat in the bath and reduce it in the end to the normal average, or below that level. This is true as far as it goes; the bath defaces for awhile, but it does not destroy, the distinctive readings on the thermometer—if you read between the lines; in other words, if you look at the lesser elevations, which are untouched by the bath, and disregard the main peaks, which alone are lowered by it. In well-developed cerebral rheumatism with high fever, the temperature will seldom fall spontaneously more than a degree or so; indeed, when left to itself it is almost always on the rise. In pyæmia, on the other hand, it may fall many degrees, so that with the aid of the thermometer alone you will not usually remain long in the dark as to the nature of the case. Again, apart from the thermometer, there is one cardinal criterion which in a multitude of cases will decide the point incontestably. In cerebral rheumatism, at the outburst of a paroxysm, the joint-pains subside or disappear. In pyæmia, if they exist at all, they pursue their own course; they have nothing whatever to do with pyrexia, hyperpyrexia, or head-symptoms. Perhaps I ought to have availed myself of this criterion in W. S., in whom there was no abatement of pain or swelling at the time: perhaps I ought not to have bathed him at all, but I thought it best to be on the safe side, and to give him the benefit of a desperate doubt. It is worthy of note, as contrasting with the results obtained in rheumatic fever, that the bath made no impression upon the nerve-symptoms in our case: the subsultus and the

drowsiness were just the same at the close as at the commencement.

I have pronounced the testimony of the thermometer to be an unerring and all-sufficient guide to diagnosis. It is so when the oscillations are present, but it must be borne in mind that they may be exceptionally absent. Their absence, then, offers no decisive presumption against pyæmia, provided there be collateral evidence in its favour. In my own case they were fairly, but not fully, represented. On March 25 there was a long and rapid rise to 105·6°, but there was no corresponding fall before the early morning of the 26th, when the temperature sank to 99° after the bath, which had been administered at midnight. Again, on the evening of the 26th there was a rise to 104·4°. So far, then, the lines on the chart were strongly characteristic, and probably would have been so under any circumstances; but they cannot be taken into the reckoning: the bath intervened and spoilt their true significance. It is well also to remember that the variations may vanish altogether in any case on the approach of death.

What are we to regard as the primordial source of infection in W. S.? Not assuredly the lesions in the lungs, nor again the puriform exudations into the joints; these are well-known and stereotyped changes of a secondary order, proper to pyæmia. Dr. Bristowe has traced pyæmia to suppuration beneath the periosteum; and to this source, it may be said, must we be fain to trace it in our own case for want of a better. I confess, however, that I feel some misgivings on this score. It may be, after all, that the true fountain-head and origin of the evil has never been discovered, and that the abscesses under the periosteum are themselves secondary. When the primary mischief is small and inconspicuous, it may well lie lurking in some sequestered and unsuspected spot. It is impossible to explore the innermost recesses of the entire body, and it is pre-eminently hard to establish a negative in a post-mortem examination.

As for the treatment of the case, it would be mere waste of time to speak of it. The disease ran its course unchecked, and no measure of mine availed to postpone the arrival of death one single hour.

I have only two more matters to lay before you. 1. The spleen is reported to be small. This is an unusual occurrence in cases of blood-infection, but it may occur in pyæmia exactly as we meet with it from time to time in typhus and enteric fevers. 2. I have introduced into the notes a term which may seem to call for explanation and even apology: I have described the first heart-sound as “frapping.” The word is a homely one, but it is most expressive of the thing signified: that is to say, it expresses well and better than any scientific term a sharp first sound and a preceding momentary murmur or semblance of murmur—taken together. Provisionally, however, I speak of the first sound itself as “frapping.”

I have many times made passing allusions to that brief auscultatory sign—that dwarf-murmur or mock-murmur—on which I have ventured to bestow the name “preface” or “prefix” to the systolic sound. It may be described as appearing under two principal varieties—(1) as an undeveloped præ systolic murmur—the faint foreshadowing of its possible mature existence; (2) as an alternative præ systolic murmur taking the place of the mature murmur for variable periods, those periods lengthening as the murmur falls away in force of expression during the downward progress of the disease. In this latter case it might well be called a degenerate præ systolic murmur.

That the sign in question and the recognised murmur of mitral stenosis are essentially one and the same thing, you may convince yourselves by a few simple manoeuvres. Take a pure example of the model-murmur, and, after ascertaining its undeniable presence at the apex, shift the stethoscope inch by inch from that point; you will find that the murmur shortens in duration and lessens in intensity at every move you make in the direction of the base, until at last it merges in the merest prefix: or you may vary the experiment, and apply your ear to the left scapula; the result will, or may, be precisely the same. Again, listen to the præcordia of your patient as he lies on his back in bed, and you may hear the preface and nothing more. Raise him, and make him lean forward; you may then recall at once the pronounced murmur, and the concomitant thrill, if the thrill had no existence before, for it may coexist with the preface alone in all its forms and phases. We are forced to the con-

clusion that the substance and the shadow, the full-grown murmur and its diminutive counterfeit, are alike in their essence, and differ only or mainly in degree. Even the undeveloped form, with few exceptions, implies thickening of the mitral valve. Such thickening, you know, lies at the root of stenosis, and may become true stenosis if life only last long enough, but there is no stenosis of necessity for the time being. The alternative form, of course, has the same meaning with the murmur it replaces. Summarily, then, the sign possesses a more or less definite value; it signifies, as a rule, thickening of the mitral valve, whether it amount to stenosis or not. In the heart of W. S., thickening of the valve and its chordæ tendinæ was well displayed, but there was no narrowing of the aperture.

I have one more apology to make in this connexion. I am in the habit of using the term "compound murmur," meaning thereby an apex-murmur consisting of two parts, separated, it is true, by the intervening first sound, but for the sake of brevity in description regarded as merging in one murmur, provided always the murmur be well expressed on each side of the natural sound. If it be ill expressed before that sound—if the preceding element be nothing more than a momentary preface—it would be an excess of refinement to make use of a term which would require constant reiteration. The truth is, that over and over again, in cases of old-standing insufficiency of the mitral valve, we meet with at least the trace of a præ systolic tone, although it may be much obscured when regurgitation is in the ascendant.

I am bound, however, to give you a word of warning here. Many auscultators might maintain that the so-styled preface is no preface at all, but only part and parcel of the systolic sound itself, reduplicated, resolved into its elements, delayed in its evolution, roughened at the start, or otherwise modified. At any rate, they might put this construction upon my first variety. Some such modification there may be at times in rare instances; the point is a fine one to decide by an appeal to the carotid-pulse, the entire sequence of sounds is so swiftly past and gone. I can only say that to my own ear both the varieties afore described are in the main alike and indistinguishable; in other words, to my mind they are both in the main præ systolic. Nevertheless, I am often compelled by the exigencies of language to define my meaning in terms characterising the systolic sound. I may then speak of that sound as unnaturally changed in various ways, although on my own view the sound itself may only be sharper and clearer than natural, while the remaining characters assigned to it really belong to the period of the præ systole.

In conclusion, if I am not mistaken, if I have not strangely misunderstood the teaching of the wards and the dead-house, it appears to me that anyone who seeks to give a good account of the full murmur of mitral constriction should first deal with the fragmentary form so often heard when there is no constriction at all. Stenosis clearly is not the sole item in the reckoning. How far will simple thickening go in explanation of the phenomena?

In the undeveloped form, apart from stenosis, it is hard to believe that a few patches of interstitial change can determine the result by mere obstruction to the flow of blood within the cavity of the ventricle, for it is here usually that the swollen patches would be floating at the moment when the brief murmur is generated. Again, in the undeveloped form, apart from stenosis, it is hard to believe that the loose valve vibrates in its own substance, and imparts vibrations to the surrounding blood. A membrane whose delicacy, though damaged, is not as yet destroyed, would never vibrate at all unless put upon the stretch and fastened home to the ventricular wall in every direction. It is otherwise with the developed form of the murmur and the lesion: in this case the stiffened membrane may vibrate; and, not improbably, such vibration is largely concerned in the genesis of the murmur and the thrill, although, of course, in true stenosis there may be other, and perhaps more powerful, agencies at work. What we want, however, is some common mechanism which will fit all the facts, and bring into harmony all the varieties of præ systolic murmur, in full length or in miniature. For my own part, I offer no solution of the problem; I only wish to record my conviction that there is a problem to be solved even yet.

If you desire to master the best literature on the mitral valve, and its morbid signs in general, let me refer you to the writings of Dr. Hilton Fagge and Dr. Galabin in *Guy's Hospital Reports* and in "Reynolds' System of Medicine."

CLINICAL LECTURES ON DISEASES OF THE HEART IN CHILDHOOD.

Delivered at the London Hospital.

By ARTHUR ERNEST SANSOM, M.D. Lond., F.R.C.P.,
Assistant-Physician to the London Hospital, and Senior Physician to the
North-Eastern Hospital for Children.

LECTURE I.

CONGENITAL AFFECTIONS.

(Concluded from page 228.)

III. I now turn to the consideration of the third subdivision of cases, including those of *congenital anomaly in which there was murmur considered to be generated in the pulmonary artery or at its orifice*. It is to be noted that not all these presented the phenomena of cyanosis. The cases were eleven in number; in five there existed marked blueness, in the others varying degrees of sallowness up to the most pronounced anæmia. The diagnosis chiefly rested upon the site and characters of the murmur. In all cases this was systolic, for the most part intense, roaring or rolling, superficial, and rough; in two cases the murmur resembled in quality an anæmic bruit; in one it was of low pitch, and in one case it was only heard occasionally. Pronounced tactile thrill was noted in two cases. As regards the localisation of the murmur, in one case it was distinctly noted as occurring in the pulmonic area, a doubtful systolic murmur at the apex co-existing; in a second case the area of audibility was rather higher than that usually assigned to murmurs generated at the orifice of the pulmonary artery—its site was the junction of the first and second costal cartilages of the left side with the sternum. In this instance there was also a soft systolic murmur at the apex. In a third case, too, the site was higher than usual—close to the left sterno-clavicular articulation, but in this case the murmur was not always audible. In a fourth case the maximum was distinctly over the pulmonary artery, but the bruit was conducted towards the axilla. In a fifth case, in which there was a marked thrill over the pulmonary artery running up to the diastolic click, a prolonged systolic murmur was heard, followed by a more intense short bruit (reinforcement), abruptly terminated by the second sound: these abnormal sounds were audible, though less plainly, at the apex as well as over the aorta; a systolic bruit was heard at the back over the root of the lungs. In a sixth, a loud murmur heard over a wide area at the base and also between the scapulæ had its maximum at the junction of the third left costal cartilage with the sternum, and was conducted into the left subclavian region. In a seventh the murmur was very loud, very superficial, heard over a wide area over the left side of the chest scarcely encroaching upon the right, the maximum being decidedly over the site of the pulmonary valves. In an eighth a very intense murmur was heard at the base, but could not be located at the pulmonary orifice; it was heard loudly, as if propagated in the vessels of each side of the neck. In a ninth the murmur was heard over the right cavities, the pulmonary artery, and the vessels of the neck, and a first-sound murmur was also heard at the apex. In the tenth a loud systolic murmur, heard at the base and along the vessels, had its greatest intensity in the subclavian regions, *especially the right*; in this case there was evidence of enlargement of the thoracic glands of the right side.

And now some interesting questions arise as to diagnosis. You will notice that there are considerable differences in the area and diffusion of the systolic murmur, which I have nevertheless ascribed to pulmonary stenosis. "The area of pulmonic murmur," says Dr. Hayden in his text-book, (a) "corresponds to a circle of about two inches in diameter, covering the inner portion of the second intercostal space of the left side, and adjacent portions of the second and third costal cartilages, and also to a slight extent the edge of the sternum. *Beyond the limits of this circle murmurs of pulmonic origin are rarely audible.*"

Furthermore, Dr. Hayden says the murmur may be distinguished from systolic murmur in the aorta by its *abrupt termination in the direction upwards at the level of the middle of the second costal cartilage*: "its not being audible to the right of the mesial line of the sternum, and its non-transmission into the carotids, sufficiently distinguish it from

(a) "Diseases of Heart and Aorta," page 240.

the latter, irrespectively of the difference as regards the point of maximum intensity in the two cases." It will be at once seen that this experience is greatly at variance with my own. Let me illustrate the point by the record of a case:—*Lydia S.*, aged eight years and a half, was admitted under my care at the North-Eastern Hospital for Children on January 12, 1873. She seemed weak, and was *excessively pale*, but presented no blueness nor obvious dyspnoea. She had been since birth frequently ailing, but there was no noticeable symptom except adynamia. She was one of seven children, of whom four were living. One had died during dentition. The mother had had one still-birth; she was quite well during pregnancy, and gave no account of "maternal impression." The child had been always quiet and very intelligent, and had had no illness except what was called "gastric fever" eighteen months before admission. There was manifest a loud, rough, intense systolic bruit over the base of the heart, and diffused over a wide area; it was difficult to localise its maximum at any given point in the basic area, but it *seemed* to be loudest at the aortic cartilage. During the progress of the case there occurred frequent diarrhoea and increasing emaciation; the radial pulse became feebler to almost extinction, delirium ensued, and death on March 17, 1873. The autopsy showed a small, pale, contracted heart, weighing two ounces and three-quarters. The aorta and its valves were quite normal, but the pulmonary artery was very small in calibre (diameter four-tenths of an inch), its walls firm and rigid, so that it resembled the aorta or a systemic artery. It was a pulmonary artery in miniature, with valves minute but perfect; its capacity was about one-third that of the

FIG. 2.

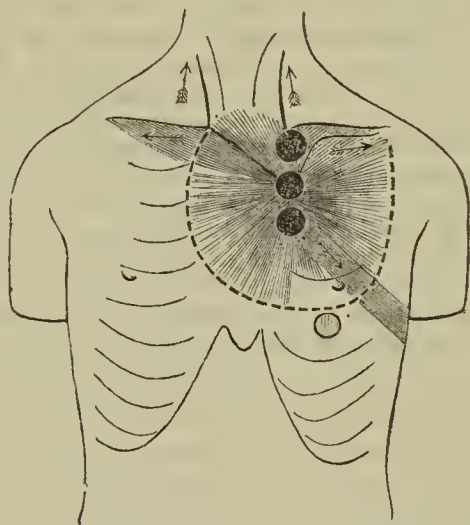


FIG. 2.—Showing areas of audibility and paths of conduction of murmurs probably associated with stenosis of pulmonary artery.

aorta. The wall of the right ventricle was greatly hypertrophied, so that it was thicker at its thickest part than any portion of the left ventricle. The foramen ovale was patent, the aperture being circular, with rounded edges, the communication between the auricles quite unimpeded. There was no imperfection in the septum between the ventricles. The valves were all healthy. It is obvious that the rules commonly laid down for the diagnosis of pulmonary stenosis from the localisation of the murmur were at fault in this case. Dr. Hayden says that pulmonary may be distinguished from aortic stenosis by the murmur being "inaudible to the right of the middle line of the sternum, in the aorta and in the carotid arteries." (b) Here the bruit was loud in all these situations—it even seemed *louder* over the aortic cartilage than elsewhere. I have a case now under treatment in which I consider the murmur is due to pulmonary stenosis, and yet it is distinctly loudest in the aortic area, and is propagated up the vessels. How, then, can the diagnosis be attained? First, supposing that the murmur be located at the base, right or left, we have to consider the great rarity of aortic stenosis as a congenital lesion, or as a disease of infant life. If, then, there is sufficient evidence that the condition dates from birth, and if there exist cyanosis or extreme pallor, there is a probability of pulmonary obstruction. It may be, however, that the murmur is hæmic. On the question of the prevalence of hæmic murmurs in children I find that my

own experience varies from that which has been recorded by some observers. Dr. West says that "those endocardial, arterial, or venous murmurs which are produced by an impoverished state of the blood, are very rarely indeed heard in children under seven years old, and are by no means common until that age is attained at which the changes that take place as puberty approaches have commenced, or are on the eve of beginning." (c) On this point I find myself differing from one with whose observations I am almost constantly in accord. I have observed, noted, and called attention to murmurs having all the characters of anæmic bruits in numbers of children of all ages: these have had all the characters usual in adult life, were localised at the base or over certain vessels, and accompanied in many instances by loud venous hum, but passing away with recovery of general health. The diagnosis of an anæmic from a pulmonary murmur, therefore, becomes important; and I think this is arrived at from the intensity, roughness, and superficiality of the latter, as well as, of course, from the concurrent symptoms. But, furthermore, I have found that anæmic murmurs *complicate* pulmonary stenosis, and, I think, tend to explain some of the phenomena of unusual conduction. In the case which I have narrated there was distinct propagation of the murmur up the vessels of the neck. The bruit here was, I have no doubt, hæmic. In another case there was not only systolic murmur heard in the vessels of the neck, but also pronounced venous hum. I think therefore that the explanation of the conduction, or apparent conduction, of a murmur the organic cause of which is obstruction of the pulmonary artery to the right of the sternum, is to be found in the co-existence of a hæmic murmur heard in the aorta and large arteries. Another cause of abnormality of conduction, as shown in one case, is, I consider, enlargement of the bronchial glands. In the case in which the bruit was heard loudly in a line leading towards the axilla, I think there must have been imperfection of the interventricular septum as a concurring cause. We must bear in mind that such imperfection, or else patent foramen ovale, is commonly met with in the subjects of pulmonary stenosis. A very important clinical feature in cases presenting this anomaly is the manifestation of *tubercle*. In the case just described there were signs of wasting and diarrhoea, and at the autopsy the lungs were found to be studded with masses of soft tubercle, the mesenteric glands were diseased in like manner, and the large intestine throughout its whole extent presented tuberculous ulceration. It is, no doubt, a correct observation made by Rokitanski and Traube, that tubercular changes in the subjects of chronic heart disease are rare. The single exception to the rule is in pulmonary stenosis; in these cases tubercular phthisis is the usual mode of death. This has been noted by Lebert and Peacock. In another case under the care of my late colleague, Dr. Woodman, closely resembling that I have just narrated, progressive emaciation and diarrhoea were manifested, and in one of the others, besides wasting, there were enlargements of glands, including, as we believe, the bronchial, which were probably becoming caseated.

IV. I now approach the consideration of a section including cases which present many difficulties in regard to precise diagnosis—cases of *congenital affection complicated by endocarditis*. Dr. West says, "Congenital malformation of the heart seems to have an important, though perhaps not an easily explicable, influence in predisposing to inflammation of its valves or of its investing membrane. Thus, in one case of acute pericarditis, in one of chronic pericarditis with affection of the endocardium, and in two others of old-standing valvular disease, there was some malformation of the heart which must have existed from birth, though in two instances the symptoms did not appear till long afterwards. It is well, then, in cases of heart disease, the origin of which is obscure, to bear in mind this possible cause of the affection." (d) Our task is to differentiate this dual condition from that of simple cardiac anomaly on the one hand, and from endocarditis as an acquired disease after birth, on the other. As an illustration of what I consider to be a clinical example of this class of cases I will take the following:—*Louisa C.* first came under my notice at the age of a year and a half. She manifested typical cyanosis, and presented clubbing of the finger-ends and curvation of the nails.

(b) *Loc. cit.*, page 1004.

(c) "Diseases of Infancy and Childhood," Sixth edition, page 545.

(d) *Loc. cit.*, page 529.

She had been more or less blue from birth, and manifested occasional cough and dyspnoea. The cardiac dulness existed over a wide area, its left limit reaching to the anterior border of the axilla, and a *systolic* murmur was heard outside the nipple. The chest-wall was much distorted, the lower ribs being curved inwards. I had the child long under care, the chief troubles being those of dyspnoea and cough, with another symptom common in my experience in these cases—stomatitis, with ulceration of the edges of the gums, oftentimes leading to considerable hæmorrhage. When she was three years and five months old, in addition to the blowing systolic murmur heard at the apex and in the axilla, there was a rolling presystolic murmur which had not been evident before. There was here no doubt of congenital anomaly; but when the case first presented itself it seemed unlikely that this should account for the very great dilatation of the left ventricle. Taking this in conjunction with the localisation of the murmur in the mitral area, I consider that the indications were that in a case of cyanosis, with intercommunication between right and left chambers, endocarditis had been set up, with the result of inducing mitral regurgitation with great dilatation of left auricle and ventricle. The subsequent development of a presystolic murmur in the mitral area confirmed me in this view, and I thought that renewed endocarditis had superadded a new difficulty, that of mitral stenosis. In this case there was no hesitation in arriving at the diagnosis that there was congenital defect, the cyanosis was so complete; in many others, however, the determination of this question may be very perplexing. We may proceed by the method of exclusion. In a given case we first inquire whether there is any history of rheumatic, scarlatinal, or other acute causation of endocarditis. Cases are thus reduced to a small minority. In these we have to investigate whether there have been troubles relating to heart or circulation dating from birth; but, even supposing that the evidence has pointed to the probability of such congenital causation, the difficulties are very great. Of such difficulty the following case, which came under the care of one of my colleagues at the London Hospital, is an example:—*Alfred M.*, aged seven years, had been short of breath from his birth, and cyanosis of the face had been noticed when he was between four and five years old, but only under circumstances of excitement. There was no history of rheumatism nor other obvious cause of heart disease. The apex of the heart was felt to beat in the sixth interspace outside the nipple-line; over the apex was a systolic thrill. A loud systolic murmur was heard with maximum intensity at the apex, but conducted to the axilla and the back; the pulmonary second sound was accentuated. Dropsy supervened, and was treated by Dr. Southey's drainage method with temporary improvement, but cardiac and respiratory troubles increased, and the child died. At the post-mortem examination the pericardium was found firmly and extensively adherent; the right cavities of the heart dilated; the left auricle dilated; the edges of the mitral curtains thickened, and the mitral orifice slightly contracted; the thickening of the endocardium extended to the aortic valves, but these latter were not so altered as to be incompetent. These changes, in fact, exactly resembled those of rheumatic endocarditis. I have formerly called attention to the occurrence, in my experience, of both pericarditis and endocarditis of the rheumatic form in children without the manifestation of any articular phenomena, and even without a single objective symptom of pain or distress.^(e) This is sufficient commentary on the difficulty of determining between a congenital and an acquired causation in the class of cases which we are discussing. I may say, however, that, in my opinion, only three other cases on my list present a probability of having congenital anomaly for a cause, and two of these were the subjects of rickets.

In conclusion I venture to formulate the following propositions:—

- (1.) In cases of congenital cyanosis in which no cardiac murmur is manifest there is probably patency of the foramen ovale.
- (2.) In cases of cyanosis with systolic or pre-systolic murmur, varying in intensity, heard over the sternal ends of the third and fourth costal cartilages or the third

intercostal space, there is probably patency of the foramen ovale.

(3.) In cases of cyanosis with loud unvarying systolic murmur of maximum intensity internal to the position of the apex-beat, but heard also at the back between the scapulæ, there is probably imperfection of the interventricular septum.

(4.) In cases of cyanosis or of marked *anæmia* in children who manifest a pronounced superficial systolic murmur at the base of the heart there is probably constriction of the pulmonary artery or its orifice. Such murmur may be complicated by hæmic murmurs.

(5.) In cases of congenital affection of the heart in which there is evidence of considerable dilatation of the left chambers it is probable that endocarditis affecting the valves has constituted a complication.

As to the treatment of the unfortunate subjects of cardiac malformation, whilst giving due weight to the facts that a large proportion of the cases die within the first year of life, and that only about 15 per cent. attain the age of twenty, I am strongly of opinion that much good may be done by judicious management. This is, I think, evident from the consideration that some individuals—the subjects even of a congenital lesion of such evil significance as pulmonary stenosis—have attained the ages of forty, fifty, and even fifty-seven years, as recorded by Kussmaul, Peacock, and Stölker. It is most improbable that such patients should not go through periods of peril in which treatment is of much avail. The chief indications for treatment are to improve the conditions of cardiac force, to favour the oxygenation of the blood, to obviate the consequences of the deficient peripheral circulation, and to protect from adverse influences from without. I am sure that I have seen many cases greatly improve under treatment. The clothing of the little patients should be more than usually warm; the extremities—the temperature of which is sometimes so low as to be more than 20° under the normal—may with advantage be encased in cotton-wool. As regards internal remedies, I have seen the best results from the administration of iron and tincture of digitalis, the latter in small doses (℥ss. to ℥ij.), continued for periods of two or three weeks, with intervals of like length. Cod-liver oil is also often of essential service, and I think I have seen good result from its inunction in some cases. Thus, I think, we best fulfil the indications of improving the oxidation of the blood and increasing the *vis à tergo* of the right ventricle, whereby the pulmonic obstruction may be in a considerable degree overcome. The drawback to digitalis in these cases is that it sometimes induces sickness; and it is chiefly for this reason that I counsel its administration in very small doses. Some children are hopelessly intolerant of it. I do not think that there is any scientific reliance to be placed on the plan of treatment by chlorate of potash or peroxide of hydrogen, as has been recommended. It is, I consider, clear that chlorate of potash does not yield oxygen to the blood, but is eliminated unchanged; and as regards peroxide of hydrogen, it gives up its extra equivalent of oxygen so readily that long before it can be absorbed from the stomach it is no longer peroxide of hydrogen, but water.

THE NEW RIVER COMPANY.—This Company have caused all cistern-overflow pipes, in at least some parts of the district supplied by them, to be diverted or cut off from immediate connexion with water-closets and sewers, thus preventing the water in the cisterns from being contaminated by sewage-gases. This sanitary precaution is a very important one, and the Company have done good service in enforcing it.

FOREIGNERS PRACTISING IN ITALY.—In answer to numerous complaints of illegal practice of medicine and surgery in Italy, *Lo Sperimentale* of July observes that the sole law relating to this question is contained in the 96th Article of the "Regolamento Sanitario," which declares that it is conceded to physicians and surgeons who have obtained the diploma of some foreign university, school, or college of medicine that they may practise, but only among foreigners, on presenting such diploma to the competent authority. Those who complain of this law for allowing the possessor of any diploma to practise on merely showing it to the authorities, declare that it is far too vague and indefinite, and calls for reformation.

(e) "Physical Diagnosis of Diseases of the Heart," Second edition, page 100. London: Churchill, 1876.

ORIGINAL COMMUNICATIONS.

THE TREATMENT OF HIP-JOINT DISEASE.

By WM. ALEXANDER, M.D., F.R.C.S. Eng.,
Visiting Surgeon to Liverpool Workhouse Hospital.

Excision of the hip is not *per se* an operation very dangerous to life, and a retrospect of personal experience in this branch of operative surgery should include, besides the actual mortality, the subsequent results, general, local, and locomotive. During a study of the cases under my observation for the past few years my attention was arrested by the curious fact that exactly one-half (fifteen) had been excised, and the other half allowed what benefit rest, nature, and good food could bestow. A still closer study of these thirty cases showed that those treated by excision were almost similar, as to present condition and to prognosis, to those that were left to the expectant treatment. The reason why none of the latter were operated on was, that the parents either removed the child from hospital at the mere suggestion to them of the advisability of operative treatment, or refused permission to operate until too late. Only one case was too far advanced to prevent my proposing operation,

especially as I knew the proposal would not be entertained; and it was as good a case for operation as Case 12, Table I., where amputation was performed, and where the boy's life was saved. Below twenty years of age excision of the hip is much less fatal than above that age (Bryant, etc.). A comparison of the tables will show that the age of the patient operated on was not more in favour of a low mortality than the age of those left to nature, the average age in Table I. being fifteen years, and in Table II. less than twelve years. The result, as regards mortality, is that of those mentioned in Table I. twelve are living at the present time; of the four that died, one died from shock, two died from exhaustion induced by suppuration some time after operation (in which cases the operation merely failed to relieve the symptoms), and one died (two years after excision, and one year after amputation had been performed) from the diarrhoea of amyloid disease. Of those who recovered from the operation, eight have good useful limbs, three have perfect health, but have lost the affected member by amputation, and one, by the carelessness of her friends, who took her home soon after the operation, has the leg ankylosed, contracted, and useless.

Of the cases presented to us by Table II., seven are living and eight dead. Four of these were cured; another, I have no doubt, has died since; and of the remaining two nothing is known. There are a number of other points presented to us by Tables I. and II. that would tend to show the

TABLE I.—Analysis of Fifteen Consecutive Cases of Hip-Joint Disease in which Excision of the Head of the Femur was performed.

No.	Sex.	Age.	Admitted.	Duration of disease.	Leg affected.	Cause.	Duration and nature of previous treatment.	Result.—Remarks.
1...	M	13	April, 1875	1 year	Right	Unknown	Rest and Thomas's splint for eight months	Complete cure in a month. No sinuses; arc of motion 45°.
2...	F	9	June, 1874	2 years	Left	Unknown	Rest for two years ...	Death from shock in twelve hours after operation.
3...	M	14	May, 1876	6 „	Right	Unknown	Rest and weight for nine months	Recovered. Convalescence three months; useful limb; a small sinus; no motion (joint still sound).
4...	M	6	Aug., 1875	2 „	Left	Unknown	Uncertain; was in several hospitals	Death seven weeks after operation, from acute albuminuria, with œdema.
5...	F	12	July, 1876	1 year	Left	Unknown	Rest for ten months ...	Recovered. Convalescence four months; a firmly ankylosed limb (joint still sound).
6...	F	15	April, 1877	14½ years	Right	Unknown	Often in hospitals ...	Died six weeks after operation, from diarrhoea and hectic, to save from which the operation was performed.
7...	F	30	May, 1878	10 „	Right	Fall ...	Rest at various times ...	Recovered in three months. An excellent limb; motion 50°.
8...	F	8	Dec., 1878	2 „	Right	Fall ...	Was six months at rest in a hospital	Recovered in six months. Convalescence protracted by measles; now a useful limb, firmly ankylosed; two sinuses.
9...	M	34	Jan., 1877	9 months	Left	Intra-capsular fracture	Twelve months at rest, etc., before operation	Recovered in four months. Convalescence protracted by pyæmic symptoms; motion 45°.
10...	M	7	May, 1875	2 years	Left	Fall ...	Rest	Excision was performed at another hospital; amputation here. Is now in excellent health.
11...	M	24	May, 1875	Several years	Right	Unknown	Rest at various hospitals	Failed. Amputation performed; died a year after from amyloid disease.
12...	M	8	Oct., 1877	A few weeks	Left	Injury ...	Rest and weight for eight months	A relapse took place six months after, and amputation saved the boy's life; he is now in excellent health.
13...	F	8	Nov., 1875	3 years	Right	Fall ...	Rest, etc., for considerable time	Limb flexed and useless; some sinuses; ankylosis. Relatives had evidently neglected her after operation (performed elsewhere).
14...	F	14	Feb., 1879	2 „	Left	Fall ...	Rest for some time ...	Excised in a neighbouring hospital; a good result. Ankylosis has taken place; can walk fairly; general health good.
15...	F	19	June, 1878	2 „	Right	Fall ...	Thomas's splint, rest, aspiration, etc., for two years	A good result; motion 45°; one small sinus, healing.

advantages of excision over expectant treatment, but we will not mention them, as in this comparatively small number of cases it is quite possible that these advantages may be only apparent or accidental. It may be assumed, I think, that of thirty consecutive cases of hip-joint disease admitted into the Liverpool Workhouse Hospital during the period covered by the dates of admission, the lethal, local, and locomotor results were at least *twice* as favourable where *operations* were performed as where they were not. The time occupied in treatment was very much *less*.

By means of progress in diagnosis and treatment of the earlier stages of hip-joint disease, the necessity for excision has been reduced to a very large extent. These cases, however, show that it cannot be dispensed with altogether, as

some apostles of the expectant treatment affirm. Many of the cases in both tables had been treated by the strongest advocates of rest and special splints, and the refusal of permission to operate could sometimes be traced to belief in a medical opinion, somehow obtained, that rest alone would cure the child.

The operative procedure differs from that ordinarily recommended in text-books, as I only remove as little of the femur as is consistent with the complete removal of the disease. Removal of the head alone is not often followed by serious shock; but below the neck, the nearer the saw approaches the medullary canal of the shaft of the femur, the greater are the immediate dangers, the remote unfavourable possibilities, and the mechanical difficulties.

TABLE II.—Analysis of Fifteen Consecutive Cases of Hip-Joint Disease in which Expectant Treatment was employed.

No.	Sex.	Age.	Admitted.	Duration of disease.	Leg affected.	Cause.	Duration and nature of treatment.	Result.—Remarks.
1...	M	13	June, 1875	2 months	Right	Fall ...	Six months; rest and splints	Death. A good case for excision, but leave to operate refused.
2...	M	9	June, 1875	9 „	Left	Unknown	Four months; rest ...	Death. Amyloid disease and dropsy. Operation refused.
3...	F	10	Oct., 1875	Uncertain	Left	Unknown	Unknown	Death. Phthisis and amyloid disease.
4...	F	9	Sept., 1875	Uncertain	Left	Fall ...	Rest; Thomas's splint for a year and a half	Death. Amyloid disease; operation refused.
5...	F	8	Nov., 1875	Uncertain	Right	Unknown	Extension and Thomas's splint	Cured by ankylosis in eighteen months.
6...	F	7½	April, 1875	2½ years	Right	Fall ...	Rest; extension for two years and a half	Death. General amyloid disease. In various hospitals.
7...	F	5	Sept., 1875	Uncertain	Left	Unknown	Rest; extension ...	Death. Amyloid disease.
8...	M	6	Dec., 1875	1 year	Right	Fall ...	Rest and extension ...	Went out in four months <i>unrelieved</i> . Operation refused.
9...	M	13	Jan., 1876	2 years	Left	Fall ...	Four months and a half; Thomas's splint	Cured. Disease in early stage; no sinuses; health good.
10...	M	32	Mar., 1876	5 „	Right	Cold ...	Rest for eight months...	Discharged with gradually increasing amyloid disease. Refused operation.
11...	M	3	Jan., 1876	1 year	Right	Measles..	Extension and Thomas's splint for eighteen months	Cured. Partial ankylosis.
12...	F	30	June, 1876	2 years	Left	Blow ...	Thomas's splint ...	Discharged at the end of six months; <i>relieved</i> .
13...	M	13	May, 1877	5 „	Right	Fall ...	Rest in bed	Well in a month.
14...	M	15	Aug., 1877	14 months	Left	Fall ...	Rest	Death. Refused operation till too late.
15...	M	7	Oct., 1877	11 „	Right	Unknown	Rest	Death a month after; too far advanced for operation.

REMARKS ON
THE TREATMENT OF CLEFT PALATE BY
OPERATION.(a)
By EDMUND OWEN, F.R.C.S.,
Senior Assistant-Surgeon to St. Mary's Hospital, and to the Hospital for Sick Children, Great Ormond-street.

IN all but the most recent treatises on the subject of closure of cleft palate by operation, it was advised, indeed it was a matter of obvious necessity, that no active surgical interference be attempted before puberty, or until the unfortunate subject of the fissure were possessed of sufficient fortitude and self-control to prevent his obstructing the surgeon in his tedious work.

In the year 1864, Sir William Fergusson wrote that he had never operated for the congenital defect under chloroform, but that whilst he did not deny the possibility of doing so, he was of opinion that as a rule it was absolutely necessary to have the patient conscious, so that he might facilitate the steps of the operation in various ways. Thus, at the dictation of the operator, the patient could move his head from one position to another, clear his throat of the collecting blood, bring into view the muscular bands of the soft palate by swallowing, and so on.

But in those times the operation was so complicated, and so distressing to the unhappy sufferer, that but few surgeons made themselves practically familiar with its details.

(a) Read at a meeting of the Harveian Society of London, May 15, 1879.

Fergusson's operation, though accomplished with simple ease and grace by that great master, demanded for its successful performance a more than general knowledge of the palato-pharyngeal region. The knife, bent so as to cut round the corner, and in the recesses of the pharynx which are darkened by the divided curtain of the soft palate, had to be directed by a cunning hand, in order that its edge might surely sever the fibres of the levator palati, without risk of wounding, amongst other innocent structures, the neighbouring internal carotid artery. Mr. Pollock, however, greatly simplified this part of the operation, by dividing those tissues which interfered with an unrestrained approximation of the pared edges of the cleft, by means of a straight and narrow-bladed bistoury, which he thrust, from before backwards, through the soft palate.

My colleague, Mr. Thomas Smith, of the Children's Hospital, was the first to show that cleft palate might be operated upon under the influence of chloroform, thus removing from the proceeding much of the dread and distress; and he also showed how, by this means, it was not only possible, but also expedient, to operate during infancy, and to close the fissure before the voice had permanently assumed the characteristic and unpleasant tone.

The reading of Mr. Smith's paper before the Medical and Chirurgical Society, eleven years ago, exerted considerable and lasting influence upon the question of the age at which the operation should be undertaken. Mr. Pollock, writing in the first edition of "Holmes' System of Surgery," said:—"For many reasons the age of fifteen appears to be the earliest period for the operation." But in the second edition of the same work, which appeared in 1870, Mr.

Pollock remarked that the operation might be performed when the child is two or three years old.

The same writer, quoting from a memoir on the subject by Ehrman, records the deaths of four children who had been operated on at ages varying from four days to two months. I apprehend that loss of blood was the cause of the fatal result; for incised wounds in mucous membranes bleed freely, and young children are specially intolerant of loss of blood. As one does not operate upon the cleft in order that the child may take its food the better, but in order that the voice may early begin to improve, it is evidently not necessary to undertake the operation at a much earlier age than two years. From two and a half to three years is the age at which I prefer to operate, for then the mouth, fixed open by a gag, is of sufficient size to allow of easy manipulation, and the child is strong enough to endure, and not to be distressed by, a considerable amount of bleeding. At an earlier period the soft parts are not, I imagine, well calculated to bear the strain or pressure of sutures, whilst if the buccal mucous membrane swell up after the operation there may be a difficulty in making the child swallow a sufficient amount of nourishment.

And here I would refer to the advisability of the practitioner making an examination of the front and back of the roof of the mouth in those babes who are more greedy than successful in their endeavours to feed from the breast or bottle. If there be a cleft of the *hard* palate it is quickly discovered by the nurse or mother, for the babe being unable to create a vacuum above the tongue, cannot suck at all; but if there be a fissure of only the *soft* palate the child is able to obtain *some* milk, but not getting sufficient, it becomes thin and pale. I saw an instance of this the other day; on making a careful search I found an unsuspected fissure through the soft palate. To such children the mother's milk should be administered in a warm spoon, and if the natural supply seem not sufficient, it may be supplemented by warm cow's-milk and water with a little sugar. When the fluids run out from the mouth through the nares, the babe should be held, when being fed, almost upright in the nurse's arms, so that the descent of the milk into the stomach may be rendered as easy and convenient as possible.

Concerning the details of the operation I shall not say much on this occasion. If the cleft extends from teeth to uvula it is expedient to deal with the soft palate first, for if this operation succeeds, the gap in the hard palate does, without doubt, begin to contract. I have occasionally succeeded in closing the whole of the fissure at one operation, but often the success is only partial; perhaps the shock, perhaps the unavoidable loss of blood, interferes with the perfect result. Smith's well-known gag (specimens of which I show) renders great service to the operator, for it not only keeps the mouth fixed widely open, with the commissures of the lips well retracted, but it also depresses the tongue, and thus leaves the view of the back of the mouth clear and unimpeded.

(The gag is also useful for operations upon the pharynx or tonsils.)

The child's head and shoulders may be conveniently supported upon an air-pillow, and, to commence the operation, the tip of the uvula should be held by long mouse-toothed forceps, and each side of the cleft thoroughly denuded of mucous membrane.

It is well to avoid using sponges as much as possible, because their contact with the mucous membrane stimulates the glands to such an extent that the parts become quickly coated with a thick, glairy secretion.

Mr. Pollock starts by dividing the muscles of the soft palate, but as the incisions are followed by hæmorrhage, it is better to perform this part of the operation when the fissure has been closed.

Having approximated the pared edges of the uvula and soft palate by about six wire sutures, the tension of the united halves of the velum is usually so excessive that very free lateral incisions are necessary to prevent the sutures cutting their way out by ulceration. These incisions, which usually bleed freely, should be the finishing touches of the operation, and the hæmorrhage is usually arrested by injecting by the mouth and nares a few syringefuls of ice-cold water. I have now under my care, in the Children's Hospital, a girl about three years old, who was the subject of as wide a cleft through the hard and soft palate as I ever saw; three weeks since, having brought together the edges

of the soft palate, I made the lateral incisions with the slender, probe-like blade of Paquelin's *thermo-cautère*, with the view of obviating hæmorrhage. I am glad to say that the experiment has been a complete success. There was not a drop of bleeding; there has been no sloughing of the parts; the palate has united entirely, as far as it has been operated upon; and the cautery wounds have quite filled up. I venture to regard this as an important modification in the operation, for the muscular effort of vomiting the blood, which has trickled from the incisions as usually made, and the injected water, some of which is apt to find its way into the stomach, cannot but disturb the recently closed cleft. Moreover, the less blood that the child loses at and after the operation, the better.

As regards the materials of which the sutures should be composed, I have no hesitation in giving preference to silver wire, whether for approximating the edges of the mucous membrane which has been detached from the under-surface of the hard palate, or for use in the soft palate and uvula. Mr. Pollock advises silk; Mr. Thomas Smith uses sometimes wire, and sometimes horsehair which has been soaked for a time in warm water—the latter material he employs chiefly for the soft palate and uvula.

It is said that silk is preferable, because, when the sutures have done their work, they can be so easily removed; but in my opinion they have this disadvantage—it may be in theory only that the objection exists—soaking up fluids, they swell and are apt to irritate. Certainly the wire sutures do not irritate, and I hardly ever remove them; I have never found them give rise to inconvenience, and I allow them to find their own way out, how they like and when they like. The other day, when closing the remaining part of a cleft, a year after an operation which had been only partially successful, I came across several wire sutures which were harmlessly lodging in the mucous membrane.

Concerning the after-treatment of children that have been operated on for cleft palate there is nothing new to say. Whilst waking they must be constantly amused and petted; whilst sleeping they must be carefully watched lest they should wake up crying. With or without intention they are apt to get their fingers into the mouth, to scratch or press upon the painful part, and so spoil the surgeon's work. Without a conscientious and skilled nurse the operation is almost certain to be a failure. Food should not be given too soon after the operation, lest the child be sick. At first it should be quite fluid or a thin pulp. If the child is good he may be allowed to run about in a week, or even less, after the operation, or may be carried out into the fresh air if the weather is warm.

I have adopted Mr. Smith's plan of never looking into the mouth to see how the operation is going on until the end of the week; and if the surgeon does not gratify a reasonable desire to learn the state of the parts, the parents and attendants are content to refrain from indulging what is certainly more than a justifiable curiosity. In this way the little patient is spared much unnecessary worry and depressing fear. The child is taught not to speak and encouraged not to cry; and it is well to begin this rigid discipline a day or two before the operation, so that everything may not be strange, new, and alarming directly after it. If the weather be very hot or very cold an operation should not be undertaken; and it is well to see that there are no carious teeth, which might set up stomatitis. The general condition may be improved by the administration of cod-liver oil by the skin and by the mouth, and no operative interference should be undertaken unless the patient is in a good state of health.

Lastly, it is a source of considerable satisfaction to the operator to know that though a carefully closed fissure may "go to pieces" after a most tedious operation, still granulations may spring up from the raw edges to such an extent as to grow across and completely and firmly close the gap by second intention; and that apertures which are but partially closed will thus, under nature's beneficent assistance, continue to fill up, and in some cases entirely disappear.

SUICIDE BY VENESECTION.—In the *Progrès Médical* of August 23 a remarkable case is related by Dr. Lafont, in which a robust man, sixty-two years of age, committed suicide by opening the median-cephalic vein by means of a razor, as much as six litres of blood having been discharged.

SOME EXPERIMENTS ON THE RELATIVE VALUE OF ANTISEPTICS.

By WILLIAM HARDING CROWTHER,

Late Assistant Medical Officer, Acton General Dispensary.

As there was a good deal of doubt in my mind, and perhaps amongst the profession generally, as to which are really the most powerful antiseptics, and especially regarding the value of the more recently introduced ones, I have been performing a few simple experiments with a view to assist in solving the question. I chose fresh cow's milk as a very suitable matter to experiment upon; and to fixed quantities of this fluid I added definite amounts of the commoner antiseptics in order to observe which of these substances would most effectually prevent the formation, or at least the specific effect, of the bacterium lactis of Lister, as shown by the fermentation of the milk—which process is made evident by its acid reaction, coagulation, and unsweet smell.

In performing experiment "A" I took twenty-four test-tubes and placed in each two fluid drachms of milk, adding to each two grains of the solid or two minims of the fluid antiseptic used. These tubes were left exposed to light and air, the mouths of them being lightly covered to keep out the dust, and their contents were carefully examined every day. The following are the results:—

Experiment A.

1. *Fluid Carbolic Acid*.—18th day: Not coagulated; faintly acid; smell disguised.
2. *Camphor*.—3rd day: Coagulated; acid; smell disguised.
3. *Mr. Kingzett's Sanitas*.—3rd day: Coagulated; acid; not sweet.
4. *Dr. Bond's Terebene*.—3rd day: Coagulated; acid; smell disguised.
5. *Dr. Bond's Cupralum*.(a)—1st day: Faintly acid. 3rd day: Coagulated; smell disguised. 8th day: Acid; mouldy.
6. *Burnett's Fluid*.(a)—1st day: Coagulated; acid. 3rd day: Not sweet.
7. *Wood Charcoal*.—3rd day: Coagulated; acid; not sweet.
8. *Chloride of Lime*.—3rd day: Acid; not sweet.
9. *Salicylic Acid*.(a)—1st day: Coagulated; acid. 10th day: Not quite sweet.
10. *Chloralum*.(a)—1st day: Coagulated; acid. 3rd day: Not sweet.
11. *Iodine*.—30th day: Not coagulated; smell disguised.
12. *Ferris's Thymol*.—1st day: Smell somewhat disguised. 5th day: Coagulated. 14th day: Not quite sweet. 30th day: Not acid.
13. *Ferris's Thymol Disinfectant*.(b)—4th day: Faintly acid; not quite sweet. 5th day: Coagulated; acid.
14. *Liquor Sodæ Chloratæ*, B.P.—4th day: Faintly acid; not quite sweet. 5th day: Coagulated; acid.
15. *Sulphate of Copper*.(a)—1st day: Coagulated; acid. 21st day: Remains unaltered. 30th day: Not quite sweet.
16. *Bichromate of Potash*.(a)—1st day: Faintly acid. 30th day: Smells sweet; not coagulated.
17. *Acid. Sulphuros.*, P.B.(a)—2nd day: Does not redden litmus. 3rd day: Not quite sweet. 4th day: Coagulated; faintly acid. 5th day: Acid.
18. *Sulphate of Quinine*.—4th day: Coagulated; faintly acid; not sweet.
19. *Saturated Solution of Potass. Permang.*—6th day: Faintly acid; not sweet.(c) 7th day: Coagulated; acid.
20. *Common Salt*.—4th day: Very faintly acid; not quite sweet. 6th day: Acid. 7th day: Coagulated.
21. *Chromic Acid*.(a)—1st day: Coagulated; acid. 2nd day: Smell somewhat disguised. 30th day: Remains unaltered.
22. *Boracic Acid*.(a)—1st day: Very faintly acid. 6th day: Acid. 21st day: Coagulated. 24th day: Not quite sweet.
23. *Glycerine*.—4th day: Faintly acid; not sweet. 5th day: Coagulated; acid.
24. *Rectified Spirit*.—4th day: Very faintly acid; not quite sweet. 5th day: Coagulated; acid.

In performing experiment "B," I proceeded in the same way as before, only using double the quantity of some of those antiseptics which appeared from "A" to be the weaker, and half the quantity of those which appeared to be the

stronger. In the following table, therefore, one grain or minim of the antiseptic was added to two drachms of milk in Nos. 1 to 8, and four grains or minims to the same quantity of milk in Nos. 9 to 14. In Nos. 15 to 18 I added two minims of the antiseptic to one drachm of milk, and kept it tightly corked in small bottles, the drugs used being so volatile. In No. 19 I used two drachms of boiled milk and four minims of sanitas, as the peroxide of hydrogen (to which its virtues are said to be greatly due) is rapidly decomposed by uncooked milk. No. 20 contained simply two drachms of boiled milk for the purpose of comparing with No. 19.

Experiment B.

1. *Fluid Carbolic Acid*.—1st day: Smell disguised. 16th day: Not coagulated; faintly acid.
2. *Salicylic Acid*.(d)—1st day: Coagulated; acid. 16th day: Not quite sweet.
3. *Chromic Acid*.(d)—1st day: Coagulated; acid. 30th day: Smells sweet.
4. *Boracic Acid*.(d)—1st day: Very faintly acid. 8th day: Not quite sweet. 9th day: Not coagulated; acid. 17th day: Acid.
5. *Thymol*.—1st day: Smell somewhat disguised. 2nd day: Faintly acid. 5th day: Acid; smells sweet. 8th day: Coagulated.
6. *Sulphate of Copper*.(d)—1st day: Faintly acid. 2nd day: Coagulated. 3rd day: Smells somewhat sour.
7. *Bichromate of Potash*.(d)—1st day: Faintly acid. 30th day: Not coagulated; smells sweet.
8. *Iodine*.—1st day: Smell somewhat disguised. 17th day: Faintly acid. 30th day: Not coagulated.
9. *Sanitas*.—3rd day: Coagulated; acid; not sweet.
10. *Terebene*.—1st day: Smell disguised. 3rd day: Coagulated; acid.
11. *Burnett's Fluid*.—1st day: Coagulated; acid. 16th day: Smells sweet.
12. *Saturated Solution of Potass. Permang.*—3rd day: Smells sour. 5th day: Faintly acid. 6th day: Acid. 8th day: Coagulated.(e)
13. *Common Salt*.—2nd day: Faintly acid; not quite sweet. 5th day: Acid.
14. *Glycerine*.—3rd day: Faintly acid. 5th day: Coagulated; acid; smells sour.
15. *Liquor Sodæ Chloratæ*, P.B.—3rd day: Faintly acid. 4th day: Not quite sweet. 5th day: Acid. 6th day: Coagulated.
16. *Acidum Sulphurosum*, P.B.(d)—1st day: Not coagulated; acid. 11th day: Not quite sweet. 20th day: Coagulated.
17. *Rectified Spirit*.—2nd day: Faintly acid. 3rd day: Coagulated. 5th day: Acid.
18. *Chloralum*.(d)—1st day: Coagulated; acid. 7th day: Not quite sweet.
19. *Sanitas*.—1st day: Smell slightly disguised. 5th day: Acid. 8th day: Not sweet.
- 20.—5th day: Acid. 7th day: Not sweet.

Several apparent discrepancies will be observed in the above. For instance, the milk containing one grain of salicylic acid smelt sweet up to the 16th, whilst that containing four grains did not smell quite sweet on the 10th. These discrepancies may perhaps be explained by difference in the temperature, etc., at the times when the experiments were performed. However, I think these experiments help to prove that the strongest antiseptics are, as is already pretty generally known, chromic acid, bichromate of potash, iodine, sulphate of copper, boracic, carbolic, and salicylic acids, and chloride of zinc. Amongst these I would also place thymol, which seems to be a promising aspirant for antiseptic honours, and moreover has the advantage of possessing an agreeable scent. They also tend to show that many supposed antiseptics, and especially several newly introduced substances which boast of being "stronger than carbolic acid," and which are largely advertised, such as terebene and sanitas, are (whatever their disinfectant virtues may be), only very slightly, if at all, antiseptic in their action. With regard to the latter substance, I may mention that a bottle of "toilet sanitas fluid" became turbid and filled with fungus about a couple of months after I received it. Neither do I think that Mr. Kingzett's fluid has the

(a) These bodies have an acid reaction.

(b) Contains four grains of thymol in each fluid ounce.

(c) Colour produced by the permanganate disappeared on this day.

(d) These bodies have an acid reaction.

(e) Colour produced by the permanganate disappeared on this day.

power of destroying the vaccine virus. At least, I vaccinated two infants on their right arms in several places with pure lymph, and at the same time on their left arms (also in several places) with the same lymph diluted with an equal quantity of sanitas, and allowed to stand a few minutes before using, and in both the children all the places took on both arms. Furthermore, I have used sanitas as an antiseptic dressing to wounds, with but little, if any, good effect. Liverpool.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

CASE OF DIABETES ASSOCIATED WITH TEMPORARY MANIA.

(Under the care of Dr. PAVY.)

COLIN F., aged twenty-seven years, a tailor, was admitted on January 27. His father, who was a very hard drinker, died at the age of twenty-eight years, after melæna, hæmatemesis, etc. His family history in other respects was fairly good. He states that until the age of seventeen years he was always well; at that age he was laid up with headache and sickness, and on the fourteenth day of his illness small white spots appeared on his hands and all over his body. These spots were said to have increased in size since, and to be larger in warm than in cold weather. When about nineteen years of age, patient was again laid up for about six weeks. The doctor who attended him then used to examine his urine, and said there was something wrong with his kidneys. He did not waste, but suffered from intense debility and loss of appetite. In January, 1878, he was again seen by a medical man, who reported him to be at that time much wasted; he had diarrhoea, and the motions passed were quite white. Temperature and pulse were normal; the urine was decidedly saccharine, but its specific gravity was 1018. He had then been feeling very ill and losing flesh for about six weeks. He was treated with podophyllin and taraxacum, and in about a month became much better. Patient had always been steady, but somewhat dull in his intelligence. For the last five or six years he had been at times irritable, and had struck and sworn at his mother; again he had been just in the opposite mood, being good-tempered and quiet. In December, 1878, he sought advice for an eruption about the face and neck which looked like suppurating acne. His urine was then saccharine, and its specific gravity was 1038. He recovered from the skin disease, but looked very ill. He had never suffered from hunger or thirst, but had wasted away very much for a year or so.

On admission the following notes were taken of his condition:—"Patient is a poorly nourished, emaciated man; his expression is heavy; the eye is dull, the pupils are dilated and irregular; he is slightly deaf. The natural pigment of the skin has disappeared in several places over the arms, trunk, and legs (probably the spots mentioned above), and where present the pigment seems to be of a darker shade than natural. The heart and lungs are fairly healthy; the splenic and hepatic dulness are normal. The urine is of a normal yellow colour, specific gravity 1013, not albuminous, but containing a small quantity of sugar."

Until February 21 there was nothing unusual in patient's condition. He was so exceedingly weak that he could scarcely walk. The urine passed was not excessive in quantity—from two to three pints daily, and on February 20 it was found to contain about thirteen grains of sugar to the ounce; the specific gravity remained low. In other respects his condition was unaltered, and he had remained quiet and well-behaved. On February 21 it was noticed that patient became restless and discontented without any apparent cause, and in the course of the day he demanded his discharge and attempted to leave the hospital. He was, however, too weak to get out of the building, and had to be carried back to his bed in the ward, where he became furiously maniacal and had to be held down. In about an hour he seemed to have regained his usual mental condition, and then expressed himself as being very sorry for his conduct in attempting to leave

the hospital and in creating a disturbance. A chloral draught was given to him at bedtime, and on the following day, after a good night's rest, he said he could remember nothing that he had done, but only knew that he had not been "quite right." This attack, which was probably of the same nature as those which were said to have occurred at intervals during the previous five or six years, was the only one of the kind which was noticed in the hospital. In the subsequent course of the case the only points worthy of remark were that the specific gravity of the urine varied considerably, ranging from 1013 to 1035, and that it remained saccharine, the sugar varying in quantity from fifteen to thirty-five grains per ounce. Patient still remains in the hospital in August, the sugar diminishing slightly, and his general health improving. The treatment throughout was of the ordinary character: patient was placed on a non-amylid diet, and opium was given, at first in half-grain doses, later on in doses of a grain and a half, with half a grain of extract. nucis vomicæ three times a day. The chief interest of the case lay in the peculiar maniacal attacks which apparently ushered in the diabetes, and which were probably associated with some disturbance in the grey matter of the cerebrum. If the occurrence of the mania along with the diabetes was not accidental, the existence of the latter disease was probably due to vaso-motor disturbance in the vessels supplying the liver, set up by the cerebral lesion. This theory concerning the causation of diabetes, it will be remembered, has been already advanced by Dr. Pavy. It may be noted that the method used for estimating the amount of sugar in the urine in this case and in other diabetic cases at Guy's, is that which Dr. Pavy brought before the Royal Society early this year, a full account of which will be found in the numbers of the *Medical Times and Gazette* for March 8 and August 23. The manipulation of the test is found to be easy; and as the results are exact, the method is found to be of great value where careful quantitative analysis is wanted.

ST. THOMAS'S HOSPITAL.

CASE OF POISONING BY HYDRATE OF CHLORAL.

(Under the care of Dr. STONE.)

[Reported by Mr. HADDON, Medical Registrar to the Hospital.]

E. T., aged forty, civil engineer, admitted into St. Thomas's Hospital on July 2. The patient had been found in a comatose condition on the afternoon of the day of admission, at a coffee-house where he had slept the previous night. He had swallowed fifteen drachms of the officinal syrup of chloral, containing 150 grains of chloral. The remainder, contained in a labelled six-ounce phial, enabled the quantity to be easily measured. The exact time of taking the dose was not known.

On admission, he was in a state of partial coma attended by considerable collapse. The breathing was laboured, the face was flushed, and there was nearly complete insensibility of the conjunctivæ; the pupils were rather contracted, and the extremities blue and very cold. The contents of the stomach, which were of a light yellow colour, were at once evacuated by the stomach-pump. He occasionally moved his hands, but showed few signs of consciousness beyond this. He objected to medicine, and spat out part of it. The temperature was 98.6°; pulse 108, very feeble and compressible; cardiac impulse insensible; respirations 36. Four hours afterwards the temperature was 100.6°; the pulse 108 and stronger; the respirations 42. The cardiac impulse, which was previously scarcely perceptible, was readily to be felt.

July 3.—Temperature 99°; pulse 108, very feeble and compressible; respirations 28; face flushed, pupils contracted, hands cold; rather restless, tossing about in bed and occasionally trying to get up; fairly sensible; perfectly rational, answering in monosyllables. No disease of any organ was detected on examination.

4th.—Drowsy, but answering rationally; careful not to commit himself to any damaging statement, and probably telling falsehoods. Pupils sluggish, but act well after excitement. Pulse feeble, rapid, and readily accelerated after excitement, rising to about 128; respirations 32, not stertorous. Distinct sweet odour of breath, resembling that of chloroform. The urine was passed involuntarily at first,

but afterwards consciously. The hands are cold, the feet fairly warm. No fulness of jugulars, no pulsation of carotids, no spasm, and no paralysis.

The patient recovered without further symptoms. His recovery was, however, retarded by two small blisters on the feet, which suppurated, and by a red, brawny, circumscribed patch on the right buttock. Of these injuries he could or would give no account; they were probably burns and a bruise of accidental nature, self-inflicted during a condition of drunkenness. There was no evidence of suicidal intent. The treatment consisted chiefly of stimulants, half an ounce of brandy with small quantities of ammonia and ether being given every two hours at first, and then gradually reduced in quantity. Mustard-poultices were applied to the calves and præcordial region. The bowels were freely opened by ol. crotonis $\mathfrak{M}\mathfrak{j}$. The chief points to be noticed in the case were (1) the large and accurately ascertained dose; (2) the very considerable variation from the symptoms of chloral poisoning as recorded by Dr. Oscar Liebreich, especially in respect of lowered temperature, slow respiration, and the state of the pupils. (3) The absence of any delirium or mental disturbance; his answers, even during the comatose stage, being not only rational, but cautious and deliberate.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 6, 1879.

PROTOPLASM: PROFESSOR ALLMAN'S ADDRESS TO THE BRITISH ASSOCIATION.

THE address, as President of the British Association, by Professor Allman, we have already laid before our readers. The President, who now unfortunately, from failing health, no longer sits in the chair where first was taught with authority the doctrines of natural science, now so popular, then so neglected—that famous Edinburgh Chair of Natural History, dating back, if we can imagine such a thing, to the days when geology was not—spoke, as might have been expected from an enthusiastic student, of certain of the lower forms of animal life. The address itself is exceedingly instructive and interesting, especially as approaching problems which lie midway between the fields of the naturalist and the physiologist. In it can be seen, however, the tendency to view things from the purely natural-history

side, whilst to us as students and practitioners of medicine the physiological aspect is most frequently presented. Hence the study of such an address as that of Professor Allman cannot fail to help us to give length and breadth to our views. Moreover, he has done us good service by placing before the comparatively untutored public views long familiar to us the initiated, but which could not be taught with the force which lies in an address from the presidential chair of the British Association. This process of familiarising the public mind with certain great truths which lie at the basis of prolonged study is invaluable, provided it be not carried too far. And this we fear Professor Allman has done in certain respects, and it is with the end in view of materially modifying certain doctrines laid down in the address, and which are liable to be misunderstood, or even to do more mischief by being accepted, that we venture to criticise some parts of the presidential utterances.

The subject taken up by the orator was that of Protoplasm—a term introduced only of recent years, and of whose properties as a substance, Beale, Huxley, Max Schultze, and Haeckel have been the prime exponents. It has been well designated by Huxley “the physical basis of life,” for, speaking purely from the scientific point of view, “where there is life there is protoplasm.” But when Professor Allman proceeds to enunciate the converse part of the proposition—viz., that “wherever there is protoplasm, there too is life,” we must join issue with him, even though sitting in the presidential chair of such an illustrious body. That this proposition is absolutely untrue, anyone who has studied with care the phenomena of living beings must know. For we may have protoplasm *living and active; resting and inactive, yet capable of resuming action; and dead, never again to become active.* To say that protoplasm means life is, if this be true, a statement false and misleading. Let us take an example familiar to many, easily demonstrable by and to all. Suppose with an ordinary microscope giving a power of about 300 we prepare a glass slide on which we place a drop of frog’s blood, carefully covered in such a way that, if necessary, it may be from time to time irrigated by the usual half per cent. salt solution. Place this on a warm stage, easily made of a piece of tin plate with a hole cut in the centre corresponding to that on the stage of the microscope, and a spirit lamp applied to one of the extremities, which must project beyond the stage. We examine the specimen, and we speedily detect certain bodies well known to us as white blood corpuscles, rounded and motionless; but as we watch they begin to throw out processes in various directions, movements evidently of the kind we call vital, and similar in all respects to those of the amœba. In the one case we have the protoplasm *resting*, in the other in the *active* state. This can be kept up for a certain time if the fluid in which the corpuscles float is kept at a proper temperature and specific gravity; but if the water becomes evaporated by overmuch heat, we speedily see the movements cease—the bodies become coarse and granular, no efforts will restore their activity—the protoplasm is *dead*. The experiment of sending an electric shock through the fluid causes each corpuscle to assume the spherical form, from which if the shock has been weak they may again emerge, but if the shock has been strong they are killed just as a man may be killed by a flash of lightning.

One of the fundamental doctrines of the modern school is that protoplasm is one and the same—that it is identical—in plants and animals. Assuming for the moment this to be true, let us apply the same kind of test to vegetable life which we have just applied to purely animal structures. Take a leaf of the now only too common pond-weed *Anacharis* (select a leaf not too green; for the abundance of chlorophyll in these is apt to obscure the

phenomena to be observed); place it under the microscope as before, and if the weather is cold we shall only see the well-marked cell divisions, the chlorophyll corpuscles, and it may be some almost transparent gelatinous-looking material, but no motion. By-and-by, if a lamp is used, the rays of heat are reflected as well as the rays of light (the same end may be attained sooner by the use of a warm stage). We observe little streamlets of this glairy matter stealing along in certain definite directions, made more notable by the chlorophyll granules carried in it. This is the so-called circulation of plants. The protoplasm has here passed from a state of *rest* into one of *activity*. But suppose we drop the sprig from which we take our leaf into boiling water for a moment before placing it under the microscope: we may wait till doomsday for any motion—the protoplasm is *dead*. These simple experiments, where we have recourse to nature and not to philosophy, most effectually demolish the proposition that “where protoplasm is, there too is life.” There may be protoplasm with no life, and even accepting the most advanced evolutionist’s theory, there may have been a time when there was life without protoplasm. We cannot suppose, from their point of view, protoplasm starting into immediate being; and if life be dependent on its existence, what of immediately pre-existing stages? The dilemma is just; protoplasm must have been suddenly developed, and life arisen or infused as a consequence (surely the act of a new creation), or both protoplasm and life must have been gradually developed. That is to say, that life must have existed in some sort whilst as yet protoplasm was not.

But we have still other objections to urge to certain of the sweeping enunciations of Professor Allman, and, to do so with effect, we would quote his eloquent description of the subject of his discourse: “It is a tangible and visible reality, which the chemist may analyse in his laboratory, the biologist scrutinise beneath his microscope and his dissecting needle. The chemical composition of protoplasm is very complex, and has not been exactly determined. It may, however, be stated that protoplasm is essentially a combination of albuminoid bodies, and that its principal elements are, therefore, oxygen, carbon, hydrogen, and nitrogen. In its typical state it presents the condition of a semi-fluid substance—a tenacious, glairy liquid, with a consistence somewhat like that of the white of an unboiled egg. While we watch it beneath the microscope movements are set up in it; waves traverse its surface, or it may be seen to flow away in streams, either broad and attaining but a slight distance from the main mass, or else stretching away far from their source, as narrow liquid threads, which may continue simple, or may divide into branches, each following its own independent course; or the streams may flow one into the other, as streamlets would flow into rivulets, and rivulets into rivers, and this not only where gravity would carry them, but in a direction diametrically opposed to gravitation; now we see it spreading itself out on all sides into a thin liquid stratum, and again drawing itself together within the narrow limits which had at first confined it, and all this without any obvious impulse from without which would send the ripples over its surface or set the streams flowing from its margin. Though it is certain that all these phenomena are in response to some stimulus exerted on it by the outer world, they are such as we never meet with in a simply physical fluid—they are spontaneous movements resulting from its proper irritability, from its essential constitution as living matter. Examine it closer—bring to bear on it the highest powers of your microscope—you will probably find disseminated through it countless multitudes of exceedingly minute granules; but you may also find it abso-

lutely homogeneous, and, whether containing granules or not, it is certain that you will find nothing to which the term ‘organisation’ can be applied. You have before you a glairy, tenacious fluid, which, if not absolutely homogeneous, is yet totally destitute of structure. And yet no one who contemplates this spontaneously moving matter can deny that it is alive. Liquid as it is, it is a living liquid; organless and structureless as it is, it manifests the essential phenomena of life. The picture which I have thus endeavoured to trace for you in a few leading outlines is that of protoplasm in its most generalised aspect.” There is but one substance which exactly answers this description—the somewhat mythical Bathybius, the existence of which is far from certain, for, be it noted, that as regards the essential characteristics of protoplasm, we know of one only, that is, *irritability*. From what Professor Allman says himself, it is plain that chemical characteristics are useless; and we do not know that Professor Huxley has ever seen any portion of living Bathybius. The only fairly unexceptionable examples of simple undifferentiated protoplasm are to be found in Haeckel’s group Monera, illustrations of which are to be found both in salt and fresh water, for it is worthy of remark that this material can only live when surrounded by fluid. But we repeat, this is the only living example of pure and simple protoplasm with which we are acquainted.

For, in the Professor’s words, take another step, and “we pass to a stage a little higher in the development of protoplasmic beings. Widely distributed in the fresh and salt waters of Britain, and probably of almost all parts of the world, are small particles of protoplasm closely resembling the Protamoeba just described. Like it, they have no definite shape, and are perpetually changing their form, throwing out and drawing in thick lobes and finger-like pseudopodia, in which their body seems to flow away over the field of the microscope. They are no longer, however, the homogeneous particle of protoplasm which forms the body of Protamoeba. Towards the centre a small globular mass of firmer protoplasm has become differentiated off from the remainder, and forms what is known as a nucleus, while the protoplasm forming the extreme outer boundary differs slightly from the rest, being more transparent, destitute of granules, and apparently somewhat firmer than the interior. We may also notice that at one spot a clear spherical space has made its appearance, but that while we watch it has suddenly contracted and vanished, and after a few seconds has begun to dilate so as again to come into view, once more to disappear, then again to return, and all this in regular rhythmical sequence. This little rhythmically pulsating cavity is called the ‘contractile vacuole.’ It is of very frequent occurrence among those beings which lie low down in the scale of life. We have now before us a being which has arrested the attention of naturalists almost from the commencement of microscopical observation. It is the famous Amœba, for which ponds and pools and gutters on the house-roof have for the last 200 years been ransacked by the microscopist, who has many a time stood in amazement at the undefinable form and protean changes of this particle of living matter.”

In this passage we would particularly draw the reader’s attention to the following words:—“Towards the centre a small globular mass of firmer protoplasm has become differentiated off from the remainder, and forms what is known as a nucleus.” Now, we would put it fairly to anyone, have we a right to call these two substances by the same name? Can we call them both Protoplasm? When a substance becomes altered chemically and physically, can you any longer call it by the same name as before? A substance cannot be one and yet two. Why should we call a nucleus which is harder and denser, possesses different refractile

properties—does not yield the same chemical reactions with acetic acid, for instance—by the same name as the soft, flowing living matter of life? True, they may not differ greatly, but it is no true science which calls things essentially different by names which imply identical substances, for the sake of a striking and sweeping generalisation. Where differentiation has taken place there must be a difference, and where difference exists there cannot be unity. In point of fact, the appearance of a nucleus seems to us the first tendency towards permanence in many instances, so highly manifested in the cellulose coats of vegetable cells, or in the still more wonderful flinty and calcareous coats of diatoms and foraminifera. There is much more we could say on these various points, but we must meantime leave them, to turn to another part of Professor Allman's address.

Thus, when we read that "all recent research has been bringing out in a more and more decisive manner the fact that there is no dualism in life—that *the life of the animal and the life of the plant are, like their protoplasm, in all essential points identical*," we have surely an example of that tendency to generalisation which defeats its own ends. It sounds remarkably fine; but examine it closely, and it comes to nothing. If by life we merely mean *nutrition, growth, and reproduction*, the statement is perfectly true: both plants and animals possess that, and the proposition has never been disputed; but look beneath the surface, and we immediately detect the essential differences. Do we look at nutrition, what do we see? Let us in turn try a generalisation. On the one hand, a set of beings existing on substances of what are commonly called an inorganic kind—on which alone it is totally impossible for the other group to exist. Can we call this identity? Do we look at function, is there no difference between the general tendency to chemical synthesis in plants, and the equally uniform tendency to destructive analysis as the outcome of animal life? But we are still more staggered when we read, further on, that "the respiration of living beings is identical, whether manifested in the plant or in the animal. It is essentially a destructive phenomenon, as much so as the burning of a piece of charcoal, and, like it, is characterised by the disappearance of oxygen and the formation of carbonic acid. One of the most valuable results of the recent careful application of the experimental methods of research to the life phenomena of plants is thus the complete demolition of the supposed antagonism between respiration in plants and that in animals." Surely, we have here a play upon words, could the President of the British Association be guilty of such a thing! By respiration is commonly understood the total gaseous interchange between a living being and the external air. Accepting this view as true, it is impossible to accept Professor Allman's dictum as other than a joke. But if he is determined to limit the term to the absorption of oxygen and the formation of carbonic acid, he may have right on his side. If this were so, he had better give a series of definitions, more or less fanciful, as to the meaning he applies to words, before addressing a general audience.

With much to admire, much to instruct, and much likely to do good, we cannot help pointing out this address as affording one of the most flagrant instances of generalisation on insufficient data we ever encountered. O'Ken's Physio-Philosophy was a romance: this is evidently meant in real earnest: yet both have much in common. One swallow does not make a summer, and isolated facts form no sound basis for theory, or even for hypothesis. Yet Professor Allman is not satisfied. He has destroyed all belief between any weed we pull up and ourselves,—“there is no dualism in life.” Now he would draw the line at “thought”: we wish any gentleman joy who undertakes in all seriousness the duties of “boundary commissioner.”

ENTERIC FEVER IN INDIA.

WE learn from the *Indian Medical Gazette* that the Army Sanitary Commission have lately had under consideration Surgeon-General C. A. Gordon's "Report on Typhoid or Enteric Fever in relation to British Troops in the Madras Command," upon which we commented in December last.^(a) The existence—or, at least, the frequent existence—of true enteric fever in India has been, and still is, a disputed question. In 1870 Dr. Bryden drew public attention to its prevalence among the European troops in India, and declared that the disease had existed formerly, its non-appearance in official reports being due to faulty diagnosis, or to the fact that there had been no separate heading for the affection in the blank forms issued to the army medical officers; and he justified his belief in the existence of the malady by a detailed report of cases. He in succeeding reports gave further evidence of its existence, and stated also that cases had been observed in the Native Army and amongst prisoners. Since 1871 the fever has been regularly recognised in the nosological returns relating to the British troops in India; and a report by Surgeon-General J. Kerr-Innes on the prevalence and causation of typhoid fever among European troops in the Bengal Command in 1876 has been issued, and was considered by the Army Sanitary Commission together with Surgeon-General C. A. Gordon's report. In consequence of Dr. Bryden's reports, some of the army medical officers in India, as we before noted, acknowledged that the disease was formerly ignored, being buried in the group "remittent and continued fevers"; while others admitted the prevalence of a disease having the usually described symptoms and lesions of typhoid, but asserted that it is not specific, but due to climatic causes; and others, again, hold that the so-called typhoid fever is nothing new, and is only a compromise between the remittent and continued forms of malarial fever.

The memorandum issued by the Sanitary Commission discusses the whole question. The Commission came to the conclusion, on scrutinising existing statistics, that typhoid fever was not clearly tabulated as a cause of mortality among British troops in India before the year 1861. During the sixteen years ending 1845 the strength of the European Army in India aggregated 213,192, and the deaths from fever amounted to 2827. The majority of these deaths were registered under remittent fever, and the rest under common continued fever, typhus, typhoid, and ephemeral; but the number under each heading is not specified. For the ten years 1847-56 the strength of the troops aggregated 245,111. The deaths from fever amounted to 1586, of which 400 were registered under remittent fever, 1151 under common continued fever, 28 under ague, 7 under typhus, and none under typhoid. For the eleven years 1860-70 the reports of the Army Medical Department give an aggregate strength of 659,621, and the total of deaths from fever amounted to 2135. Of these, 795 were registered under remittent fever, 672 under continued fever, 382 under intermittent, 29 under typhus, and 259 under typhoid. The deaths attributed to typhoid each year, from 1861 onwards, were 12, 11, 15, 15, 16, 15, 19, 47, 44, and 65. These statistics show that the officers of the Army Medical Department had most distinctly recognised the existence of typhoid before Dr. Bryden drew attention to the matter. The Commission further bring forward Dr. Bryden's statistics for the years 1871-75, which deal with an aggregate of 292,162, with a total of fever deaths of 823 only. Of these the deaths attributed to *enteric fever* amounted to 446, or *more than half of all the deaths from fever*.

These statistics are very remarkable, and out of them a very important question inevitably arises. Is this extraor-

(a) Vide *Medical Times and Gazette*, December 14, 1878.

dinary change in fever-statistics of the death-register due to an altered nomenclature, to a greater carefulness and precision in diagnosis, or to the greatly increased frequency, if not the entirely new appearance, of enteric fever in India? It will be remembered that Surgeon-General Gordon impugns the accuracy of the diagnosis. After an examination of reports of 175 cases returned under the heading of typhoid fever, he comes to the conclusion that "only seven approximate to the standard of typhoid fever according to British authors, while in not one instance has the disease been traced to pythogenic causes"; and he insists that old fevers are being recorded under a new name. We felt compelled to say that his report seemed to us not very satisfactory, and we pointed to the vagueness and the meagreness of the records of the cases upon which he based his conclusions. The Commission also question the grounds of his conclusions. They think that the diagnosis of the medical officer treating and registering a case ought to be given considerable weight, even though the record in the "case-book" may be imperfect; and they observe, as we in effect did, that "if precise or typical standard symptoms are arrogated, many cases, even in England, will be found to fail to furnish them"; and they add, "if we assume that this fever is always connected with such a cause as sewers, we must grant that, as there are no sewers at Indian stations, there can be no typhoid from them." They come to the general conclusion, as we did, that Surgeon-General Gordon has not proved that enteric fever has not existed, and does not exist, among the British troops in Madras.

Surgeon-General Innes' inquiry as to the circumstances and causes of the cases of enteric fever which occurred in the Bengal Command in 1876, deals with the influence of age and length of residence in India, and the result is stated thus:—

<i>Typhoid Fever.</i>	<i>Cases.</i>	<i>Deaths.</i>
Under twenty-four years of age	8,708	116
Above twenty-four years of age	27,942	53
Two years' service and under	8,857	112
Above two years' service	27,793	57

These figures confirm remarkably Dr. Bryden's conclusion to which we alluded, that "among young soldiers, twenty-four years of age and under, landed in India, one in about 185 of them must die of enteric fever in the first two years of service. Surgeon-General Innes comes to the conclusion that the enteric fever of India presents the same phenomena during life and the same post-mortem appearances as in colder climates. He holds that the disease is an allied variety of its European congener, and urges that it is vain to look for an identical etiology; and the Commission agree with him, and point to temperature and malaria as probably exerting a modifying causative influence.

The question—and it is, regarded from the point of view of treatment as well as of prevention, a very important one—is, what is this fatal fever, with enteric complication, which is killing so many of our soldiers in India? And the work to be done is to discover its cause or causes. The Commission formulate, as the result of their consideration, some very obvious conclusions, which, however, if attended to, will be of valuable service whether the fever in question be true enteric fever or not. We will briefly state some of them.

1. That the surest way to arrest the mortality caused by enteric fever in India would be, were it practicable, to land soldiers in India after the twenty-fourth year of their age.
2. That, so far as can be learned, the filth-causes, which are so commonly observed in England when enteric fever cases present themselves, are not so prominent at Indian stations as to account for the frequency and fatality of this fever; but they nevertheless exist in bazaars and towns frequented by the troops, and it may be safely stated

that there is risk, especially to new arrivals, in a hot climate wherever there are odours proceeding from filth or decaying organic matters. 3. The malarial character presented by fevers which prove fatal from enteric complications point to local malaria of stations, and probably from under the barracks themselves, as probable local causes needing removal. 4. They point to the unwholesome conditions of stables and of barrack-room floors and adjacent subsoil drainage, as states that should be remedied without loss of time. 5. They say that greater care appears necessary in protecting drinking-water from pollution, and point out that the occurrence of enteric fever cases after the use of milk procured from very suspicious sources ought to direct attention to the sources of the milk-supply of stations. The Commission also repeat the often-made recommendation, that young soldiers be sent to hill climates as soon as they arrive in India; and they very rightly insist on the importance of fuller, more minute and careful, records of all cases of fever, so that cases which at the commencement presented malarial features, but later on assumed the enteric characters, may be compared, for purposes of differentiation, with cases that from beginning to end have a malarial type. It is evident enough that if the controversy on the subject is ever to be settled, medical officers must justify their diagnosis by faithful, exact, and detailed reports, giving in each case the history, the surroundings, all the symptoms and signs—including the temperatures—from day to day, and in fatal cases the post-mortem appearances.

DELIRIUM TREMENS.

THE *Centralblatt Med. Wiss.*, No. 25, 1879, contains an interesting *resumé* of observations on delirium tremens made on a large scale in the hospitals of Dantzic and Königsberg by Dr. P. Näcke, of Dresden. He finds that this affection is infinitely more common among brandy (*Schnaps*) than among wine and beer drinkers; hence its prevalence in Russia and America. The most dangerous spirit is that distilled from potatoes, probably because it contains most amylic alcohol in the form of fusel oil. Persons who habitually drink several kinds of spirits seem more liable to be attacked than those who restrict themselves to one sort only. In a very large number of cases the attack is determined by a severe fit of intoxication or an epileptic seizure. The influences of race, climate, social relations, etc., are difficult to state accurately. Women suffer less often than men: among the latter, those who are much exposed to weather, and have much outdoor work, or else those whose occupation brings them much into contact with spirits, are most often attacked. The period when delirium tremens is most frequent is from thirty to fifty, the largest number of cases occurring between thirty-five and forty. The youngest patient Dr. Näcke met with was eighteen years old. The most favourable season (for North Germany) is late autumn, and next to that the summer time.

Dr. Näcke finds that 5 per cent. of the cases (at any rate, at Königsberg) are only abortive forms, *delirium tremens incipiens*, which may be regarded as the disease limited to its initial stage. This form is the rule with women. He also describes a *delirium tremens chronicum*, lasting weeks or months, and consisting of a series of abortive outbreaks, with more or less well-marked intervals, and succeeding a decided attack of the ordinary disease.

Delirium tremens has a premonitory stage of two to four days. Increased perspiration and thirst are often observed in the course of the attack. The gastric symptoms are very important in forming a prognosis.

In one-third of his cases Dr. Näcke observed slight feverishness, not exceeding 38·8° Cent. (101·8° Fahr.). A tempera-

ture higher than the latter points to internal inflammation, especially of pneumonic character. The ordinary fever only occurs in the evening.

Albuminuria occurred in 82 per cent. of the cases, kidney and heart diseases being excluded, and the amount of albumen ranged from minute traces up to enormous quantities. This albuminuria ordinarily disappeared with recovery from the delirium. In one-fourth of the cases it was accompanied with fever, and the two rose simultaneously, but the fever was not always proportioned to the intensity of the delirium.

Some chemical analyses seem to prove that the excretion of phosphorus is diminished at the commencement of the delirium, probably from impaired tissue-change in the great nervous centres. The hallucinations of delirium tremens are all perversions of external sensations, generally of those received through the eye and ear. They are all characterised by depression. Dr. Näcke only noticed illusions connected with animals in one-third of a very large number of cases, and they were not restricted to small animals, but referred also to large ones. In any case the animals are always supposed to be alive and active. All the symptoms usually get worse at night. They do not nearly always disappear completely after the first good sleep, but crop up in different forms for some time longer.

The mortality varies at different times even in the same locality. Dr. Näcke found that, of 860 cases at Königsberg, 24.3 per cent. died. The number of complications also varies very much. The first attack is always the most dangerous. In fatal cases, Näcke, like others before him, failed to find any characteristic morbid changes. The best treatment seems to consist in narcotics given from the first in moderate doses. Three to five grammes of chloral in two doses generally were found to induce sufficient sleep, but the dose required to be pretty frequently repeated later on. Mechanical restraints should be avoided if possible, especially as they give rise to many illusions.

THE WEEK.

TOPICS OF THE DAY.

THE annual report of the Commissioners in Lunacy was made public last week, and contains some observations on the report of the Select Committee of the House of Commons which was appointed to inquire into the operation of the lunacy laws. The present report agrees with the opinion of the Select Committee that the lunacy laws should be consolidated, and adds—"We are not disposed to advocate any radical changes in the existing law regarding the care and treatment of the insane, and in particular, so far as our present experience extends, we are quite satisfied that the present system of certification, both of private and pauper lunatics, and of visitation of the asylums, hospitals, licensed and unlicensed houses, where they are received, affords, in practice, ample safeguards as well against the admission of persons of sound mind, as for the discharge of insane patients without undue detention. At the same time, we are far from thinking that no improvements could be made in the existing regulations. On the contrary, our daily experience of the working of the Acts has induced us to note many points where amendment would be useful. The present occasion does not appear suitable for stating *seriatim* all these points. This could only be done on the preparation of Bills for consolidation and amendment, and, indeed, very many minor difficulties which have from time to time arisen on the construction of the Acts would disappear on re-drafting the faulty clauses, and further experience may, of course, show the desirability of other improvements." The report goes on to specify a few of the modifications of the present system which it is recommended should be

adopted as regards the reception of patients under order, and certificates; and the Commissioners express a strong belief that, in spite of any evidence to the contrary which may have been brought before the Select Committee, no real grievance exists as to the detention of patients' letters under the present system, which requires all those addressed to them, to the visitors, and to committees of hospitals, to be forwarded unopened, the rest to be exhibited to the officials on their next visit.

The following is an illustration of one of those moot points of law in which common sense is entirely ignored, for which our country is so famous. The overseers and guardians of the poor of the parish of St. Olave's, Bermondsey, are at the present time placed in a very curious dilemma by the action of the Local Government Board. It appears that it has from time immemorial been customary for the overseers and guardians of the poor of the various parishes in the metropolis which skirt the river Thames, to pay for the interment of bodies found either floating in the river off or on the foreshore of their respective parishes, when such bodies remain unclaimed by friends after the coroner's inquest. Quite recently, however, the Local Government Board have disallowed a sum of £7 16s. 3d., charged by the overseers and guardians of the poor for the parish of St. John, Horselydown, and a somewhat larger amount to the overseers and guardians of the parish of Rotherhithe, for the burial of bodies found as above described, on the ground that the "Thames being the sea, such burials legally are not a charge upon the poor-rates, but on the county rate." The consequence is, that until the question is settled between the Local Government Board and the County Committee, the overseers will refuse to incur any expense for such burials, and the bodies will have to remain in the parish mortuaries uninterred until the point is settled. But what if the medical officer of health for the district intervened?

The City and Guilds Institute having granted £400 per annum for purposes of technical education at University College, London, have resolved that the grant be appropriated in maintaining the Chair of Chemical Technology, and that of Engineering and Mechanical Technology. The Professor of Chemical Technology, Dr. Charles Graham, has announced "Technical Education" as the subject of his public lecture at the College on October 1 next.

At the County Petty Session held last week at Long Ashton, near Bristol, Elizabeth Dyer, the woman connected with the recent case of baby-farming, was charged with having committed offences under the Act for the Better Protection of Infants' Life, which provides that it shall not be lawful for any person to retain for hire or reward more than one infant, or in the case of twins, more than two infants, for the purpose of maintaining them apart from their parents for a longer period than twenty-four hours, except in a house which has been duly registered for the purpose. The prisoner, who has not entirely recovered from her attempt to commit suicide, pleaded guilty, and said she was ignorant of the provisions of the Act. The Chairman expressed an opinion that she had evidently treated the children with gross neglect; and the Bench inflicted the highest penalty, six months' imprisonment with hard labour.

At the recent Middlesex Sessions, a Russian Pole, who, according to the indictment, had somehow succeeded to the not un-English name of Barnard Freeman, was found guilty of unlawfully pretending to be, and practising as, a doctor of medicine. There were three counts in the indictment; and the prisoner, whose only defence was that the money he had received was given to him to buy herbs, as he knew their properties and qualities from having been employed in a doctor's shop abroad, was informed by the Assistant Judge

that he had been guilty of a very grave offence. He would be imprisoned and kept to hard labour for six months on the first count, six months on the second, and three months on the third, making fifteen months in all. If he returned to these practices he would, the Judge added, certainly receive a much severer sentence.

The Medical Officer of Health for Chatham, Dr. J. B. Jardine, has lost no time in contradicting a statement which has appeared in several papers, to the effect that typhus fever and dysentery are, at the present time, raging to an alarming extent in the Military Hospital at Fort Pitt, Chatham, and that the deaths average seven per week. Both diseases, Dr. Jardine states, are at this time unknown in the district, and the health of the troops is as good as has ever been known. Since the month of June last there have only been four deaths in Fort Pitt Hospital, one from consumption, one from heart disease, and two from pneumonia. The circulation of the original statement is attributed to want of proper care on the part of a local journal, since not the slightest foundation existed for so damaging a report.

It is announced that the International Congress of Meteorology intend holding a special conference at the Deutsche Seewarte, Hamburg, on October 1 next, to consider the scheme proposed by Count Wilezek and Lieutenant Weyprecht for the establishment of observing stations within the circumpolar regions. The stations proposed are the north coasts of Spitzbergen and Novaya Zemlia, the North Cape, the mouth of the Lena, Point Barrow, and the east and west coasts of Greenland as far north as possible. It is also stated that the Italian Government is about to construct a large observatory on Mount Etna for the purpose of recording meteorological observations; this building, when finished, will be the second loftiest observatory in the world, the United States' signal station at Pike's Peak, in Colorado, at an elevation of 14,336 feet, being the loftiest station, as it is the loftiest inhabited building of any kind in the world.

At the Guildhall Police-court, last week, the inspectors of the City Meat-market brought for the inspection of the magistrate about 1800 lbs. of beef unfit for human food. It consisted of the carcasses of two cows which had died from lightning or the recent floods. The flesh was inflamed, some of it putrid, and the whole entirely unfit for human food. The inspectors said they knew where it came from, and would report the matter to the Commissioners of Sewers. Sir Thomas Owden ordered the meat to be destroyed.

THE PUBLIC HEALTH.

THE Registrar-General's return for the week ending Saturday, August 30, shows that the public health continues to be generally satisfactory, though the death-rate has risen somewhat. During last week 5167 births and 3126 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 19 deaths annually to every 1000 persons living. The annual death-rate was 18 per 1000 in Edinburgh, 17 in Glasgow, and 21 in Dublin; small-pox caused only one death in Dublin. The annual rates of mortality per 1000 in the twenty English towns, ranged in order from the lowest, were:—Portsmouth, 11; Wolverhampton, 13; Brighton, 13; Bradford, 14; Oldham, 15; Norwich, 17; Sunderland, Hull, Nottingham, and Bristol, each 17; Birmingham, 18; Sheffield, 18; Salford, 19; Leicester, Newcastle-upon-Tyne, and London, 20; Liverpool and Plymouth, 22; and the highest rate 23, in Manchester and in Leeds. The deaths referred to diarrhoea in the twenty towns rose further to 343 last week; in the corresponding weeks of the three years 1876-77-78 the fatal cases were 614, 514, and 512 respectively.

THE HEALTH OF LIVERPOOL.

THE health report of a large town like Liverpool will always be received with some interest, and Dr. J. Stopford Taylor, the Medical Officer of Health for the Port and Borough, furnishes so many interesting returns and statistics relating to the second largest town in England that his annual reports are always useful for reference. In dealing with the record of the year 1878 he is compelled to chronicle an increased rate of mortality, chiefly due to the prevalence of measles and scarlatina, and the great extremes of temperature in the summer and winter quarters. "In a sensitive population like ours," Dr. Taylor says, "any change of temperature has a marked effect upon the death-rate, and though a desire is frequently expressed for a return of the old-fashioned seasons when the summers were hot and the winters cold, yet, whatever may have been the effect in former times, there is no doubt that at the present day what is called 'seasonable weather' is death to many; the high temperature of summer means an increased death-rate from diarrhoea, and the cold of winter increases the mortality from pulmonary diseases." Nevertheless, it is a matter for grave consideration when we find that the density of population in Liverpool is greater than in any of the large towns of the United Kingdom, the returns showing—London 47.5, Manchester 84.0, and Liverpool 102.2 persons per acre. When these figures are considered, it can scarcely be wondered at that the rate of mortality, which in London during 1878 was 23.4 per 1000 of the population, should have been returned in Liverpool as 29.3 per 1000.

THE ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.

FROM the annual report of the Royal Edinburgh Hospital for Sick Children for the past year, it would seem that this important charity is extending its sphere of usefulness, since the total number of patients treated during the period was 860 in excess of those attended to during the previous twelve months. Unfortunately, the same complaint of diminished support has to be recorded again, attributed to the remarkable depression in trade, which has been felt over the whole of the kingdom. Nevertheless, the directors have boldly resolved to try the system of boarding-out some of their convalescents in some convenient and salubrious locality not far from Edinburgh, and they have chosen Corstorphine as the scene of their first experiment. The amount available from their present convalescent fund will enable them to commence operations, but they look for increased subscriptions to justify them in efficiently carrying out this most important method of restoring health to their small patients. During the past year typhoid fever unfortunately broke out in the institution, and the house-surgeon and several of the nurses and patients resident in the building were attacked; the outbreak was eventually found to have arisen from a faulty system of drainage, which it is now hoped has been remedied. Altogether there were forty-eight cases of this disease, but only three of them proved fatal.

THE HALF-YEARLY MEDICAL REGISTER.

THE Medical Register for the half-year ending June 30, 1879, which has just been published, contains, besides the register of the 384 additions that have been made to the Medical Register during that period, several very interesting tables showing the several registered single qualifications, and combinations of multiple qualifications. Of the 384 persons who registered in the first half of this year, 160, or 41.7 per cent., registered single qualifications, and 224, or 58.3 per cent., multiple qualifications. Of those who registered in England, 130, or 48.7 per cent. of the total, registered single qualifications, and in Ireland 23, or 35.9 of

the total, but in Scotland only 7, or 13·2 of the total. Of the single qualifications registered, that of the Royal College of Surgeons of England stands highest in point of numbers, as might be expected: 70 persons registered this qualification separately. Next comes the qualification of the Society of Apothecaries of London, 39 persons having registered with that alone. Of the grand total, 55 persons, or 14·3 per cent., registered with qualifications in medicine only; 105, or 27·3 per cent., in surgery; 221, or 27·5 per cent., in medicine and surgery; and 3, or 0·8 per cent., in medicine and midwifery. Table (H) is a very interesting one, as showing the number and percentage of persons registered with one, two, or more qualifications in the Medical Register for 1879. Of the total of 22,564 persons, 19·33 per cent. have only one qualification, 57·04 have two qualifications, 19·35 have three, 3·59 have four, 0·63 have five, 0·05 have six, and 2 persons, or 0·01, have seven qualifications. Up to January 5, 1860, 312 persons, or 1·9 per cent., of the 16,490 registrations were of persons registered as "in practice before 1815."

THE HEALTH OF LONDON.

IN London 2502 births and 1391 deaths were registered in the week ending Saturday, August 30. Allowing for the increase of population, the births exceeded by 115, while the deaths were 58 below the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which had been equal to 19·4 and 19·1 per 1000 in the two preceding weeks, rose last week to 20·0. During the past nine weeks of the current quarter the death-rate has averaged but 18·3 per 1000, against 23·4, 20·0, and 23·6 in the corresponding periods of the three years 1876-77-78. To the seven principal diseases of the zymotic class 388 deaths were referred, against numbers steadily increasing from 194 to 351 in the five preceding weeks. The 388 deaths exceeded by 10 the corrected average number from the same diseases in the corresponding weeks of the last ten years, and equalled an annual rate of 5·6 per 1000; whereas the death-rate from the same seven diseases in the nineteen provincial towns did not average more than 3·7 per 1000. The deaths referred to diarrhoea, which had risen in the five preceding weeks from 25 to 174, further increased last week to 209, and exceeded the corrected average for the corresponding week of the last ten years by 11; in the corresponding week of the last three years the recorded fatal cases of diarrhoea were 134, 154, and 148 respectively; 165 of the 209 fatal cases which took place last week were of infants under one year of age. The annual death-rate from diarrhoea was equal to 3·0 per 1000 in London, while it did not average more than 1·9 in the aggregate of the nineteen large provincial towns. The fatal cases of small-pox, which had been only 4 in each of the two preceding weeks, rose to 7 last week. The deaths from diseases of the lungs, which had been 181 and 165 in the two previous weeks, declined to 149, and six above the average. Nine cases of suicide were registered, the corrected average being 5. The duration of registered sunshine during the week at the Royal Observatory, Greenwich, was 34·4 hours, the sun being above the horizon during 96·8 hours.

THE AMERICAN NATIONAL BOARD OF HEALTH.

IN March last the United States Congress passed an Act for the organisation of a National Board of Health to look after all matters relating to the public health. The first section of the Act provides for the establishment of a Board of Health, to consist of eleven members—seven to be appointed by the President, with the advice of the Senate, and to receive two dollars a day, with reasonable expenses, while

actually engaged in the duties of the office; the remaining four members, who receive no special pay, to consist of a medical officer of the Army, one of the Navy, and one of the Marine Hospital Service, and an officer of the Department of Justice. The second section determines the duties of the Board in matters affecting the public health, the obtaining of information, and advising the departments of the Government and the executives of the several States. And Sections 3 and 4 require that the Board, with the aid of the Academy of Science, which is to co-operate with it, shall report to Congress, at its next session, a full statement of its proceedings, and a plan for a national health organisation after consultation with the principal sanitary organisations and sanitarians of the several States. Special attention is to be given to the subject of quarantine, both maritime and inland. The sum of \$50,000 has been appropriated for the expenses of the Board and the carrying out the purposes of the Act. The Board is already fully at work, and issues weekly a *National Board of Health Bulletin*, which, in addition to mortality statistics, contains rules and regulations regarding the sanitary condition of ships, records of cases of yellow fever, extracts from sanitary inspectors' reports, State and local quarantine laws, and other useful information relating to the public health.

THE DEATH OF M. CHASSAIGNAC.

THIS surgeon, whose name is so well known in England, has just died at Versailles after a prolonged and painful illness, having, indeed, in consequence of his ill-health, retired from practice some ten years since. Born in 1805, and receiving his diploma in 1835, M. Chassaignac became a bold and skilful operator, and the inventor of many ingenious instruments and procedures. He was not elected into the Académie de Médecine until 1868. "In our opinion," the *Gazette Hebdomadaire* observes, "he has died without having attained, in spite of the great notoriety which he enjoyed, the situation which his talent, at once so positive and so inventive, deserved." His various improvements in practical surgery have almost all been effaced by the two great inventions which have played so large a part, the Linear Ecrasement and Surgical Drainage.

THE PHYSICIAN AND PHYSIOLOGIST IN THE TROAD.

WHEN Professor Virchow paid, some months ago, a visit to the scene of Dr. Schliemann's excavations in the Troad, he expected to enjoy a holiday from professional work; but he was very quickly undeceived on that point, and he has given to the world in his *Archiv* some account of his unexpected medical experiences. He had hardly been a day at Hissarlik before several sick workmen were brought to him for treatment; and the report that the new Effendi was a great and renowned *hakeem* spread rapidly. There is no medical man, nor even a quack, in the Troad; and consequently, sick and infirm people flocked in daily increasing numbers to Hissarlik from far and wide. There are no roads and no vehicles. So the people came on foot, or on horseback, or riding on asses; even women coming thus from a long distance. Very infirm people were brought in great baskets slung across a horse's back, sometimes one on each side by way of balance. The patients used to range themselves in a long row, opposite the wooden hut in which Virchow lodged, each waiting patiently until his or her turn came. The majority were Greeks, from the Greek towns and villages near the coast; but there were also Turks and Bulgarians, gipsies, Armenians, and even Persians. It is easy to understand that the difficulty of communication was not inconsiderable in this conglomerate of nationalities; and not unfrequently the services of more than two intermediary

interpreters were necessary to enable the physician to understand what the patient wished him to know, and to convey back his instructions. Most of the maladies were of the malarial fever type; for the Trojan plain, with its great swamps, is a choice abode of malaria. Professor Virchow declares that he found his patients quite willing to obey his instructions, even when they ran counter to their susceptibilities and usages. Medicine had to be fetched from the Dardanelles, and the supply was precarious. Fortunately, he had in a small medicine-chest of his own, and in the larger boxes of Dr. Schliemann, nearly everything he wanted. He found the people very grateful in their own simple way. They found he loved flowers; and every morning quantities of flowers used to be brought to his hut. For geological purposes he had had an excavation made in the old bed of a stream now dry, and by his directions the men dug until water rose. Dr. Schliemann writes to Virchow that the inhabitants "regard the excavation and spring with veneration, and have fenced it around with stones. The spring is called 'the doctor's well,' and magical virtue is ascribed to it. Everyone comes to draw water from it."

THE REGISTRAR-GENERALSHIP FOR IRELAND.

WE have much pleasure in announcing that his Grace the Duke of Marlborough, Lord Lieutenant of Ireland, has been pleased to appoint Dr. Thomas Wrigley Grimshaw to be Registrar-General for that part of the United Kingdom. The claims of the medical profession for this most important post have thus been recognised by the Government, and from the ranks of the profession no more suitable selection could have been made. Dr. Grimshaw possesses sterling ability and is a man of untiring energy. For many years he has laboured, through evil report and good report, to advance the highest interests of both preventive and curative medicine, and we anticipate the happiest results to the public weal from his administration as Registrar-General. The *Dublin Daily Express* thus speaks of the appointment which has been made:—"It is an office requiring not only a high order of capacity, but the special knowledge and training which only a medical man of experience can be expected to possess. Dr. Grimshaw is eminently qualified for the efficient discharge of its important duties, having for many years occupied a foremost rank in his profession, and having also made the laws of health and the sanitary condition of Dublin a subject of close and practical study. Those who heard or read his recent address at Cork could not fail to be impressed by the comprehensive grasp of the whole question and the thorough mastery of all its details which it showed, and if no other proof of his competency for the office had been given, we believe it would have been thought amply sufficient. We need not say, however, that, in connexion with the Dublin Sanitary Association, and as a practising physician attached to two of the principal hospitals in the city and an active promoter of the Hospital Sunday movement, he has afforded evidence of the special attention which he paid to sanitary matters, and of his assiduity and skill in the work of organisation. The salary of the office is £1000 a year."

THE STATUE OF PROFESSOR VON BAER.—The Dorpat Central Committee has just reported that the subscriptions received amount to the sum of 17,395 roubles, 15,278 of this amount having been subscribed in Russia and its provinces. In foreign countries 2117 roubles were subscribed, 1493 coming from Germany, 179 from Sweden, 176 from France, 106 from Great Britain, 74 from Belgium, 60 from Austria-Hungary, 20 from Turkey, and 7 from Italy. The subscription-list is to be finally closed at the end of the present year.—*St. Petersburg. Med. Woch.*, 204.

THE DISEASES AFFECTING EUROPEAN RESIDENTS IN JAPAN.

WE extract the following from a valuable paper on the maladies attacking Europeans residing in Japan, by Dr. Stuart Eldridge, one of the Surgeons of the General Hospital of Yokohama, Secretary of the Board of Health of Yokohama, in the "Medical Reports of the Imperial Maritime Customs, China":—

SCARLET FEVER.

If this disease ever exists in Japan, it has as yet made no appearance among foreign residents in anything approaching an epidemic form. Two cases are reported under this heading as having been admitted to hospital in the years 1868 and 1870. No death from this cause is noted in the mortuary record. The experience of the local practitioners includes but two other cases which were suspected to be scarlet fever, both occurring in the practice of the same physician, neither fatal, and both considered by the reporter as not beyond a doubt as to their character. Now, the diagnosis of mild, sporadic cases of scarlatina is confessedly difficult under any circumstances, while the disease is of so highly infectious a nature that it always tends to become epidemic, and rarely fails to do so; further, the disease, if not entirely unknown among the natives, is at least exceedingly rare, and is apparently but seldom met with in China. The cases above mentioned may have been scarlet fever, but it is by no means impossible that they may have been cases of any one of several other diseases known to occur here.

The first case noted in the hospital record was that of an American seaman recently arrived. Granting that this case was one of scarlet fever, it is not unlikely, in view of the portability and persistency of scarlatinal contagion, that the infection was brought from home in the man's shore clothing, and that he himself fell the first and only victim. Of the second case mentioned in the hospital books, that of one of the few natives admitted for disease, the stay in hospital was so short as to prove that the disease, whatever it was, was mild, while it is very improbable that of the few cases of natives admitted to the hospital one should be that of the only known occurrence of a generally epidemic disease.

But that we have so far escaped the ravages of scarlet fever affords no certain assurance of immunity in the future. A disease of the nature of that in question, depending upon a persistent, portable, and intense contagion, is almost certain to reach us sooner or later, while the rapid increase in the number of children in proportion to the adults of the foreign community is yearly rendering the circumstances more favourable for its propagation when once imported. If the theory of Dr. Carpenter be correct, and decomposing blood furnishes the origin or nidus of scarlatinal infection, the comparative rarity of collections of this form of garbage in China and Japan may be connected with the non-occurrence of this fever; or it may possibly be that existing influences of soil or climate are unfavourable to the development or propagation of the specific poison; but the relations of such conditions to the disease in question, if they exist, are so little understood that it will be the part of wisdom to treat any suspicious case with exceptional precautions against the propagation of the malady.

(Since the above was written, I am informed by Dr. E. Baelz, of the Imperial Medical College, Tokio, that during the past two years he has met with nine cases, unmistakably of scarlet fever, of which one proved fatal, all of the cases occurring in young Japanese between the ages of fifteen and twenty-five years.)

MALARIAL DISEASES.

The hospital records, up to 1875, present in all but 20 cases of malarial disease, 2, or 10 per cent., of which occurred in residents, and 18, or 90 per cent., in non-residents. The same records from 1875 to 1877 note 31 cases of malarial disease, including 14 of malarial cachexia. Of these cases of cachexia, 11 were received from a single man-of-war which had been cruising in highly malarial regions far beyond the limits of Japan. Of the 31 cases from 1875 to 1877, 5, or 16.1 per cent., were of residents, and 26, or 83.8 per cent., were of non-residents. The percentage of

admissions for malarial diseases during the entire ten years was 2.9 of all treated, while of the total number of cases of this character, residents furnished 13.7 per cent. On examining the tables it will be noticed that the increase in the number of admissions for malarial diseases, shown by the preceding figures, is largely due to the number received as suffering from malarial cachexia. Still, excluding all cases of the latter as the result of infection received outside of Yokohama, there has been during the three years just passed a positive though small increase in the number of admissions for the acuter forms of malarial poisoning.

Of the 51 cases admitted during the ten years but one was fatal. The cemetery books record but 4 cases of death by malarial diseases during seven years, or 0.8 per cent. of the total classified mortality during that period.

But neither the statistics of the hospital nor those of the cemetery can be considered as affording a true idea of the prevalence of malarial disease in Yokohama, further than that from the very small number of deaths ascribable to this cause, it may fairly be inferred that the severer forms of malarial disease are rare. This is true, and the fact explains the infrequency of resident admissions to hospital under this heading. The type of malarial disease in Yokohama is mild, generally yields readily to treatment, and so the sufferers but seldom enter hospital.

The medical practitioners of the settlement are unanimous in the opinion that malarial influences are manifested here in most irregular and often puzzling forms. Well-marked and typical cases of remittent and intermittent fevers are infrequent, while periodic neuralgias, dumb agues, and other marked forms of malarial poisoning, are common. Isolated cases of the severe congestive form of malarial disease undoubtedly occur, but rarely of so violent a character as to be properly classed as "malignant" or "pernicious." A few cases resembling the so-called typho-malarial fever of Woodward have also been met with, the malarial element of the disease being unmistakably indicated. A marked increase in the number of cases of malarial affections has been noticed in private practice since the year 1871, when improvements of sewage, drainage, etc., with consequent excavation of the soil, began to be extensively carried on in Yokohama. It is probable that the drainage and levelling of the settlement, while it has much diminished the frequency of typhoid fever, has increased the number of cases of malarial troubles. It is not surprising that this should be so, for in temperate climates the disturbance of the soil is well recognised as a factor in the production of malarial disease even more powerful than are swamps and low-lying lands when undisturbed. During the re-excavation of the canal, in the spring and summer of 1877, a marked increase in malarial disease was noticed in the neighbourhood of the works.

The manifestations of malarial poisoning in this locality are somewhat anomalous in respects other than the nature of the attack. All seasons seem almost equally favourable to their development, many cases occurring in the clear cold weather of mid-winter; while certain portions of the elevated and airy Bluff are as subject to malaria as is the level and low-lying settlement. The topography of these insalubrious portions of the Bluff may, perhaps, to some extent explain this fact, for it is easily conceivable that favourably situated slopes and flanking valleys, with no considerable shrubbery intervening, may serve to conduct the emanations of the saturated bottom lands from a lower to a higher level, under the influence of prevailing winds.

SYPHILIS.

This, one of the most frequent diseases in all seaport towns, seems to have become somewhat less common in Yokohama since the Government undertook the medical supervision of prostitution. In 1868 the percentage of cases admitted to hospital for syphilis was 24.4; in the latter part of that year the present system of inspection and control was inaugurated, and the ratio was slightly diminished in 1869, being 21.0 per cent. In 1870 and 1871, by which time the control system was in full operation, the proportion was reduced to 9.8 and 6.7 per cent. of all received. In 1872 the percentage of admissions for this cause rose to 15.8 per cent., dropped in 1873 to 6.9, and since the latter year has ranged between 11 and 12 per cent. of all admissions. It will thus be seen that there has been upon the whole a marked improvement since the establishment of intelligent medical

supervision of the native brothels, but that this improvement was greatest within the years immediately succeeding upon the inauguration of the new system. The increase in the admissions for syphilis after 1871 is easily explainable in accordance with the universal experience, that where governmental supervision of recognised and registered prostitutes is most rigid, secret and therefore far more dangerous prostitution increases steadily in proportion to the effectiveness of the control of the registered houses. Such secret prostitution is becoming more common in Yokohama year by year. It is carried on in connexion with sailors' taverns to a considerable extent, while one of the most travelled thoroughfares between the settlement and the Bluff is lined with unlicensed and uncontrolled brothels.

It is probable, however, that the bare statistics gave a somewhat exaggerated idea as to the amount of syphilitic disease actually acquired in Yokohama; for, during 1875, 1876, and 1877, in which period the cases have been noted with reference to the stage of the disease at which the patients were admitted, the percentage of inveterate (or tertiary) cases is 23.2 of the whole number admitted for this cause, while a considerable proportion of the cases entered as secondary were of the later manifestations of this so-called period, and therefore, as well as the inveterate cases, when occurring in non-residents, presumably the result of infection acquired months or years before entering the hospital, and elsewhere than in Yokohama.

There is a widely entertained notion that syphilis, as it exists in Japan, is of a peculiarly virulent and severe type. This is decidedly a mistake. It is, I think, generally acknowledged by the medical profession in Japan, that syphilis among the natives is of an exceptionally mild form, and that, considering the number of cases, the more severe and deeper lesions of the disease are rare. This comparative immunity from the graver effects of the venereal poison is somewhat paradoxically believed to be due, at least in part, to the long-continued general and unrestrained diffusion of the disease. It is as though the blood of the nation, either directly or by inheritance, has become more or less infected by the poison, and this, in compliance with a well-known law applying to most infectious diseases, if it does not prevent the contraction of new infection by the individual, at least modifies the effects of the contagion.

Similar observations have been made in other countries in which syphilis has been allowed to run riot, more especially in Portugal, where the comparative immunity of the natives was noticed as long ago as the Peninsular War.

But the fact that the disease is of a mild type in the natives by no means insures that it will be trifling when acquired from them by a foreigner; and it is undoubtedly and as a rule more severe in the comparatively pure-blooded European than in the already more or less syphilised native. Still, even among foreigners the disease is neither more severe nor less amenable to treatment than when occurring in Europe or America.

BERIBERI.

This disease, the "kakke" of the Japanese, though both common and fatal among the natives, has but very rarely attacked foreign residents. No cases are to be found in the records of either hospital or cemetery, and the two or three cases reported as having occurred in private practice appear to have been of the mildest form.

As kakke has recently been discussed by several competent writers, among others by Drs. Hoffman and Anderson of Tokio, and as an exhaustive article upon the subject will soon be published by an authority of long and extensive experience, I will simply place upon record in the briefest form my conviction that the disease in question is exactly identical with the beriberi of India and elsewhere, that it is due to a specific poison, probably allied to malaria, that this poison primarily affects the nervous centres, all other symptoms than those of nerve disturbance being dependent upon this impression on the nervous system, and that exposure, bad food, overwork, lack of iron in the system, etc., all of which have been held responsible for the disease, serve only as exciting, never as primary causes.

In these respects I have modified the opinions which I formerly held, wider experience and study having convinced me that no ordinary and generally known cause of disease will account for the phenomena of beriberi; but I claim no originality for my views, as they are identical with those of others of greater experience than myself.

FROM ABROAD.

ON THE PROLONGED ANTISEPTIC BATH.

In an article in the *Archives Générales* for July and August, Prof. Verneuil observes that this mode of treating wounds is not now much resorted to, and is suitable only for a small number of cases; but for them it is of such utility, and so superior to all other means of local treatment, that it deserves a very high place as a therapeutic agent, and he the more readily refers to it that surgeons of the present day, in their enthusiasm for new modes of dressing, seem to have forgotten its existence. Prolonged—or as at that time they were employed, permanent—local baths have been used since 1854 by Valette, Langenbeck, Zeis, and others, after amputations and for wounds of the extremities, and some excellent results have been obtained; and in 1856 Prof. Verneuil commenced his trials with them. In one case of a fracture of the forearm, the limb was retained in the bath uninterruptedly for twenty-eight days, and in many cases of wounds of the hand and forearm the bath was continued for from four to twelve days. This mode of treatment superseded that of continuous irrigation, which, so useful in contused wounds of those parts conveniently placed for its adoption, proves of little avail in those with which the water cannot come in direct contact. In the bath every part of every kind of wound is accessible. In later times, however, Prof. Verneuil has greatly modified this means. For the cumbrous apparatus formerly in use he has substituted ordinary vessels for the reception of the hand and arm, and instead of the permanent bath, which was most inconvenient in application, especially during the night, he now uses simply a bath prolonged for two or three hours only, and repeated two or three times a day. It was found also that this prolonged bath could not be conveniently applied for wounds of the lower extremities, and of late years it has been entirely confined in its application to those of the hand and arm.

The patient may take the bath in bed, either in the sitting position or with his shoulders propped up; or, if strong enough, he may sit in a chair. The water should be of a medium temperature, which may be left to the patient to regulate in such a manner that it feels to him neither too cold nor too warm. Of late years Prof. Verneuil has added disinfecting liquids to the bath, viz., solutions of either the chloride of soda of Labarraque, carbolic acid, or hydrate of chloral, and employing from 10 to 20 per cent. of the chloride, and from 1 to 2 per cent. of carbolic acid and of chloral—varying the doses of the antiseptic according to the effects desired to be produced and the duration of the immersion. Thus, with an infected wound, with gangrene, a more concentrated bath of short duration is employed, as also when the weakness of the patient prevents too prolonged or too frequent baths. Less strong doses are employed when the primary putridity is destroyed, and when the patient is able to continue the bath for four or five hours together. Prof. Verneuil habitually employs carbolic acid, but for those to whom its smell is repugnant he substitutes the hydrate of chloral. Labarraque's liquor is especially useful when gangrene is present, as it has singular power in aiding the elimination of eschars. But many persons can ill bear the smell of the chlorine, and the unpleasantness from this can be greatly diminished by covering the bath with thick cloths or closing it by a cover. The bath of carbolic acid shows the error of those who regard this substance as an irritant. Over and over again the hand and forearm have continued in a 1 per cent., or stronger, solution for two hours, and almost always the patients have declared that they felt considerable relief from it. In the interval of the baths, the limb, immobilised or not, according to the nature of the case, is conveniently placed on a support, and covered by a compress of muslin folded several times and wetted with the liquid of the bath. A layer of wadding, and over this some oiled silk, complete the dressing. Prolonged immersion gives to the wounds, and especially recent ones, a somewhat pale aspect, but this

appearance is of short duration, and in general, when the cleansing of the wound is over, the granulations have an excellent appearance, and assume a vermilion colour scarcely an hour after leaving the bath. The quantity of pus secreted is generally small, and it is especially remarkable for the absence of odour, which is also the case with the eschars. In one of the cases related there was suppuration of the whole hand, and gangrene of the index finger; and yet, although the patient lay in a very small room, when the limb was exposed not the slightest odour could be perceived beyond that of the carbolic acid. Whatever may be the sinuous dispositions of the wound, the pus and mortified tissues are so thoroughly disinfected, that neither injections into these cavities nor pressure for the expulsion of the pus are required. "I have only to quietly wait until the eschars are detached of their own accord. In a word, I apply here that calculated abstinence, that absence of all meddling with the parts, which I so earnestly recommend for all wounds in general." Nothing is easier than to keep in a state of the extremest cleanliness wounds which pass two or three hours in tepid water—it sufficing to let fall a streamlet of the water from a sponge on the injured parts and the orifices of any fistulous tracks, gently wiping the neighbouring uninjured parts. It is not possible to say beforehand how long these prolonged antiseptic baths ought to be continued. They must at least be used for a sufficient time to produce the complete cleansing of recent wounds, and the absolute and durable disinfection of old wounds. But so easy is the means in its application, and so great is the relief which it generally procures, that its use may be continued for a long period. Ordinarily, and that even in the most serious cases, the baths are not required after the fifteenth or twentieth day, when, if it be deemed desirable, the wadding bandages may be applied, as these enable the patient to take exercise more easily.

Prof. Verneuil relates several illustrative cases, and terminates his paper with the following conclusions:—

"The prolonged and repeated antiseptic bath is of great utility in a great number of surgical affections of the hand, forearm, and elbow. It prevents traumatic fever almost certainly in cases of recent accidental or operative wounds seated in healthy tissue, and in this respect rivals the classical continuous irrigation and the wadding dressing. It possesses the same preventive property in cases of operations practised in the midst of more or less old morbid centres (*foyers*) impregnated with purulent and putrid substances, and thus renders more innocent excisions and extirpations of bones, amputations in gangrene, drainage, counter-openings, etc. In this respect it is very superior to rival modes of dressing. Finally, it possesses still more than these the inestimable power of arresting acute or chronic septicæmia by so modifying recent or old pathological centres that the production or the penetration of the septic poison is prevented, or at least impeded. The preventive or curative action of the antiseptic bath on surgical fevers enables us to study with care and profit the qualities and actions of the poison concealed in wounds, and to dissipate some of the obscurity which still prevails in the doctrine of septicæmia."

AUSCULTATION IN UTERINE HÆMORRHAGE.—Professor Depaul, in a clinical lecture, observes that when hæmorrhage occurs during labour, it will generally be found to arise from partial detachment of the placenta, the cord being too short. "I remember," he said, "the case of a young woman whose delivery had gone on very well, when, as the head was approaching the vulva, two or three spoonfuls of blood suddenly appeared between her thighs. I immediately practised auscultation, and found the foetal heart beating irregularly. It was evident that the infant was suffering, and that it was dangerous to await the natural termination of the labour, which might last two or three hours longer. Dilatation was complete; and easily persuading the mother of the necessity of terminating the labour rapidly, I applied the forceps. Immediately after the child was extracted there followed five or six enormous clots, weighing about a couple of pounds. The child was born respiring with difficulty, but soon quite recovered. Never forget, then, whenever you meet with a flow of blood, to assure yourself by auscultation as to the state of the infant, and when dilatation has taken place, hasten to interfere whenever life seems in danger."—*Gaz. des Hop.*, August 26.

REVIEWS.

Clinical Lectures on Diseases of Bone. By C. MACNAMARA, Fel. Cal. Univ.; Surgeon to the Westminster Hospital; Surgeon-Major H.M. East Indian Medical Service; also of the Royal Westminster Ophthalmic Hospital. London: Macmillan and Co. 1878. Pp. 298.

TWELVE lectures delivered to the students of the Westminster Hospital compose this volume. Some of them have been already published in the *Lancet*, others in the *Indian Medical Gazette*; the remainder now appear for the first time.

Having looked very carefully into this little work, and having again and again gone back to it, we are bound to confess that we neither take it up nor put it down with satisfaction. We are disappointed that the descriptions of disease are neither truly clinical nor strictly systematic, and that general remarks on histology are so frequently introduced where we expected to find an account of symptoms and treatment, or the picture of a good illustrative case. We read on, because we feel sure that the author possesses considerable personal experience which he has digested and utilised to good account, and yet we constantly imagine ourselves listening to one of a course of surgical lectures in which the lecturer is telling us what he has found in the writing of others, and what his own ideas suggested by those writings (rather than by his own cases) are. We find theories, if we can call them so, propounded vaguely, and supported feebly, indefinitely, or not at all; and assertions which, if true, are important, and the facts upon which they are founded ought to be known, but which, if doubtful or unsupported, may be mischievous. Of what scientific value is such a statement as the following?—"If the entire number of days patients have lived after amputation for malignant disease of the bones were added together, the total number would amount to a smaller sum than if the patients had not been operated on." Has Mr. Macnamara made any investigations on this point, such as have been made by others with regard to the comparative duration of life in those who have, and those who have not, been operated upon for cancer of the breast; or is this statement merely a guess? There is nothing to tell us; he affords us no information. He recommends us to make a clear admission to the patient of our powerlessness, and then refuse to operate because we cannot promise a permanent cure; as if pain and other ills which are removed, at least for a time, with the primary disease were nothing. Surely cancer of the tongue, as well as malignant disease of the breast, teaches us to take a different course.

Some of the descriptions are meagre and sketchy—such, for instance, as "the repairs of fractures," the "non-union after fractures," and "tumours" and "malignant tumours of bone." It strikes us, too, that there is an incoherency in the subject-matter of many of the chapters, which makes us feel either that we are missing the author's points, or that he is lacking any set purpose in the arrangement of his subjects and the manner in which he deals with them. Why, for instance, is a case of lymphadenoma (Hodgkin's disease), with an encomium on Stepney Sick Asylum, introduced between the reports of two cases of tuberculous disease of the bones?

If, however, we abstract the histological digressions, the uncertain theories, and the unsubstantiated assertions, there is still in the descriptions of the author's own cases, and in his clinical remarks thereon, much to instruct and interest, and we are sure that had Mr. Macnamara confined himself to this side of his subject, he would have produced a more acceptable and a more useful book.

The work opens with a short chapter on a long subject, viz., "The Development and Anatomy of Bone." The remarks display, no doubt, an extensive and accurate knowledge, but do not exhibit a mastery over the way of condensing information with clearness, for the purposes of teaching. It is an outline, brief and rapid, and, we are obliged to confess, somewhat obscure also.

The second chapter relates to inflammation of the different parts of bone, "Osteo-myelitis (acute and chronic), Periostitis and Epiphysitis." Here we feel we ought to protest against an ambiguity of expression. The student reading these pages without any previous knowledge of osteo-myelitis will most likely go off with the idea that this disease and pyæmia are one

and the same. Two consecutive sentences run thus:—"Some ten years ago it was rather the exception than otherwise not to have osteo-myelitis among our hospital patients in Calcutta after amputations or compound fractures of the extremities. It is true that stricter attention having been paid to the sanitary condition of these institutions" [it is left to the reader to infer what institutions] "and in my own practice, after the introduction of the antiseptic system of dressing we lost fewer cases from pyæmia." A little further on, when describing the symptoms of acute osteo-myelitis, he suddenly breaks off thus:—"But remember you cannot depend either on the temperature chart, rigors, or any other symptom alone, as indicating the existence of pyæmia." (a) Next follows a discussion upon the difference between "septic poisoning" and "ordinary surgical fever." The conclusion which a student will naturally arrive at is, we think, this—that osteo-myelitis, pyæmia, septicæmia, and septic poisoning are one and the same thing, which it is necessary to distinguish from surgical fever. In other passages we read of "septic pyæmia" and "septicopyæmia," but no definition is given of these terms.

As an instance of the way in which a theory is advanced without any evidence to support it, we may quote the following:—"In pyæmia the whole of the blood in the body is charged with a deleterious agent, which, whether vital or chemical in its nature, is directly influenced by free oxygen, and meeting with an abundant supply of oxygen in the air-cells of the lungs, emboli are formed in the vessels, and necrosis of the pulmonary tissues, the so-called metastatic abscesses of septicopyæmia, result."

Occasionally the author dismisses a generally accepted view without giving any reason for so doing, or contravenes an opinion of the "authorities" with some such remark as "if such were the case, surely the matter would long ago have been set at rest by chemists."

In this same chapter will be found some very valuable remarks on Epiphysitis, understanding by "epiphysitis" inflammation of the epiphysal cartilage between the epiphysis and diaphysis of a bone, not of the epiphysis itself. The author suspects that not a few of the instances of so-called suppurative periostitis commence in inflammation at this line of ossification, and that this is the reason why we only meet with "acute periostitis" among children and young persons.

We were unprepared for the statement that acute periostitis, except when complicated with osteo-myelitis, is not likely to endanger a patient's life from pyæmia. We had always looked upon acute suppurative periostitis as a very grave disease, frequently only a manifestation of a general pyæmic condition, but as frequently itself causing a general pyæmia.

In Lecture III. the subject of Hypertrophy of Bone is introduced by a number of remarks irrelevant to the subject, and such as would have been *à propos* to a lecture on the conditions suitable and unsuitable for excision of joints. Under "Hyperostosis" we find little more than a few extracts from recently published reports of such cases which have been brought before the Medical and Chirurgical and other societies. The author, however, advances the theory—based, it would appear, on these reports—that at a certain stage of general hyperostosis "the affected bones undergo a process of softening, which, if it were continued, would lead to incurable osteo-malacia," but that as the morbid action which brings about the softening of the bone does not entirely destroy the bone-forming cells, new bone is produced in larger quantities than in health; and he draws the conclusion that the cause of general or widely disseminated hyperostosis is a sarcomatous diathesis. Immediately following the statement of this theory it is said that the outcome of chronic rheumatic arthritis is an *extensive hyperostosis of the bones entering into the construction of the various joints of the body*. It would seem, therefore, that, in the author's opinion, chronic rheumatic arthritis induces in its victim a "sarcomatous diathesis"—at least, this is the logical outcome of his statement.

He gives a picture of a case of chronic rheumatic arthritis drawn almost in the words of Dr. R. Adams' well-known description. One might almost fancy oneself reading a page from "A Treatise on Rheumatic Gout." It is only fair to Mr. Macnamara, however, to say that he acknowledges the source of his account.

(a) The italics are our own.

The only part of Lecture III. which warrants, to our thinking, the use of the term "clinical," is the latter part on acute diffuse sclerosis and chronic diffuse sclerosis of bone. For the rest it would be befitting a lecture in a course on surgery, but it is in no sense what we believe most teachers of surgery would consider clinical instruction.

The subjects dealt with in the most satisfactory manner are "Tuberculous Affections" and "Syphilitic Disease of Bone" and "Rickets." Although the reader may not agree with all the views expressed, especially with regard to the first of these, he will recognise in them the work of an experienced and carefully observant surgeon. While we cannot recommend the book to students, there is much in it which is worthy the attention of the practical surgeon.

Fragments of Science: a Series of Detached Essays, Addresses, and Reviews. By JOHN TYNDALL, F.R.S. Sixth Edition. Vols. I. and II. London: Longmans. Pp. 504 and 454.

WHAT are you to say of a work in its sixth edition? It must have pleased the public, and that in the eyes of many is all in all. But Professor Tyndall occupies a peculiar position: he is one of the few whom the Americans call "scientists" who possess the gift of eloquence. He is clear and brilliant, yet not superficial. In these respects he is a fitting successor to his great master Faraday. Tyndall may not be such a brilliant discoverer as his predecessor at the Royal Institution, but he certainly does a useful work in a way rarely equalled. Through him science is vivified at the lecture-table, as art has been through Ruskin. Fertile in expedient, calm and self-reliant, he constitutes a model to all would-be lecturers. What escapes his lips seems perhaps light enough, but only because it has passed through a mind thoroughly capable of understanding the point to be made, and possessing the *verve* to put it in good English. How could we do otherwise than recommend the two volumes to our readers! Those who have known the former editions know its value: the present one can only add to it.

Elements of Comparative Anatomy. By CARL GEGENBAUR, Professor of Anatomy and Director of the Anatomical Institute at Heidelberg. Translated by J. JEFFREY BELL, B.A., Magdalen College, Oxford. The Translation revised and a Preface written by E. RAY LANKESTER, M.A., F.R.S., Fellow of Exeter College, Oxford, and Professor of Zoology and Comparative Anatomy in University College, London. London: Macmillan and Co. Pp. 645.

GEGENBAUR has for some years represented the study of comparative anatomy, as it is commonly called, in the eyes of those who desired to make themselves acquainted with the subject. Would that there had been such a book when we were students! But we had to content ourselves with Patterson's Zoology, Dallas's Animal Kingdom, or Rymer Jones. If we desired to go further, there was the wonderful material contained in Von Siebold and Stannius, or the unrivalled productions of Huxley published in these columns. Now we have the sum and substance of all these in the volume before us. To attempt to criticise it would be useless—we should require a whole number or more in any such vain attempt. We would only note that Mr. Bell's English is fairly well done; that the study of natural history, exclusive of that of man, is not altogether overlooked in Oxford; and that Dr. Ray Lankester's additions to the volume are of somewhat doubtful value. The only thing which alarms us is, lest the work should fall into the hands of a newly appointed examiner at the College of Surgeons. Should this happen, woe betide the unfortunate candidates for the F.R.C.S.!

Clinical Lectures on Diseases of the Urinary Organs. Delivered by Sir HENRY THOMPSON, Surgeon-Extraordinary to H.M. the King of the Belgians, Emeritus Professor of Clinical Surgery and Consulting Surgeon to University College Hospital. Fifth Edition. London: J. and A. Churchill. Pp. 355.

AGAIN we have a book in a high edition—this time the fifth; and then again we have a book before us which has commended itself to the public. Such works are not easily dealt with, if real criticism is intended; but on the present occasion we may venture on something of the kind, especially as

regards the last chapter, entitled "The Examination of Urine for Clinical Purposes." This is the more important, inasmuch as we have certain figures of urinary deposits given, drawn by Sir Henry himself, whose skill with the peneil is well known. From this portion we cull the following samples:—"Oxalates do not form a visible deposit." "Mucus contains no specific corpuscle. Any such bodies in it are probably pus corpuscles, with which it is most frequently mixed." We have an idea that a corpuscle in mucus need not be a pus corpuscle wherever encountered. "Exudation, plastic, or compound granular corpuscles, the presence of which is indicative of inflammatory action in some part of the urinary tract."—Well, we should not have thought it! But *ne sutor ultra crepidam*. Sir Henry is certainly unrivalled in his way, but at the microscope we should prefer another teacher. Most people, we should have thought, understood that the compound granular corpuscle is only a cell in process of decomposition.

A Manual of Examination of the Eyes. By Dr. E. LANDOLT, Director of the Ophthalmological Laboratory at the Sorbonne, Paris. Translated by SWAN M. BURNETT, M.D., Lecturer on Ophthalmology and Otology in the Medical Department of the University of George Town, and Ophthalmic Surgeon to the Central Dispensary, Washington. London: Baillière, Tyndall, and Cox. Pp. 312.

THIS will be found to be an exceedingly useful book by those desiring to make themselves acquainted with ophthalmoscopy, whether for medical or purely special purposes.

An Introduction to the Practice of Commercial Organic Analysis, etc. By ALFRED H. ALLEN, F.C.S., Lecturer on Chemistry at the Sheffield School of Medicine, etc. Vol. I. London: J. and A. Churchill. Pp. 360.

THIS is one of those volumes which the daily increasing demands of commerce are bringing before the world. Mr. Allen is a well-known and highly esteemed analytical chemist, thoroughly competent for the work he has undertaken. The present volume deals with the so-called organic substances—cyanogen compounds, alcohols and their derivatives, phenols, acids of various kinds, etc.

Injuries and Diseases of the Lymphatic System. By S. MESSENGER BRADLEY, F.R.C.S., Surgeon to the Manchester Royal Infirmary; Lecturer on Practical Surgery, Owens College Medical Department, etc. London: J. and A. Churchill. Pp. 144.

THAT this is a valuable contribution to surgery there can be no doubt, but it begins in a most extraordinary way—half preface, half dedication,—which has in it something of the ludicrous. Mr. Bradley is, however, an accomplished surgeon, and he has here got together, altogether apart from his own special skill and powers of exposition, some most valuable material for future workers.

Parasites: a Treatise on the Entozoa of Man and Animals, including some account of the Ectozoa. By T. SPENCER-COBOLD, M.D., F.R.S., F.L.S., Honorary Vice-President of the Birmingham Natural History and Microscopical Society. London: J. and A. Churchill. Pp. 508.

THOUGH the author has written much on this subject, the present may be looked upon as an entirely new treatise. And in our view it well entitles him to the title of the English Kuehenmeister. Interesting in many ways, repulsive in others, the subject has never in this country been more ardently studied than by Spencer Cobbold, who well deserves the eminence these special studies have given him. The work is an encyclopædia on the subject, and well deserves any recommendation we can give it.

OPEN SPACES.—The Town Council of Huddersfield have accepted a gift of twenty-five acres of land for a public park at Dungeon Wood, a short distance from the town, offered by Mr. Henry Frederick Beaumont, who was one of the members for the Southern division of the West Riding in 1868. It is proposed to spend about £5000 to adapt the ground for a park.

FOREIGN AND COLONIAL
CORRESPONDENCE.

WILDBAD GASTEIN.

(By an Occasional Correspondent.)

THOSE of your readers who sit at home at ease, dreading the fatigues of foreign travel, or retained by the gratifying pressure of professional engagements, may perhaps find it not uninteresting to have a particular place brought before their view, to which patients often resort, and of which doctors often discourse. The traveller along the Pinzgau, who has perhaps been wandering on foot amongst the wilds of the Balzkammergut, finds, at the little town of Lend, obvious signs of the circulation of people of fashion; an inn of larger dimensions than those to which he has been accustomed, an urbane and officious landlord, a well-worn high road, and numberless carriages drawn by one, two, or three horses. If pressed for time or lazily inclined, he will hire to himself one of these vehicles, and drive up the valley of Gastein to Wildbad. The Pinzgau is that great valley which bounds on the north the long chain of alps of which the Gross Glockner and Gross Vemdeger are the two highest mountains; and Wildbad Gastein is at the top of one of the numerous secondary valleys, which run north and south, and communicate at their lower ends with the Pinzgau. It is broad and fertile, more than twenty miles long, ending towards the north in a narrow pass between absolutely sheer dark grey cliffs, and at its upper or southern end leading up into the snow-covered mountains, some of which form picturesque and prominent objects from this place. Through the valley runs a rapid and powerful stream, which has a considerable fall at the lower end, and which forms one of the most characteristic features of Wildbad Gastein itself. It dashes through the middle of the little town in a series of very considerable waterfalls, close to which the principal hotels are situated, and over which, as a bridge, is part of a long covered glass gallery, the *Wandelbahn*, which is used in wet weather as a promenade by visitors. The noise made by the cataracts is deafening, and is heard throughout the place—a soothing sound, no doubt, for some, but we can well believe that for other more sensitive individuals it may act as anything but a soporific. Wildbad is only one of three towns called Gastein. Hof Gastein, a little lower down the valley, was formerly much more important, in the days when the gold and silver mines in the mountains above were in full work; but since the fashion has set in for the former, the others have come to occupy secondary positions. Wildbad has all the appearance of a new town, and all the appearance also of a watering-place. It may be said to consist of several large hotels four or five storeys high, a number of villas and *hôtels garnis*, and a few older houses. These are all perched about on both sides of the stream in a very steep part of the valley, and surround a large white church, with the characteristic tall red spire so familiar to those who have explored this part of the world. The steepness of the valley prevents one house from shutting out the view from the next, and makes the whole combine in a manner that is most pleasing and artistic. At this time of year, when the season is at its height, in the hot part of the day, the small Square in front of Straubinger's Hotel, or rather between this and the Badeschloss, is occupied by genteel loungers of both sexes, who show obvious signs of having very little to occupy either body or mind. The same may be said of the *Wandelbahn*, mentioned above; this long covered way communicates with a reading-room and a *café*, and has a close and unpleasant atmosphere. In the middle of the day, indeed, if the weather be fine, the heat is excessive; but in the evening the air becomes deliciously cool and sharp, and then the visitors may be seen in small parties, sauntering along the well-kept paths and walks in the neighbourhood, or perhaps still sitting or strolling about the Square to listen to the strains of a brass band. A most remarkable feature of the atmosphere of the

town is that it is rendered always moist by the perpetual clouds of spray which arise from the waterfalls. This, we imagine, may be one of the important points in respect of the curative effects of Wildbad Gastein. The essential one, however, is supposed to depend upon the hot springs which exist there. We believe there are bathing establishments at all the hotels, and the water is supplied at a constant tap in the *Wandelbahn* for drinking purposes. There are several springs, and the water varies in temperature from 77° to 120° Fahr., and, as the guide-books tell us, contain a very small proportion of mineral ingredient, but the quantity is quite infinitesimal. It is absolutely tasteless and odourless, and appears to be not often drunk, but the cure consists in taking a series of baths, which are supposed to be beneficial for gout, nervous diseases, "debility," etc., and we can well understand it may be of considerable service in bronchial and other catarrhal affections. There is nothing remarkable about the baths themselves; each is large and square, about three feet deep, occupying a small separate chamber, and some of them provided with an arm-chair in the bath itself. Twenty or thirty exist in the establishment at Straubinger's Hotel. No variety exists amongst the baths—all are hot; but a *douche* and shower-bath can be had if the patient desires them. The drainage of the place appears to be good, and is carried away by the stream. The visitor is struck by the remarkable absence of those unpleasant smells to which his nose becomes accustomed in foreign towns and villages. The drinking-water, which is supplied by springs, is of great excellence, and of almost icy coldness. This part of the valley is well supplied with shady walks among pine-woods—a fact which must not be forgotten in considering the nature of its atmosphere; and for those who are fond of longer excursions the surrounding mountains will afford an extensive field for exploration. It cannot be said that many obvious invalids are to be seen; most of the visitors seem to be here for the sake of quiet enjoyment without being deprived of the company of their fashionable fellow-men, and for those who like this sort of thing we cannot conceive a more delightful place—ininitely superior, in our opinion, to its rival Ischl. We may add that the table at Straubinger's Hotel, and presumably at the other important ones, is really first-class; that English and French newspapers are provided in the reading-room; and that the postal arrangements are good. A diligence plies three times a day between Gastein and Lend.

GENERAL CORRESPONDENCE.

THE INDIAN ARMY COMMISSION ON FAMINE.

[To the Editor of the Medical Times and Gazette.]

SIR,—The telegraphic summary of Indian news in the *Times* of Monday, August 25, gives a sketch of a report on the Madras famine, by an Army Sanitary Commission at the headquarters of the Viceroy. It will be remembered that the Viceroy's government is under the heavy charge of having first ignored the famine, and afterwards of having adopted insufficient means of relief for the famine-stricken population. The Army Sanitary Commission, sitting at Calcutta or Simla, and reporting on the facts of the Madras famine, are said to have come to the following conclusions:—First, that the conditions which give rise to famine also give rise to pestilence, and therefore that the alleged famine mortality is only partially due to the famine. Secondly, that long-continued privation of food, short of actual famine, and short of that degree which forces people to apply for relief, produces fatal results which cannot be averted by subsequent feeding; consequently that famine mortality is not to be averted by mere expenditure of money.

The conclusions intended to be drawn from the report seem to be, that famine mortality was not famine mortality, and that, if it were, it could not be helped; in other words, a verdict of "not guilty" as to the charge of delay and inefficiency brought against the Viceroy's government. We hear sometimes of political judges and obsequious clergymen: let us hope that we shall not hear our own profession called "courtly,"—but this report of the Army Sanitary Commission would seem to justify the title.

I am, &c.,

DELTA.

OBITUARY.

SURGEON-MAJOR JOHN WALLACE, A.M., M.D.

DR. JOHN WALLACE, of the Army Medical Department, who died of cholera at Lundi Kotul on July 16, was educated at the Universities of Aberdeen and Edinburgh. He took the degree of A.M. at Aberdeen in 1859, and, passing to Edinburgh, took the M.D. degree of that University in 1862, and in the same year became a member of the Royal College of Surgeons of England. In 1864 he was gazetted Assistant-Surgeon to the 12th Foot, joined the regiment in New Zealand, was present with it throughout the campaign, and returned with it to England in 1867. In 1876 he proceeded to Bengal, and continued to serve with his old regiment till his death in June. He was an excellent and efficient officer, loved and valued by the officers and men of his regiment; and the following testimony to his worth appeared in the Orders of the Day, dated Lundi Kotul, July 17, by Colonel Frazer:—"Surgeon-Major John Wallace, M.D., 12th Foot, died last evening of cholera. In charge of the field hospital, Lundi Kotul, during a most trying and arduous time, he devoted himself to his duties with an energy which was ceaseless and untiring, and with a skill and kindness which will be remembered with gratitude by many a British soldier in this garrison. Thinking always of others, he took no heed of himself; but working on in sickness as he had done in health, he laid himself open to the attacks of the disease which has stricken him down, and has robbed his profession and his regiment of an honour to both."

CLEMENT WILLIAMS, M.R.C.S. ENG.

MR. CLEMENT WILLIAMS died from typhoid fever, at the villa of the Marquis della Stafa, near Florence, on June 26. Mr. Williams received his medical education at Guy's Hospital, and passed the first examination for the M.B. degree of the London University with honours, taking the gold medal for chemistry. In 1854 he became a member of the English Royal College of Surgeons. In January, 1855, he joined the army as Acting Assistant-Surgeon, hoping to see active service in the Crimea; but in this he was disappointed, having been sent to Corfu instead of to the Crimea. In 1857 he was appointed Assistant-Surgeon to the 68th Regiment, and accompanied it to India. There he set to work to learn Eastern languages, and soon obtained a good and useful knowledge of the colloquial and written languages of Burmah, and studied carefully also the history and institutions of the country, and the character and policy of its Court. These acquirements led to his being appointed, first, Correspondent at the Court of Burmah, and afterwards, in 1863, agent to the Chief Commissioner of British Burmah at Mandalay. In 1864, however, he was removed from the latter appointment, the Secretary of State for War having decided that medical officers were not to be employed in services unconnected with their profession; though military officers are very often, as is well known, permitted to hold diplomatic and other civil appointments for which they have shown themselves at all especially well qualified. Mr. Williams applied to be allowed to resign his commission as an army medical officer, and to be transferred to the Uncovenanted Service in India; but his application was refused, though it was very strongly supported by the British Commissioner at Mandalay, then Colonel Phayre. Mr. Williams had, however, the empty honour of receiving, by direction of his Excellency the Viceroy of India, "the thanks of the Government for the services rendered by him during the period of his incumbency."

When Mr. Williams returned to England he felt that the ordinary routine duties of the Army Medical Service would be so distasteful to him that he resigned his commission, and returned to Mandalay in a private capacity. There he exerted his influence with the King to promote the development of the mineral wealth of the kingdom. It is said that during the late disturbances he was the means of communication between the Burmese and Indian Governments. He was, we believe, only forty-five years of age when, on his way home, he died in Italy.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following are lists of the candidates who have passed the recent Honours Examinations:—

FIRST M.B. EXAMINATION.

ANATOMY.

First Class.—Edgar M. Crookshank (Exhibition and Gold Medal), King's College; William Lane (Gold Medal—obtained the number of marks qualifying for the Exhibition), Guy's Hospital; John Desmond Ernest Mortimer (obtained the number of marks qualifying for a Medal), Westminster Hospital.

Third Class.—Alfred Meeson, Liverpool Royal Infirmary, and Joseph James Udale, Guy's Hospital, *equal*.

HISTOLOGY AND PHYSIOLOGY.

First Class.—Thomas Harris, Owens College; William Eckett Fielden, Guy's Hospital.

Second Class.—William Lane, Guy's Hospital.

ORGANIC CHEMISTRY.

First Class.—Edwin Leonard Adeney (Exhibition and Gold Medal), Guy's Hospital; William Lane (obtained the number of marks qualifying for a Medal), Guy's Hospital; Charles Pardey Lukis, St. Bartholomew's Hospital.

Second Class.—Joseph James Udale, Guy's Hospital.

Third Class.—Richard Prothero, Liverpool School of Medicine and Guy's Hospital, and Richard Sisley, St. George's Hospital, *equal*.

MATERIA MEDICA AND PHARMACEUTICAL CHEMISTRY.

First Class.—Alexander Barrou (Exhibition and Gold Medal), Owens College and Liverpool Royal Infirmary; Alfred Daniell (obtained the number of marks qualifying for the Exhibition), Universities of Edinburgh and Paris; William Thomas Maddison, King's College.

Second Class.—Arthur George Dawson, Owens College, and James Macdonald Rogers, Middlesex Hospital, *equal*; Thomas George Stonham, London Hospital; George Coulson Robins Bull, St. Mary's Hospital; William Eckett Fielden, Guy's Hospital.

FIRST B.SC. AND PRELIMINARY SCIENTIFIC (M.B.) CONJOINTLY.

CHEMISTRY.

First Class.—Arthur Pearson Luff (Prel. Sci.), St. Mary's Hospital; John Shaw W. Chitty (First B.Sc.), Magdalen College, Oxford, and Wm. Ayton Gostling (Prel. Sci.), University College, *equal*.

Second Class.—Wm. Lawton Goodwin (First B.Sc.), University of Edinburgh; Frances H. Prideaux (Prel. Sci.), London School of Medicine for Women, and Emily Tomlinson (Prel. Sci.), Girton College, Cambridge, *equal*.

Third Class.—Adolph K. A. Spiegel (First B.Sc.), Owens College, and Walter Essex Wynter (Prel. Sci.), St. Bartholomew's and Middlesex Hospitals, *equal*; Horace Duncan (Prel. Sci.), University College, and John Stevenson (Prel. Sci.), Owens College, *equal*; Percy F. Frankland (First B.Sc.), Royal School of Mines and private study; Alfred Jefferis Turner (Prel. Sci.), University College.

EXPERIMENTAL PHYSICS.

First Class.—John Ryan (First B.Sc.—disqualified by age for the Arnott Medal), Cambridge (unattached).

Second Class.—Horace Duncan (Prel. Sci.), University College, and Wm. Arnison Slater (Prel. Sci.), Guy's Hospital, *equal*; Edmund Percival Cockey (Prel. Sci.), Epsom College; Sydney Young (First B.Sc.), Owens College; William Lawton Goodwin (First B.Sc.), University of Edinburgh; Alfred Jefferis Turner (Prel. Sci.), University College, and Frederick Womack (Prel. Sci.), St. Bartholomew's Hospital, *equal*; Robert Brewer Lee (First B.Sc.), private study.

Third Class.—Walter Essex Wynter (Prel. Sci.), St. Bartholomew's and Middlesex Hospitals; Philip Percival Whitecombe (Prel. Sci.), Epsom College and St. Mary's Hospital; Thomas Rudolphus Dallmeyer (First B.Sc.), University College and private study, Sidney Frederick Harmer (First B.Sc.), University College, and Henry Settle (Prel. Sci.), St. Bartholomew's Hospital, *equal*; Charles Stuart Spong (Prel. Sci.), Epsom College and Guy's Hospital.

BOTANY.

First Class.—Alfred Mason Vann (Prel. Sci.), King's College; George William Hill (First B.Sc.), King's College and St. George's Hospital.

Second Class.—Robert Fortescue Fox (Prel. Sci.), private study and London Hospital, and Catherine Alice Raisin (First B.Sc.), private study, *equal*; Thomas Sydney Short (Prel. Sci.), King's College.

ZOOLOGY.

First Class.—Bernhard F. Halford (Prel. Sci.—Exhibition), University College; Alfred Jefferis Turner (Prel. Sci.), University College.

Second Class.—Thomas William Shore (Prel. Sci.), Hartley Institution and Royal School of Mines.

Third Class.—Sydney S. Merrifield (Prel. Sci.), King's College; Alfred Ernest Taylor (Prel. Sci.), University College.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 28:—

Brown, James, Reading.
Gaylor, Norman Edward Johnson, Belper, Derbyshire.
Hutton, Henry Richardson, Epsom, Surrey.
Jones, Richard Thomas, Portmadoc.
Sanders, John William, Trowbridge.
Stilwell, Samuel Dillingcourt, King-street, Wigan.
Taylor, William Charles Everley, South Cliff, Scarborough.
Veale, William Edward, Plymouth.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Harper, Charles Frederick, Charing-cross Hospital.
Henslow, Fredk. Wakefield Doyle St. Thomas's Hospital.
Hepburn, John, Westminster Hospital.
Mason, Arthur Edwin, St. Thomas's Hospital.
Rygate, Robert Edward, London Hospital.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

BALLANCE, C. A., M.R.C.S., Assistant House-Surgeon to St. Thomas's Hospital.
DAVIES, D. S., M.R.C.S., L.S.A., House-Surgeon to St. Thomas's Hospital.
GROOME, W. W., M.B., M.R.C.S., House-Physician to St. Thomas's Hospital.
NEWSHOLME, A., M.R.C.S., Assistant House-Physician to St. Thomas's Hospital.
SHAW, J., M.R.C.S., L.S.A., Assistant House-Physician to St. Thomas's Hospital.
SMITH, R. P., L.R.C.P., M.R.C.S., House-Physician to St. Thomas's Hospital.
TAKAKI, K., L.R.C.P., M.R.C.S., Resident Accoucheur to St. Thomas's Hospital.
WILLIAMSON, R. J., M.A., M.R.C.S., L.R.C.P., House-Surgeon to St. Thomas's Hospital.

BIRTHS.

DALTON.—On August 26, at South Norwood, the wife of B. N. Dalton, M.D., of a daughter.
FEGAN.—On August 30, at Old Charlton, London, the wife of Richard Fegan, M.D., of a daughter.
FOWLER.—On August 28, at Epping, the wife of Trevor Fowler, L.K.Q.C.P., L.R.C.S.I., of a daughter.
SHAPTER.—On August 28, at The Barnfield, Exeter, the wife of Lewis Shapter, M.D., of a daughter.
THOMPSON.—On August 30, at the City and County Lunatic Asylum, Stapleton, near Bristol, the wife of George Thompson, L.R.C.P. Lond., Medical Superintendent, of a daughter.

MARRIAGES.

BLAKE—TWYNAM.—On August 27, at Soberton, Hants, William Henry Blake, M.B., B.Sc. Lond., of Lymington, Hants, to Elizabeth Alice, eldest daughter of the late Wm. Twynam, Esq., of East Hoe, Soberton, Hants.
GOODHART—BENNETT.—On September 2, at Blackheath, James Frederic Goodhart, M.D., of Weymouth-street, Portland-place, W., to Emma Sandford, youngest daughter of the late William Bennett, Esq., J.P., of Ashgrove House, Herefordshire.
GRUGGEN—HELBY.—On August 27, at Bloomsbury, William, only son of W. J. Gruggen, M.D., of Liverpool, to Rose, eldest daughter of Captain A. P. H. Helby, R.N., Governor of H.M.'s Prison, Cold Bath Fields.
PARSONS—WELLS.—On August 27, at Aimin, Yorkshire, Henry Franklin Parsons, M.D., of H.M.'s Local Government Board, late of Goole, to Louisa Anne, eldest daughter of the late John Wells, J.P., of Booth Ferry House, Howden, Yorkshire.
SHACKLETON—LEECH.—On August 27, in Dublin, Edmund Shackleton, L.R.C.S.I., to Anna Maria, daughter of Charles Leech, Esq., Q.C., of 40, North Great George-street, Dublin.

DEATHS.

BROAD, JAMES, M.D., at Cromwell House, Laurel-grove, Anerley, Surrey, on August 30, aged 42.
JONES, HARRIETTE SOPHIA, wife of John E. Jones, M.D., at Bryny Hynon, Dolgelly, on August 19, aged 43.
LOGAN, FREDERICK LOCKWOOD, M.D. Edin., late of Adelaide, South Australia, at Torryburn, Paterson, N.S. Wales, on July 2.
MASON, JOSEPH WOOD, second surviving son of Joseph Wood Mason, M.D., M.R.C.S., of Catford Bridge, accidentally drowned at Hampton Wick, on August 27.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BIRMINGHAM GENERAL HOSPITAL.—Candidates must be graduates in medicine of a University by examination, and Fellows or Members of the Royal College of Physicians in London; but twelve months from the date of election will be allowed for obtaining the F.R.C.P. or M.R.C.P. Applications, accompanied by diplomas or certificates of registration and original testimonials, to Wm. T. Grant, House-Governor, on or before September 29.

DREADNOUGHT SEAMEN'S HOSPITAL, GREENWICH, S.E.—House Physician. Candidates must be Members or Licentiates of the Society of Apothecaries, Fellows or Members of the Royal College of Surgeons of England, unmarried, and under thirty years of age. Applications, with particulars of professional qualifications, and references as to moral character, to Henry C. Burdett, Secretary, on or before September 10.

DREADNOUGHT SEAMEN'S HOSPITAL, GREENWICH, S.E.—House-Surgeon. Candidates must be Members or Fellows of the Royal College of Surgeons of England, unmarried, and under thirty years of age. Applications, with particulars of professional qualifications, and references as to moral character, to Henry C. Burdett, Secretary, on or before September 10.

JERSEY GENERAL DISPENSARY.—A Resident Visiting and Dispensing Medical Officer, possessing the double qualification, and unmarried, is wanted for November 1. Canvassing vitates election. Election probably early in September. Address, Honorary Secretary of Jersey General Dispensary, Oak-walk, Jersey.

KENT AND CANTERBURY HOSPITAL.—House Surgeon. Candidates must be duly registered, unmarried, and not more than forty years of age. Applications, with testimonials, to the Secretary at the Hospital, from whom further particulars may be obtained, on or before September 26.

MANCHESTER ROYAL INFIRMARY.—Honorary Assistant-Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England. Applications, with diplomas, original testimonials, and a certificate of age, to the "Chairman of the Board," on or before September 20.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Belford Union.—Mr. L. G. Broadbent has resigned the East District; area 12,727; population 2700; salary £25 per annum.

Pateley Bridge Union.—Mr. E. Warburton has resigned the Workhouse; salary £10 per annum. Also the Northern and Central District; area 51,758; population 5123; salary £30 per annum.

Ticehurst Union.—Mr. C. Vipan has resigned the Hurstgreen District; area 10,022; population 2974; salary £40 per annum.

APPOINTMENTS.

Manchester Township.—Jacob Daniel, L.R.C.P. Edin., L.R.C.S. Edin., as Resident Assistant Medical Officer at the Workhouse.

Newport Pagnel Union.—Wm. J. Mackie, L.K. & Q.C.P. Ire., L.B.C.S. Ire., to the Eighth District.

THE MEANWOOD CONVALESCENT HOME FOR CHILDREN.—The new Convalescent Home for Children recently erected at Meanwood, near Leeds, was opened on the 30th ult. by Miss Beckett, of Somerby Park, and the Bishop of Ripon. The building will accommodate about eighteen children, and is pleasantly situated on the high road between Meanwood and Moortown, having frontages to the south, east, and west aspects. Besides the usual kitchen, offices, and out-buildings, which are placed in the rear to the north, a dining-room with south and east aspect, and a day-room with south and west aspect, are provided on the ground-floor, with a matron's room, store-room, and other conveniences. The kitchen, placed in the rear of the dining-room, has a buttery hatch or window for serving purposes, and the matron's room has an inspection-window overlooking the day-room. Suitable dormitories are provided on the chamber floor, also matron's and servants' bedrooms, with inspection windows overlooking the dormitories. A lavatory and bath-room with cold and hot water services, linen-room, etc., are also provided on this floor. Much attention has been paid to light and air, drainage, and the proper ventilation of all drains, soil-pipes, etc., and to providing ample superficial and cubic space to the day-rooms and dormitories, and other matters of detail necessary to render the Home healthy and comfortable. The building has been erected by the late Mr. Moxon, of Headingley, from plans prepared by Mr. John Birch, of John-street, Adelphi.

PILOCARPIN IN THE OEDEMA OF PREGNANCY.—Dr. Bidder related at the St. Petersburg Society of Physicians the following case, which he treated in the way described, having from previous experience assured himself that pilocarpin does not induce pains during labour:—A primipara, aged twenty-five, was admitted into the lying-in hospital in her eighth month of pregnancy, suffering from considerable oedema of the face, extremities, and external genitals—the small labia forming shining tumours as large as a fist. The urine contained a considerable quantity of albumen. Various remedies having been tried in vain, and one of the labia threatening to become gangrenous, a Pravaz syringe of a solution (20 per cent.) of pilocarpin was injected twice on the 1st of the month, salivation following shortly after, and somewhat later profuse sweating. The oedema had already become much less by the next day, and on the third another injection was employed. By the twelfth all oedema had disappeared, and the albumen of the urine had greatly diminished. No uterine pains were induced during this treatment, and when her full time arrived the woman had an easy delivery of a large child.—*St. Petersburg. Med. Woch.*, August 16.

ADMINISTERING MORPHIA BY THIMBLE-BLISTERING.

—An ordinary thimble, a little loosely picked raw cotton, and enough strong aqua ammoniæ to saturate the cotton without running out, are the agents required. Gently press the thimble over the selected spot until a sensation of heat has been felt for two or three minutes, and wipe away any ammonia which may remain on the surface. Now, with the finger rub away the superficial skin, and apply dry morphia by at first rubbing in and then carefully adding a drop of water. A small quantity of morphia may be repeated at intervals until relief is obtained. Be sure you hold on until you get the blistered surface. Do not rub at the skin and then apply the ammonia. For affections of the face and head I select the mastoid portion of the temporal bone. Within the last few years, roughly speaking, I have used this mode probably one hundred times, and in but two cases have I had obstinate nausea, and in these I imprudently used too much morphia.—*Dr. J. Watson in the Virginian Med. Monthly.*

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—Bacon.

Senex.—The terms and conditions may be known on application to the Secretary of the College; the names of the adjudicators are not known.

Dr. Campbell and a Guardian.—You will find the desired information in the Students' Number of the *Medical Times and Gazette*, which will be published on the 13th inst.

W. W., Yorkshire.—The anecdote is—Swift's Stella in her last illness being visited by her physician, he said, "Madam, I hope we shall soon get you up the hill again." "Ah," said she, "I am afraid before I get to the top of the hill I shall be out of breath."

The Artisans' Dwellings Company, Dublin.—At the sixth general meeting of the Company, held last week, it was announced that the houses belonging to the Company let readily, and that further buildings, to cost £100 each house, are in course of erection.

Milk-Cure Institutions.—Dr. Grub first started, at Stuttgart, a milk-cure institution for the benefit of infants and invalids. It has since been imitated at Frankfort, Berlin, Strasburg, Munich, Cologne, Vienna, Basle, and Zurich. A similar institution is to be erected at Berne.

Trade Depression—Marriages—Health.—The annual marriage-rate in this country for the first two quarters of the present year was respectively 11.6 and 35.2 per 1000 of the population. In the former quarter it was lower than has been experienced in any previous corresponding quarter for forty-two years. In the latter it was lower than in any June quarter since 1869. Probably, if accurate statistics could be obtained of the illnesses, and even the number of deaths and suicides, caused by "trade depression," they would disclose the same tale as that told by the reduced marriage-rate.

The Afghan War.—It is both interesting and instructive to take note of the comparative immunity enjoyed by the 4th Goorkhas from the heavy mortality which in almost every other instance attended the homeward march of the troops from Afghanistan. With death and disease in front and rear, and all around them, this gallant corps lost only twelve fighting men and three camp followers from cholera between Gandamak and Bukloh. But then the precautions taken by the officer in command and the medical officer of the regiment were exceptionally stringent. The regiment was never halted on any spot of ground where other troops had halted before, but always to the windward of such ground, and never less than half a mile from it. During the march the heat was terrific, the thermometer in an airy mess-tent reaching 122°, and in the men's tents 180°. The mortality from cholera and heat-apoplexy in other corps, especially between Jellalabad and Jhelam, has been most lamentably heavy.

Uncertified Deaths.—It appears from the report of the Registrar-General for the past quarter that during that period the causes of 6091 deaths, or 4.6 per cent. of the whole number of deaths in England, were uncertified, no certificate of a registered medical man being furnished, and no inquest being held. Although the proportion of uncertified deaths appears to be gradually declining, it is still very high in particular districts. During the past quarter the percentage in London was 1.2, while in Westmoreland it was 11.7, in South Wales 12.9, and in North Wales 14.4. The proportion of uncertified deaths in twenty large towns in England averaged 2.6 per cent. In some towns a striking and steady decline is observable in the proportion of uncertified deaths since the medical officers of health called the attention of their sanitary authorities to the very large proportion of deaths which were being registered without any proper certificates of their cause. It is pointed out by the Registrar-General that like action on the part of the sanitary authorities where the proportion is still excessive would probably be attended with similar success.

Two Candidates.—As the Arts examination for the diplomas of fellowship and membership of the College of Surgeons was only brought to a close this day (Friday), and there are several hundred papers to be read, you cannot possibly expect the result to be known until about the middle of the present month.

St. George's.—We do not undertake to decide bets. Sir Benjamin Brodie was the first President of the General Medical Council, having been elected in November, 1858. Mr. Joseph Henry Green, the second President, died while holding office, in December, 1863. Sir George Burrows, Dr. G. E. Paget, and Dr. H. W. Acland, were each re-elected to a second term of the office.

Mr. Turner.—The first number of the *Medical Times* appeared on Saturday, September 23, 1839: it has therefore been in existence forty years this month. The first editor and proprietor was the late Mr. Frederick Knight Hunt, M.R.C.S., who died when chief editor of the *Daily News*. Dr. Peter Hennis Green was editor of the journal mentioned by you and we believe is still living at Fontainebleau, in France.

Cured by Fright.—In Paris, a few days ago, a girl twelve years old was at school, and during a thunderstorm the electric fluid fell close to her. For a moment she seemed to be suffocated, but this sensation soon passed off into a fit of hiccough. This became so distressing that after three days her mother took her to the hospital for advice. The surgeon ordered her to be taken to the operating theatre, where, on seeing the medical man standing at a table covered with some instruments, and surrounded by a number of assistants in white aprons, the child became so terrified that she forgot her hiccough, which did not re-commence, and she was cured.

Water from the Severn for Liverpool.—The Town Council of Worcester have resolved—"That, in the opinion of the Council, the project for the abstraction of 52,000,000 gallons of water daily from the sources of the Severn for the supply of Liverpool and other centres of population threatens to put in jeopardy the potability of the water of the river for the supply of this city, it appearing from evidence given before a Royal Commission that the dry-weather flow of the Severn below Worcester—viz., at Tewkesbury—after receiving the rivers Teine and Avon, is not more than 90,000,000 gallons per day."

Casualties on Railways in the United Kingdom.—Although the general report of the Board of Trade on the accidents which occurred on railways in the United Kingdom during last year contrasts favourably with those of the eight preceding years, when the large increase in the number of trains of all descriptions and the number of passengers is considered, still the total number of persons returned as having been killed during the year was 1053, and those injured 4007. Amongst the causes which have led to this greater freedom from accidents is, no doubt, the stricter exercise of the powers conferred upon the Board of Trade by the Regulation of Railways Act, and an improved system of traffic precautions and rules.

The Climatic Effect of the Excessive Wet Weather.—An evening contemporary, referring to a somewhat extensive correspondence addressed to them by people in this country on a peculiar climatic effect experienced by them from the excessive wet weather, says the general tenor of the correspondence in question is, that although sufferers are apparently in good bodily health, they feel as if the reverse was the case. One writer says, "Neither lassitude nor limpness would express my sensations. I have plenty of energy left, but it seems as if my bones have no more rigidity than if I were a sardine à l'huile." Another (a lady) declares that she sometimes catches herself wondering whether it would not be a pleasant way of passing the time to suspend herself by means of comfortable ligatures to a peg in her wardrobe. A third, parodying what Sydney Smith once said of his own feelings during exceptionally hot weather, describes his present experience of life as "taking out my bones and sitting in my flesh all day long. What is the best remedy for such a hapless condition of existence? Let our doctors speak out on this head, and their advice will be acceptable in many a household. They have laid down all the necessary rules for life under ordinary circumstances."

The Value of Bees.—The following account of a scientific way of looking at and calculating the working value of bees, which we borrow from our contemporary *Nature*, may amuse as well as instruct those among our readers who are bee lovers. The "Bienenwirtschaftliche Hauptverein" of the Saxon Kingdom states in its *Jahresbericht* for 1878: It has ever been one of the objects of all agricultural societies to prove the great importance of bees to agriculture generally. It appears that the Society named possesses 17,000 hives, from each of which 10,000 bees fly out daily, which represents a total of 170 millions of bees. If we suppose that each bee undertakes but four journeys per day, and that this takes place only on 100 days out of the 365, then we obtain a yearly total of 68,000 millions of bee-journeys. It is not too much to suppose that fifty flowers are visited on each journey, and we are certainly justified in supposing that five out of these fifty are fertilised; then we get a grand total of 340,000 millions of fertilised flowers per year. Let the value of fertilising 5000 blossoms be but 1 pfennig (or 500,000 for 1s.), then the work done by bees of the Society represents a value of 68 million pfennigs, or £34,000 sterling. It results from these calculations that each hive benefits agriculture to the amount of £2 annually, a value which hitherto has been totally overlooked.

The Manchester and Salford Sanitary Association.—The report, recently published, after announcing that two engineers had been appointed to the Association, and inviting householders to obtain their services for the sanitary inspection of their dwellings, refers to the non-application in Manchester of the Artisans' and Labourers Dwellings' Improvement Act, 1875. The committee urged that the excessive mortality of several districts was due, in a great measure, to the unhealthy conditions in which the inhabitants lived. They estimated that at least 600 lives were annually lost to the community by these causes, and a proportionately excessive amount of disease weighed heavily upon the population. By the death of Dr. Eason Wilkinson, the Association had lost one of its founders. In the past year the Association had been amalgamated with the Ladies' Sanitary Society—a union which, no doubt, would prove beneficial.

The Russo-Turkish War.—A German medical periodical gives a graphic picture of the sufferings and ravages caused by disease of the Russian troops during the winter campaign of 1877-78, on the Balkan peninsula, from some notes written by one of the doctors of the Russian army. The writer was attached to the battalion of rifles of the Guard, and after the fall of Plevna accompanied his corps in its march across the Balkans. After detailing the utter misery of the men, the intense cold weather, and the sickness which prevailed during the route, he adds:—"One by one the doctors accompanying the battalion were stricken with fever, and had to be left behind, and when finally the battalion reached San Stefano, on March 2, not one surgeon remained with it. At San Stefano the virulence of the epidemic, if anything, increased. The hospital of the division to which the battalion whose movements we are following belonged was fitted to receive sixty patients. Before long it was crowded with a thousand cases, and its staff had then to turn away hundreds of sick sent to it from their regiments." Of the number who died no record has been ever published—probably none exists; but it is certain that the mortality in the Russian army during the winter campaign of 1877-78, and during the spring of the latter year, was fearful.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Revue Médicale Française et Etrangère—Louisville Medical News—Nature—Boston Medical and Surgical Journal—Gazette Hebdomadaire des Sciences Médicales de Montpellier—National Board of Health Bulletin—American Bookseller—Indian Medical Gazette—Centralblatt für Gynäkologie—National Anti-Compulsory Vaccination Reporter—Glasgow Medical Journal—Veterinarian—L'Union Médicale d'Orient—Archives Générales de Médecine—El Siglo Médico—Monthly Homœopathic Review—Edinburgh Medical Journal.

COMMUNICATIONS have been received from—

Dr. HENRY THOMPSON, London; Mr. R. W. PARKER, London; Dr. ED. SPARKS, Crewkerne; Dr. NORMAN KERR, London; THE REGISTRAR OF LONDON UNIVERSITY; Surgeon-Major L. KIDD, M.B., Exeter; Dr. R. SMITH, Aberdeen; THE REGISTRAR OF APOTHECARIES' HALL, London; Mr. M. BECHER, Buxton; Dr. T. W. HINE, Sheffield; Mr. R. J. GODLEE, London; Dr. B. NICHOLSON, London; Dr. SANSOM, London; Dr. NORMAN CHEVERS, London; Dr. J. W. MOORE, Dublin; Dr. GAVIN MILROY, Richmond, Surrey; Mr. J. CHATTO, London.

APPOINTMENTS FOR THE WEEK.

September 6. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

8. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

9. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

10. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

11. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

12. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m. QUEKETT MICROSCOPICAL CLUB (University College), 8 p.m. Meeting.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 30, 1879.

BIRTHS.

Births of Boys, 1293; Girls, 1203; Total, 2502.

Average of 10 corresponding years 1869-78, 2231.1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	718	673	1391
Average of the ten years 1869-78 ...	700.4	653.8	1354.2
Average corrected to increased population ...	...	...	1449
Deaths of people aged 80 and upwards ...	...	...	40

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West ...	561359	...	5	13	...	2	...	...	...	43
North ...	751729	3	16	9	2	6	...	1	...	42
Central ...	334369	...	7	3	1	1	...	...	...	13
East ...	639111	...	9	16	...	12	...	...	2	55
South ...	967692	4	7	18	10	22	1	5	2	56
Total ...	3254260	7	44	59	13	43	2	6	5	209

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	29.598 in.
Mean temperature ...	...	58.4°
Highest point of thermometer ...	...	72.5°
Lowest point of thermometer ...	...	48.0°
Mean dew-point temperature ...	...	54.0°
General direction of wind ...	...	S.W.
Whole amount of rain in the week ...	...	1.51 in.

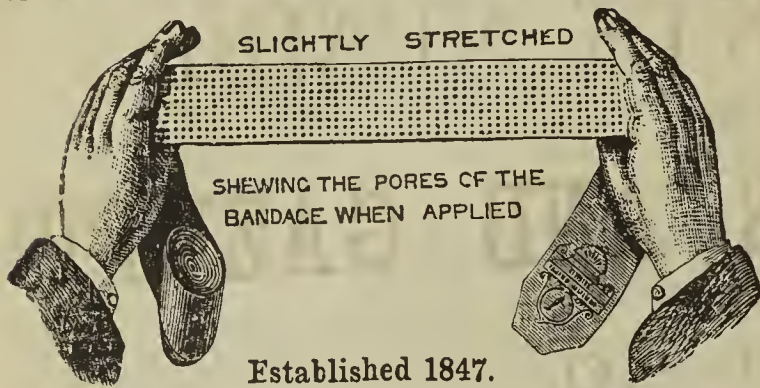
BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 30, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Aug. 30.		Deaths Registered during the week ending Aug. 30.		Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
			Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Weekly Mean of Mean Daily Values.	In Inches.	In centimetres.				
London ...	3620868	48.0	2502	1391	72.5	49.0	58.4	14.66	1.51	3.84		
Brighton ...	105608	44.9	63	27	68.8	50.8	58.7	14.83	1.35	3.43		
Portsmouth ...	131821	29.4	74	28	...	...	...	...	...	...
Norwich ...	85222	11.4	41	27	70.0	50.0	58.8	14.89	1.34	3.40		
Plymouth ...	74293	53.3	48	31	66.5	46.0	57.5	14.17	1.51	3.84		
Bristol ...	209947	47.2	171	70	...	...	...	...	...	...
Wolverhampton ...	75100	22.1	41	18	69.1	44.9	55.5	13.06	0.72	1.83		
Birmingham ...	388884	46.3	323	130	...	...	...	...	...	...
Leicester ...	125622	39.3	109	47	70.0	45.2	57.8	14.34	0.80	2.03		
Nottingham ...	169398	17.0	106	56	74.8	44.3	58.3	14.61	0.72	1.83		
Liverpool ...	538338	103.3	425	223	67.8	47.8	5.55	13.06	1.37	3.48		
Manchester ...	361819	84.3	237	159	...	...	...	...	...	...
Salford ...	177849	34.4	133	65	...	...	...	...	...	...
Oldham ...	111318	23.9	86	31	...	...	...	...	...	...
Bradford ...	191046	26.5	121	50	70.2	48.4	56.5	13.61	1.38	3.51		
Leeds ...	311860	14.5	216	137	71.0	47.0	56.8	13.78	0.86	2.18		
Sheffield ...	297138	15.1	190	100	73.0	46.0	56.8	13.78	1.37	3.48		
Hull ...	146347	40.3	102	48	...	...	...	...	...	...
Sunderland ...	114575	41.4	82	37	76.0	48.0	60.1	15.62	0.69	1.75		
Newcastle-on-Tyne ...	146948	27.4	106	56	...	...	...	...	...	...
Edinburgh ...	226075	53.9	126	79	68.0	44.0	56.5	13.61	0.78	1.98		
Glasgow ...	578156	95.8	379	187	65.3	41.8	56.4	13.55	1.29	3.28		
Dublin ...	314666	31.3	186	129	65.8	40.7	54.8	12.67	1.34	3.40		
Total of 23 Towns in United Kingdom	8502896	38.6	5867	3126	76.0	40.7	57.2	14.00	1.14	2.90		

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.60 in. The highest reading was 29.85 in. on Sunday at noon, and the lowest 29.33 in. on Wednesday evening.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

H. STATHAM & CO.'S STRONG POROUS ELASTIC BANDAGES.



For the Cure of Ulcers and other Diseases of the Leg.

Specially prepared from the Best and Purest Para Rubber and Sulphur.

The Porous Elastic Bandage is filled with fine Pores, attaining all the advantages of Porosity without deteriorating the quality.

PRICES for the Bandages post-free, excepting the 21 ft. by 3 in., which will be sent by passenger train, carriage forward.

ft.	in.	wide,	2/ea.	ft.	in.	wide,	2/2 ea.
5	$\times 2\frac{1}{2}$	"	2/10 $\frac{1}{2}$	5	$\times 3$	"	3/5 $\frac{1}{2}$
7 $\frac{1}{2}$	$\times 2\frac{1}{2}$	"	4/	7 $\frac{1}{2}$	$\times 3$	"	4/9
10 $\frac{1}{2}$	$\times 2\frac{1}{2}$	"	5/3	10 $\frac{1}{2}$	$\times 3$	"	6/
15	$\times 2\frac{1}{2}$	"	7/4	15	$\times 3$	"	8/9
21	$\times 2\frac{1}{2}$	"		21	$\times 3$	"	

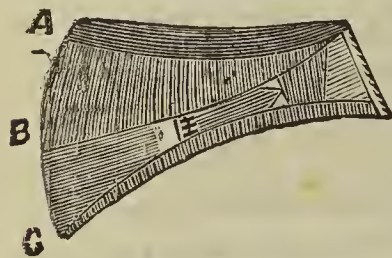
Other sizes in proportion.

Sole Makers and Patentees,
H. STATHAM & CO.,
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MANCHESTER.

London Agents—FOULGER, BUTLER, & BEDELLS, 133, St. George-street, E.

Salmon's Abdominal Belt,

in Silk Elastic, and Thread do., from 17s. to 50s.

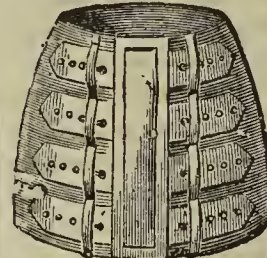


The Belt is light in texture and affords a more lifting support than any hitherto made, completely supporting the lower part of the Abdomen. It is recommended in cases of Obesity, Tumour, Prolapsus Uteri, and during and after Pregnancy.

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for immediate use after delivery, 6s. 6d.; by post, 6s. 10d.



The Binder is a substitute for the towel generally used immediately after labour. It is made of strong linen, and dispenses with the usual pinning. The advantages of the Binder are facility of application, combined with comfort and greater efficiency. Measurement required, ordinary size of the waist.

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(Corner of Wigmore-street.)

ULCERS AND OTHER DISEASES OF THE LEGS,

Varicose Veins, certain Skin Diseases, and Injuries and Result of Injuries to Joints, are with absolute and invariable certainty relieved and cured by the use of the

GENUINE DR. H. A. MARTIN'S STRONG PURE RUBBER BANDAGES.

See BRITISH MEDICAL JOURNAL, October 26 and December 14, 1878; LANCET, October 12, 1878.

CAUTION.

In justice not only to Dr. H. A. Martin and his method, but to the whole Profession, the Profession is cautioned against purchasing or recommending worthless imitations, which are sold in great numbers, advertised as "recommended by Dr. H. A. Martin," or as "suggested by Dr. H. A. Martin," which is misleading, the vendors not having a shadow of a title to use Dr. H. A. Martin's name in connexion with their bandages.

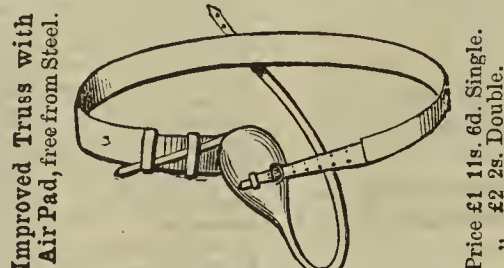
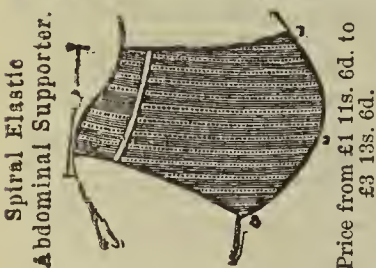
Each Martin's Bandage bears the signature of Dr. H. A. Martin, without which none is genuine, and can only be obtained wholesale or retail from Dr. H. A. Martin's Sole Agents—KROHNE & SESEMANN, 8, Duke-street, Manchester-square, London, W., or their appointed agents.

See Pamphlet, "SURGICAL USES OTHER THAN HÆMOSTATIC OF THE STRONG ELASTIC BANDAGE," by Dr. H. A. MARTIN, M.D. Boston, which can be obtained from Medical Booksellers, or from

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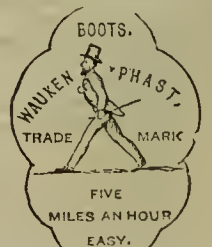
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THE STUDENTS' NUMBER

OF THE

MEDICAL TIMES AND GAZETTE

FOR

1879-80.

IN the present number of the *Medical Times and Gazette*, which is specially intended for the guidance of junior Students of Medicine and those about to become students, we have, to a great extent, overlooked the claims of their seniors for instruction and guidance. The reason is obvious. As soon as a student enters a school he becomes, or ought to become, part and parcel of it. His teachers will be always glad to help him with advice as to what is best to be done; and as this advice must be founded on a special knowledge of the man and his belongings, such advice is sure to be better than what we can give, as addressed to all. We therefore begin with the period of preparatory education, passing thence to the selection of a school, to the first year's studies, thence on to the second year and its appropriate studies, culminating in the first professional examination. With the third year's studies comes the second and in some instances final examination; in the case of certain examining bodies, this comes at the end of the fourth year; in many after three years only. In our remarks we shall have in mind for the most part the English Examinations, but those of Scotland and Ireland shall have due attention.

I.—PRELIMINARY EDUCATION.

By the Regulations of the General Medical Council, no person can be registered as a medical student unless he shall have previously passed a preliminary examination in the subjects of general education as hereinafter provided. For the present, testimonials of proficiency granted by educational bodies, according to the subjoined list, are accepted; the Council reserving the right to add to or take from the list. A degree in Arts of any university of the United Kingdom, or of the colonies, or of such other universities as may be specially recognised from time to time by the Medical Council is considered a sufficient testimonial of proficiency.

EXAMINING BODIES WHOSE EXAMINATIONS FULFIL THE CONDITIONS OF THE MEDICAL COUNCIL AS REGARDS PRELIMINARY EDUCATION.

I.—Universities of the United Kingdom.

Oxford.—Examination for a degree in Arts; Responsions; Moderations; Local Examinations (Senior), certificate to include Latin and Mathematics; Local Examinations (Junior), certificate to include Latin and Mathematics, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy, including mechanics, hydrostatics, and pneumatics.

Cambridge.—Examination for a degree in Arts; Previous Examination; Local Examinations (Senior), certificate to include Latin and Mathematics; Local Examinations (Junior), certificate to include Latin and Mathematics, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy, including the elements of statics and hydrostatics.

Durham.—Examination for a degree in Arts; Examination for students in their second and first years; Registration Examination for medical students; Local Examinations (Senior), certificate to include Latin and Mathematics; Local Examinations (Junior), certificate to include Latin and Mathematics, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy, including mechanics, hydrostatics, and pneumatics.

London.—Examination for a degree in Arts or Science; Matriculation Examination.

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Edinburgh, Aberdeen, Glasgow, St. Andrews.—Examination for a degree in Arts; Preliminary Examination for graduation in Medicine or Surgery.

Edinburgh, Aberdeen, St. Andrews.—Honours certificates granted under Local Examinations, certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy.

Glasgow.—Senior Certificate of Local Examination Board of the University; certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy.

Dublin.—Examination for a degree in Arts; Public Entrance Examination.

Queen's University (Ireland).—Examination for a degree in Arts; Entrance Examination; Examination for the diploma of Licentiate in Arts; Previous Examination for B.A. degree; Local Examinations for Men and Women, certificate to include all the subjects required by the General Medical Council as set forth in Recommendation 4.

Oxford and Cambridge Schools' Examination Board. (a) —Certificate to include—Arithmetic (including vulgar and decimal fractions), Algebra (including simple equations), Geometry (first two books of Euclid), Latin (including translation and grammar), also one of these optional subjects:—Greek, French, German, mechanical division of Natural Philosophy.

II.—Other Bodies named in Schedule (A) to the Medical Act.

Royal College of Surgeons of England.—Preliminary Examination for the Membership; Preliminary Examination for the Fellowship. Conducted under the superintendence of the Royal College of Surgeons, by the Board of Examiners of the College of Preceptors.

Apothecaries' Society of London.—Examination in Arts.

Royal College of Physicians, Edinburgh; Royal College of Surgeons, Edinburgh.—Preliminary Examination in General Education, conducted by a Board appointed by these two Colleges combined.

Faculty of Physicians and Surgeons of Glasgow.—Preliminary Examination in General Education.

Royal College of Surgeons in Ireland.—Preliminary Examination; certificate to include Mathematics.

Apothecaries' Hall of Ireland.—Preliminary Examination in General Education.

III.—Examining Bodies in the United Kingdom not included in Schedule (A) to the Medical Act (1858).

College of Preceptors.—Examination for a First Class Certificate.

Examiners for Commissions and Appointments in her Majesty's Service, Military, Naval, and Civil.—Certificate to include all the subjects required by the General Medical Council as set forth in Recommendation 4.

IV.—Indian, Colonial, and Foreign Universities and Colleges.

Universities of Calcutta, Madras, and Bombay.—Entrance Examination; certificate to include Latin.

Universities of McGill College, Montreal; Bishop's College, Montreal; Toronto; Trinity College, Toronto; Queen's College, Kingston; Victoria College, Upper Canada; Fredericton, New Brunswick; Melbourne; Sydney; Cape of Good Hope.—Matriculation Examination.

University of King's College, Nova Scotia.—Matriculation Examination; Responsions.

University of Otago.—Preliminary Examination.

University of Adelaide.—Matriculation Examination; Primary Examination, first-class certificate, provided it contains all the subjects set forth in Recommendation 4.

Medical College, Halifax, Nova Scotia.—Matriculation Examination.

Codrington College, Barbadoes.—English Certificate for Students of two years standing, specifying the subjects of examination and Latin Certificate, or "Testamur."

Tasmanian Council of Education.—Examination for the degree of Associate of Arts; certificate to include Latin and Mathematics.

Christ's College, Canterbury, New Zealand.—Voluntary Examinations; certificate to include all the subjects required by the General Medical Council, as set forth in Recommendation 4.

South Australia: South Australian Institute, Adelaide.—Preliminary General Examination—First Class Certificate.

The authorities of the University of Oxford simply say that each candidate for their degree must have graduated

(a) The *English* is provided for by the following resolution of the Executive Committee:—"That, as every candidate for the certificate of the Oxford and Cambridge Schools' Examination Board is required to answer questions in such a manner as to satisfy the examiners that he has an adequate knowledge of English Grammar and Orthography, this shall be held as conforming to the requirements of the Medical Council in reference to English Language."

in Arts—that is, attained at least to the rank of B.A. The University of London insists on all men who want to enrol themselves as candidates for their degrees, save those who have passed at certain colonial establishments, passing the somewhat stiff matriculation examination of the University. Though almost all the other examining bodies have preliminary examinations of their own, nevertheless the certificate of having passed one of them is in almost every case, with the above exceptions, accepted as evidence of a due knowledge of the subject of preliminary education, so that practically a student may pass when and where he chooses. Nevertheless, the great majority of students select the body whose final qualification they seek; hence it comes that in England most students select the preliminary examination of the Royal College of Surgeons or of the Apothecaries' Society. The former is conducted by the College of Preceptors, the latter by selected examiners. As the Preliminary Examination of the ROYAL COLLEGE OF SURGEONS OF ENGLAND is that most largely frequented, and is a very fair sample of the several requirements from gentlemen desiring to enter the profession, we give their programme, which is as follows:—

For the year 1879-80, and until further notice, the following are the subjects of examination:—

PART I.—COMPULSORY SUBJECTS.

1. Writing from dictation.
2. English Grammar.
3. Writing a short English Composition, such as a description of a place, an account of some useful or natural product, or the like.
4. Arithmetic. No candidate will be passed who does not show a competent knowledge of the first four rules, simple and compound, of vulgar fractions and of decimals.
5. Questions on the Geography of Europe, and particularly of the British Isles.
6. Questions on the outlines of English History; that is, the succession of the sovereigns, and the leading events of each reign.
7. Mathematics. Euclid, Books I. and II., or the subjects thereof. Algebra, to simple equations inclusive.
8. Translation of a passage from the second book of "Caesar's Commentaries—De Bello Gallico."

PART II.—OPTIONAL SUBJECTS.

Papers will also be set on the following six subjects; and each candidate will be required to offer himself for examination on one subject at least, at his option; but no candidate will be allowed to offer himself for examination on more than four subjects:—

1. Translation of a passage from the first book of the Anabasis of Xenophon.
 2. Translation of a passage from X. B. Saintine's "Picciola."
 3. Translation of a passage from Schiller's "Wilhelm Tell."
- (Besides these translations into English, the candidate will be required to answer questions on the grammar of each subject, whether compulsory or optional.)
4. Mechanics. The questions will be chiefly of an elementary character.
 5. Chemistry. The questions will be on the elementary facts of Chemistry.
 6. Botany and Zoology. The questions will be on the classification of plants and animals.

(The quality of the handwriting and the spelling will be taken into account.)

N.B.—Each candidate (who has not at a previous examination paid the amount) is required to pay a fee of £2 on the morning of the first day of the examination prior to his admission thereto. Examinations will be held in March and September. Particulars respecting the examination will be duly advertised in the journals. Candidates are required to apply for the prescribed form of application a month before the date of the examination, and to send the same to the College not less than three weeks before its commencement.

Notes.—A candidate, in order to qualify for the Membership, is required to pass at one and the same examination in all the subjects of Part I. and in one subject in Part II., and failure in any one of those subjects necessitates re-examination in all. A candidate, in order to qualify for the Fellowship, is required, in addition to the subjects included in Part I., to pass in not less than four, at his option, of the subjects in Part II. (In the year 1879, Euclid, Books III., IV., V., and VI., will be included in the optional subjects of Part II.)

Certificates in Arts granted by any of the bodies whose certificate is recognised by the Medical Council will be accepted from candidates who present themselves at the professional examination at the Hall, as equivalent to their having passed the above or other similar examination.

UNIVERSITY OF LONDON.

The following are the dates at which the several examinations for the year 1880 will commence:—

Matriculation: Monday, January 12, 1880. Bachelor of Science:

Second B.Sc., Monday, October 21. Bachelor of Medicine: Second M.B., Monday, November 4. Bachelor of Surgery: Tuesday, November 26. Master in Surgery: Monday, November 25. Doctor of Medicine: Monday, November 25. Subjects relating to Public Health: Monday, December 9.

Matriculation.—There shall be two examinations for Matriculation in each year—one commencing on the second Monday in January, and the other on the last Monday in June.(a) No candidate shall be admitted to the Matriculation Examination unless he have produced a certificate(b) showing that he has completed his sixteenth year. This certificate shall be transmitted to the Registrar at least *fourteen days* before the commencement of the examination. A fee of £2 shall be paid at matriculation. No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar.(c) The examination shall be conducted by means of printed papers; but the examiners shall not be precluded from putting, for the purpose of ascertaining the competence of the candidates to pass, *viva voce* questions to any candidate in the subjects in which they are appointed to examine. Candidates shall not be approved by the examiners unless they have shown a competent knowledge in each of the following subjects, according to the details specified under the several heads:—1. Latin. 2. Any two(d) of the following languages: Greek, French, German, and either Sanskrit or Arabic.(e) 3. The English Language, English History, and Modern Geography. 4. Mathematics. 5. Natural Philosophy. 6. Chemistry.

The following are the particulars of the foregoing subjects of examination:—

Languages.—Latin—One Latin subject to be selected by the Senate one year and a half previously from the works of the undermentioned authors(f):—*Virgil*: One book of the *Georgics*, and one book of the *Aeneid*. *Horace*: Two books of the *Odes*. *Sallust*: The Conspiracy of Catiline, or the War with Jugurtha. *Caesar*: Two books of the *Gallic War*. *Livy*: One book. *Cicero*: De Senectute or De Amicitia, with one of the following orations:—Pro Lege Manilia, one of the four Catilinarian Orations, Pro Archia, Pro M. Marcello. *Ovid*: One book of the *Metamorphoses*, and one book of the *Epistles* or *Heroides*. The paper in Latin shall contain passages to be translated into English, with questions in History and Geography arising out of the subjects of the book selected. Short and easy passages shall also be set for translation from other books not so selected. A separate paper shall be set containing questions in Latin grammar, with simple and easy sentences of English to be translated into Latin.(g) Greek(h)—One Greek subject to be selected by the Senate one year and a half previously from the works of the undermentioned authors(i):—*Homer*: One book. *Xenophon*: One book. The paper in Greek shall contain passages to be translated into English, with questions in grammar.(k) and with questions in history and geography arising out of the subjects of the book selected. Short and easy passages shall also be set for translation from other books not so selected. French—The paper in French shall contain passages for translation into English, and questions in grammar, limited to the Accidence. German—The paper in German shall contain passages for translation into English, and questions in grammar, limited (except when German is taken as an alternative for Greek) to the Accidence. Sanskrit; Arabic—The paper in Sanskrit and the paper in Arabic shall contain passages for translation into English, and questions in grammar. The English Language, English History, and Modern Geography—Orthography; writing from dictation; the grammatical structure of the language. History of England to the end of the seventeenth century; with questions in modern geography.

Mathematics.—Arithmetic: The ordinary rules of arithmetic; Vulgar and Decimal Fractions; Extraction of the Square Root. Algebra: Addition, Subtraction, Multiplication, and Division of Algebraical Quantities; Proportion; Arithmetical and Geometrical Progression; Simple Equations. Geometry: The First Four Books of Euclid, or the subjects thereof.

Natural Philosophy.(l)—Mechanics: Composition and Resolution of Statical Forces; Simple Machines (Mechanical Powers)—Ratio of the Power to the weight in each; Centre of Gravity; General Laws of Motion, with the chief experiments by which they may be illustrated; Law of the Motion of Falling Bodies. Hydrostatics, Hydraulics, and Pneumatics: Pressure of Liquids and Gases, its equal diffusion and variation with the depth; Specific Gravity, and modes of determining it; the Barometer, the Syphon, the Common Pump and Forcing Pump, and the Air Pump. Optics: Laws of Reflection and Refraction; formation of Images by Mirrors and Simple Lenses. Heat: its Sources; Expansion; Thermometers—relations between different Scales in common use; difference between Temperature and Quantity of Heat; Specific and Latent Heat—Calorimeters; Liquefaction; Ebullition; Evaporation; Conduction; Convection; Radiation.

(a) These examinations may be held, not only at the University of London, but also, under special arrangement (see Appendix I.), in other parts of the United Kingdom, or in the colonies.

(b) A certificate from the Registrar-General in London, or from the Superintendent Registrar of the district, or a certified copy of the baptismal register, is required in every case in which it can possibly be obtained. In other cases the best evidence procurable is admitted. The certificate of each candidate is returned to him when he inscribes his name on the Register of the University. Information respecting the time for doing this will be sent to each candidate when the receipt of his certificate of age is acknowledged.

(c) The fee must be paid when the candidate inscribes his name on the Register of the University.

(d) No credit will be given for more than two of these languages.

(e) Candidates who desire to be examined in either Sanskrit or Arabic must give at least *two calendar months' notice* to the Registrar, and must mention the other optional language which they select.

(f) The Latin subjects for 1880 are:—For January, 1880: *Cicero*, De Amicitia and the Speech pro Lege Manilia. For June, 1880: *Sallust*, De Bello Jugurthino.

(g) Special stress is laid on accuracy in the answers to the Grammar questions, and on the correct rendering of English into Latin.

(h) Candidates may substitute German for Greek.

(i) The Greek subjects for 1880 are:—For January, 1880: *Xenophon*, Agesilaus. For June, 1880: *Homer*, Odyssey, Book XI.

(k) Special stress is laid on accuracy in the answers to the questions in Greek grammar.

(l) The questions in Natural Philosophy will be of a strictly elementary character.

Chemistry.—Chemistry of the Non-metallic Elements, including their compounds as enumerated below, their chief physical and chemical characters, their preparation, and their characteristic tests. Oxygen, Hydrogen, Carbon, Nitrogen; Chlorine, Bromine, Iodine, Fluorine; Sulphur, Phosphorus, Silicon. Combining Proportions by weight and by volume; General Nature of Acids, Bases, and Salts; Symbols and Nomenclature. The Atmosphere—its constitution; effects of Animal and Vegetable Life upon its composition. Combustion; structure and properties of Flame; nature and composition of ordinary fuel. Water: Chemical peculiarities of Natural Waters, such as rain-water, river-water, spring-water, sea-water. Carbonic Acid; Carbonic Oxide; Oxides and Acids of Nitrogen; Ammonia; Olefiant Gas; Marsh Gas; Sulphurous and Sulphuric Acids, Sulphuretted Hydrogen. Hydrochloric Acid, Phosphoric Acid, and Phosphuretted Hydrogen; Silica.

ADVICE TO YOUNG CANDIDATES.

Thus far we have dealt with the mere rules and regulations of the various bodies, but it behoves us also to give the young candidate some advice on the subject of preliminary education. There can be no doubt of the exceeding value of these examinations in matters regarding general education. Nothing has done so much good in raising the general status of medical men, and in the upholding of the dignity of our profession, as the institution and general enforcement of them; and it becomes everyone who desires to enter this profession, and to fight his way to its highest posts of honour and emolument, to do all he can to maintain their status or to raise it even to a higher pitch.

To those who can by any possibility afford it, we should say, *Take a degree in Arts before entering upon the study of Medicine.* The training acquired at a University is invaluable, and the possession of a degree in Arts gives a man a start which can be obtained in no other way. It at once gives him the chances of those higher appointments so eagerly sought for, and gives him a stamp through life which is always acknowledged and respected.

Should the taking of a degree be for any reason impracticable, we should recommend as the next best test of preliminary education *the Matriculation Examination of the University of London.* This, too, is of great value, and is acknowledged by students among themselves, to say nothing of the outer world, as the mark of superior educational acquirements. It is notorious, too, that the medical graduates of this University, who constitute its real glory, number among their ranks the greater part of the most distinguished men of the day. Moreover, the possession of such a professional qualification as is given by the University of London—and this must begin with matriculation—is looked upon as the stamp and seal of superior professional acquirements. For all these and other reasons which could be adduced, we would strongly urge intending students of Medicine to pass their preliminary examination here; for, should they do so, they have the option at any future time of going on to take their degree in the University; but, according to the rules of the University, no part of medical education counts prior to the passing of their own Matriculation Examination. For this reason, therefore, *the student must pass this examination at the very beginning of his medical career.* He cannot turn back in the middle of his studies; whatever his qualifications, his chance is gone. Nothing is more hopeless than an attempt to make up for lost time in this way.

There is little difference, as regards preliminary education, between the requirements of the Royal College of Surgeons from those who look forward to the qualification of Membership, and those who aspire to the Fellowship. As the Fellowship of this body is looked upon as giving the same stamp to a surgeon as the M.R.C.P. of London does to a physician, we would earnestly urge all who can attain to it to *take up the additional preliminary subjects* required for the Fellowship. For should they at any future time desire to become Fellows of the College by examination, they will, in all probability, find that it is hard indeed to begin again the studies requisite for the passing of this preliminary examination.

APPRENTICESHIP.

In former days the mode of access to the profession was by apprenticeship to some regular practitioner, and this was till recently the rule at Apothecaries' Hall, but practically it has been almost completely departed from. Then the plan was for the young apprentice to enter his master's dispensary or surgery, where he would learn to compound medicines, make a pill, and spread a plaster; by-and-by coming in due course to see and prescribe for patients of various ranks, and suffering from various maladies. With a good master, no course of instruction could be better, and with it men were apt to make better practical practitioners than now, especially as regards the prescribing of medicines and their compounding. But with a careless master the system only tended to perpetuate routine practice, and to produce careless, ignorant, and self-conceited practitioners. Undoubtedly the plan rendered students, when they came to the hospital—which they did towards the close of their apprenticeship—much more at home and much more able to appreciate what they saw and heard around them. The system is not yet wholly forgotten, and with the proviso above mentioned, we heartily commend it. In a modified form it may still be usefully intercalated into the modern system of medical education. The number of years prescribed for this education is four, whilst most hospital courses are so arranged as to be got over in three, leaving a year unoccupied by class work. This year may be spent with advantage, either before entering the medical school, or after having finished the course. Of the latter we shall speak hereafter, but the young student may spend it well, before joining a hospital, in working in the laboratory of a general practitioner, learning something of Chemistry, Pharmacy, and Osteology, and thus preparing himself to enter the school with advantage. This gives him a decided pull over those who come straight to the hospital from a public school. Moreover, this is to be said: it is a good thing for a young man to feel his own weight, his responsibilities and duties, before entering a medical school. The change is so sudden and so violent, from the strict discipline of a school, to the almost unrestricted liberty of the medical student, that sometimes young lads lose their heads for awhile; but the almost uniform good behaviour of the medical students of the present day has a decidedly beneficial effect upon the newly entered candidates for medical qualification.

At all events, we would strongly urge on all intending students to acquire, before entering a medical school, some knowledge of Chemistry and Physics, and, if possible, an acquaintance with Human Osteology, commonly known as "the bones."

As will be seen by our advertising columns, a well-known gentleman—Dr. Wright, of Finchley—has undertaken to provide for something of the kind we have above hinted at, and we hope he will be thoroughly successful.

REGISTRATION.

As soon as the student has passed his preliminary examination, he ought to register his certificate at the office of the General Medical Council, 315, Oxford-street, W., or at that of one of the Branch Registrars, which will save him all further trouble as regards preliminary education. This is necessary, if the student desires to spend the first year with a general practitioner or at a country hospital, so as to make the time thus spent count. But when the student comes to enter a medical school, he must register the actual commencement of his hospital studies. In London every one used to register at the College of Surgeons; but that plan is abandoned. It is now the practice for the return required by the General Medical Council to be sent in by the school authorities. *All registration must be made within fifteen days of the beginning of medical studies.*

II.—PRELIMINARY SCIENTIFIC EDUCATION.

SPEAKING of general education, we have incidentally referred to the importance of certain scientific acquirements not generally insisted on in the medical curriculum. These, though not absolutely essential to some knowledge of Medicine, are so important as to be held in the first rank of subsidiary subjects. Of these, Mechanics, Botany, Chemistry, and Comparative Anatomy, being included in the usual educational course, are of most importance to the student, and every effort ought to be made to acquire a knowledge of them sufficient at least to pass an ordinary examination. The University of London, however, has instituted an examination known as the Preliminary Scientific, dealing with these and allied subjects. This examination is a very sharp test of a man's knowledge, and many break down under it. We strongly counsel all who desire to graduate in London to pass it, if possible, before entering on their purely medical studies. It is sad to see the loss of time implied by a man being forced to devote his attention to purely scientific subjects when he ought to be attending to others which belong to the later and more strictly professional periods of his career, and which he will in turn have to work up under like unfavourable auspices. The following are the regulations relating to this examination in the University of London:—

PRELIMINARY SCIENTIFIC (M.B.) EXAMINATION.

No candidate shall be admitted to this examination until he shall have completed his seventeenth year, and shall have either passed the Matriculation Examination (a) or taken a degree in Arts in one of the Universities of Sydney, Melbourne, Calcutta, or Madras (provided that Latin was one of the subjects in which he passed); nor unless he have given notice of his intention to the Registrar at least *fourteen days* before the commencement of the examination.

The fee for this examination shall be £5.

No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar. (b) If, after payment of his fee, a candidate withdraws his name, or fails to present himself at the examination, or fails to pass it, the fee shall not be returned to him; but he shall be allowed to enter for any *two* subsequent Preliminary Scientific (M.B.) Examinations without the payment of any additional fee, provided that he give notice to the Registrar at least *fourteen days* before the commencement of the examination; such notice, in respect to the privilege aforesaid, being considered equivalent to entry.

Candidates shall be examined in the following subjects (c):—

INORGANIC CHEMISTRY.

Differences between mechanical mixture, solution, and chemical combination; outlines of crystallography; formation of crystals; dimorphism; isomorphism; conditions on which the melting-point and the boiling-point of a substance depend; difference between elementary and compound substances; laws of chemical combination; equivalent weights of the elements; multiple proportions; the atomic theory; atomic value (quantivalence); molecules; molecular weights; relation between the density of a gas and its molecular weight; abnormal densities; Avogadro's hypothesis; combination of gases by volume; compound radicals; atomic and molecular combination. Meaning of chemical symbols, formulae, and equations; calculation of quantities by weight and by volume; chemical changes, and the conditions under which they occur; combination; decomposition; double decomposition; nature of acids, bases, and salts; capacity of saturation of acids and bases; nomenclature. Relation between atomic weight and specific heat; Faraday's electrolytic law; principles of spectrum analysis; diffusion of gases. Hydrogen, chlorine, bromine, iodine, fluorine; the combination of the last four elements with hydrogen. Oxygen; ozone; water and peroxide of hydrogen; the oxides and oxyacids of chlorine; chlorates and hypochlorites. Sulphur; sulphuretted hydrogen; the oxides of sulphur; sulphuric acid and the sulphates; sulphurous acid and the sulphites; chlorosulphuric acid. Nitrogen; the atmosphere and its relations to animal and vegetable life; ammonia; ammonium and its salts; the oxides of nitrogen; nitric acid and nitrates; nitrous acid and nitrites. Phosphorus; phosphoretted hydrogen; the oxides of phosphorus; phosphoric acid and the phosphates; chloride and oxychloride of phosphorus. Arsenic and its oxides; arseniuretted hydrogen; arsenious acid and its salts; arsenic acid and its salts; the sulphides of arsenic; detection of arsenic. Antimony, its oxides and sulphides; antimonuretted hydrogen; chlorides of antimony; compounds

of antimonie oxide; detection of antimony. Boron; boracic acid and the borates. Carbon; carbonic oxide and carbonic acid; the carbonates; carbon oxy-sulphide; sulphocarbonic acid; marsh-gas; ethylene; combustion; structure of flame; coal-gas; Davy lamp; principles of illumination. Silicon; Siliciuretted hydrogen; silicon chloride; silicon chloroform; silica and the silicates. Potassium; sodium; silver. Calcium; strontium; barium. Aluminium. Magnesium; zinc; cadmium. Lead. Manganese; iron; cobalt; nickel; chromium. Bismuth; copper; mercury; gold; tin. Platinum. The chief compounds of these metals with the more important acid radicals; the detection of these metals and their compounds, in powder or in solution.

EXPERIMENTAL PHYSICS.

[Candidates will be expected to show a general acquaintance with the methods and apparatus by which the leading principles of Physics as enumerated below can be illustrated and applied.]

Units of measurement. The laws of motion considered experimentally. The chief forces of nature. The general properties of solids, liquids, and gases. The nature, intensity, and transmission of fluid pressure in general. The pressure of liquids in equilibrium under the action of gravity. The equilibrium of solids floating or entirely immersed in gravitating fluids. The specific gravities of substances, with the ordinary modes of determining them. Measurement of the pressure of the atmosphere and of the elastic force of gases. Diffusion of liquids and gases. Definition of work and energy; conservation and transmutation of energy.

Acoustics.—Production and mode of propagation of sound; intensity, pitch and quality. Velocity of sound in air. Influence of temperature and density. Velocity of sound in other media. Laws of reflection and Refraction. Nature of musical sounds. Longitudinal vibrations of rods and of columns of air. Transverse vibrations of strings; variation in their rate of vibration by changes in their tension, length, thickness, and substance.

Heat.—Definitions of heat and temperature. Construction of instruments for the measurement of temperature. Expansion of solids, liquids, and gases under heat. Change of state; tension of vapours; latent heat. Radiant heat; its reflection, refraction, and absorption. Conduction; definition of thermal conductivity. Convection. Specific heat; mechanical equivalent of heat.

Magnetism.—Properties of magnets; induction—magnetic relations of iron and steel. Terrestrial magnetism.

Electricity.—Two electrical states, and their mutual relations. Conduction and insulation. Induction. Electric attraction and repulsion. Distribution and accumulation of electricity on conductors. Electric discharge. Voltaic electricity; the various batteries. Electro-motive force. Strength of currents, resistance; Ohm's law. Heating and chemical effects of electric currents; action between currents and magnets; electro-magnetism. Induced currents; magneto-electricity. Thermo-electricity.

Optics.—Laws of propagation of light; measurement of velocity of light; photometry. Laws of reflection and refraction of light. Reflection at plane and at spherical surfaces. Refraction at plane and at spherical surfaces. Refraction through lenses, including the formation of images. Chromatic dispersion.

BOTANY AND VEGETABLE PHYSIOLOGY. (d)

Structure, functions, and life-history of simple unicellular plants, such as *Protococcus* and *Saccharomyces* (yeast), as types of vegetable life. Structure, functions, and life-history of *Penicillium*, *Mucor*, or some other simple fungus. Structure, functions, and life-history of *Chara* or *Nitella*. Morphology, histology, and history of the reproduction of a fern. Morphology and histology of a flowering plant; structure of a flower; homologies of leaves and floral organs; histology of ordinary vegetable tissues, such as epidermis, parenchyma, fibro-vascular tissue, and their arrangement in the stem and leaves. General principles of vegetable nutrition; food of plants; action of green parts of plants; nature and flow of sap. Growth of a flowering plant; formation of wood and bark; nature of cambium. Reproduction of a flowering plant; structure of ovule; methods of fertilisation; development of ovule into seed; distinctive characters of gymnosperms. Distinctive characters of the principal British natural orders, viz.,—*Dicotyledons*, *Ranunculaceæ*, *Cruciferae*, *Caryophyllæ*, *Leguminosæ*, *Rosaceæ*, *Umbelliferae*, *Compositæ*, *Scrophulariaceæ*, *Labiatae*, *Amentaceæ*; *Monocotyledons*, *Orchidæ*, *Liliaceæ*, *Cyperaceæ*, *Gramineæ*; *Acotyledons*, *Filices*, *Musci*, *Lichens*, *Algæ*, *Fungi*. (Description in technical language of specimens of flowering plants to be provided by the examiners.) Derivation and meaning of the following terms, and demonstration of their application on specimens (provided by the examiners):—Thalamifloral, calycifloral, corollifloral; hypogynous, perigynous, epigynous; monandrous, diandrous, etc.; individual, variety, species, genus, order, class, kingdom.

ZOOLOGY.

General structure and life-history of the following animals, as types of some of the principal divisions of the animal kingdom:—*Amœba*, *paramœcium*, *hydra*, *tœnia*, *leech*, *mussel*, *snail*, *centipede*, *insect*, *lobster*, *frog*. Comparative structure of the digestive apparatus (including the teeth) in the dog, sheep, pig, and rabbit. Comparative structure and actions of the circulating and respiratory organs in the animals enumerated in the first paragraph, and also in each of the vertebrate classes. Essential structure of secretory organs; principal varieties in the structure of the liver and kidney. General plan of the nervous system in mollusca, arthropoda, and vertebrata. Proportionate development of the spinal cord and of the several encephalic centres in the ascending series of vertebrata. Respective functions of those centres. Modes of reflex action. Outlines of the comparative history of embryonic development in frog, bird, and mammal.

III.—PROFESSIONAL EDUCATION.

THE COURSES NECESSARY FOR QUALIFICATION.

THE object of medical education may be said, though somewhat inaccurately, to be twofold. The final end is, of course, to enable a man to practise his profession with advantage to him-

(d) Candidates for this and other botanical examinations are expected to bring with them a pocket-lens or simple microscope of two powers, and also a sharp penknife.

(a) A certificate of age must be produced by every candidate who shall have passed the matriculation examination in the preceding January or June.

(b) The fee must be paid when the candidate inscribes his name on the Register of the University. Information respecting the time for doing this will be sent to each candidate with the acknowledgment of his notice.

(c) Candidates who shall pass in all the subjects of the Preliminary Scientific (M.B.) Examination, and shall also pass at the same time in the Pure Mathematics of the first B.Sc. examination, or who shall have previously passed the first B.A. examination, shall be admissible to the second B.Sc. examination.—The attention of such candidates is directed to the fact that, under the new regulations for the B.Sc. degree, this degree may be obtained by passing at the second B.Sc. examination in the three biological subjects only.

self and safety to the public. But the only criterion or test of this capability available to the public is the *testamur*, certificate, or diploma of some responsible body, which is accepted and registered by the General Medical Council. These bodies are somewhat numerous, and their requirements very diverse; consequently, the young student must take care, provided he wants a given diploma, to make his course of instruction correspond with that required by the body whence he desires his qualification. Moreover, it often happens that after a time a man may, for certain reasons, desire the diploma of another body besides the one he originally contemplated; and for this reason alone, were it for no other, a wide curriculum is most desirable. We shall try to indicate the rules of the various bodies as briefly and clearly as possible.

(A.) REGULATIONS OF BODIES GRANTING THE DEGREE OF DOCTOR OF MEDICINE.

1. UNIVERSITY OF OXFORD.

DEGREES IN MEDICINE.

EVERY student in Medicine is required to have passed all the examinations for the degree of B.A., and to reckon the time of his medical study from the final examination for Arts.

1. Candidates for the degree of B.M. are required to pass two examinations, each of which is held yearly in full Michaelmas Term, usually at the end of November, due notice being given, in the usual manner, by the Regius Professor of Medicine.

The subjects of the first examination are Human Anatomy and Physiology, Comparative Anatomy and Physiology to a certain extent, and those parts of Mechanical Philosophy, Botany, and Chemistry which illustrate Medicine. The subjects of the second examination are the Theory and Practice of Medicine (including Diseases of Women and Children), the *Materia Medica*, Therapeutics, Pathology, the Principles of Surgery and Midwifery, Medical Jurisprudence, and General Hygiene. Every candidate at this second examination is to be examined in two of the ancient authors, Hippocrates, Aretæus, Galen, and Celsus; or in one of those four, and in some more modern author approved by the Regius Professor, as Morgagni, Sydenham, or Boerhaave.

Before a candidate is admitted to the first of these two examinations, he must have spent two years in professional studies after having passed the examinations required for the degree of B.A., unless he was placed in the first or second class in the School of Natural Science, in which case, if he received from the public examiners a special certificate of his attainments in Mechanical Philosophy, Chemistry, or Botany, he may be admitted to this examination at once, and need not then be examined again in any science specified in such certificate.

Before a candidate is admitted to the second examination, he must have completed sixteen terms from the date of the same *testamur*, and two years from the date of his *testamur* in the first medical examination, and must deliver to the Regius Professor satisfactory certificates of his attendance at some first-class hospital.

No one from another University can be incorporated as a graduate in Medicine without passing these two examinations, as well as having previously passed all examinations for the B.A. degree at his own University.

An examination in Preventive Medicine is held annually. Candidates must have taken the degree of B.M. at Oxford.

2. A Bachelor of Medicine wishing to proceed to the degree of Doctor is required to read publicly within the precincts of the Schools, in the presence of the Regius Professor, a dissertation composed by himself on some medical subject approved by the Professor, and to deliver to him a copy of it.

2. UNIVERSITY OF CAMBRIDGE.

REGULATIONS FOR DEGREES IN MEDICINE AND SURGERY.

Degree of Bachelor of Medicine.—Before a student can become a Bachelor of Medicine he must have resided nine terms (three academical years) in the University, and have graduated in Arts, or have passed the Previous Examination.

Five years of medical study are required, unless the student has graduated with honours as Bachelor of Arts, in which case four years of medical study are deemed sufficient.

There are three examinations for M.B.

The first examination is in—1. Chemistry and other branches of Physics; 2. Botany. Before presenting himself for it the student must have attended lectures on Chemistry, including manipulations, and on Botany.

The second examination is in—1. Elements of Comparative Anatomy; 2. Human Anatomy and Physiology; 3. Pharmacy. The student must have completed two years of medical study; and must also produce certificates of attendance on lectures on the Elements of Comparative Anatomy, Human Anatomy and Physiology, and Pharmacy; and of one year's hospital practice, and of one season's dissections.

The third examination is in—1. Pathology and Practice of Physic; 2. Clinical Medicine; 3. Medical Jurisprudence; 4. Principles of Surgery; and 5. Midwifery. The candidate must have completed the course of medical study, and must produce certificates of attendance on one course of lectures on each of the following subjects:—Pathological Anatomy, Principles and Practice of Physic, Clinical Medicine, Clinical Surgery, Medical Jurisprudence, and Midwifery, with attendance on ten cases of Midwifery; and of having attended the medical practice of a hospital during three years, and the surgical practice during one year; and of having been clinical clerk for six months at a recognised hospital, or of having had special charge of hospital, dispensary, or union patients under a qualified medical practitioner; and of having acquired proficiency in Vaccination.

After the third examination an Act has to be kept, which consists in reading an original thesis, followed by a *viva voce* examination on the subject of the thesis, as well as on other subjects of the Faculty.

The *Degree of Doctor of Medicine* may be taken three years after M.B. An Act has to be kept, with *viva voce* examinations and an essay has to be written extempore. A Master of Arts of four years' standing can proceed direct to M.D. provided he produces the same certificates and passes the same examinations as for M.B.

Degree of Master in Surgery.—The candidate must have passed all the examinations for the degree of M.B., and must produce certificates of having attended a second course of lectures on Human Anatomy, one course of lectures on the Principles and Practice of Surgery, one year's clinical surgical lectures, a second season of dissections, three years' surgical practice of a recognised hospital, and of having been House-Surgeon or Dresser for six months. The subjects of the examination are—1. Surgical Anatomy; 2. Pathology and the Principles and Practice of Surgery; 3. Clinical Surgery.

All the examinations for medical degrees take place in the Michaelmas and Easter Terms.

3. UNIVERSITY OF LONDON.

BACHELOR OF MEDICINE.

This University grants degrees both in Medicine and Surgery, and certificates in subjects relating to Public Health. Those available for young students are the Bachelorships of Medicine and Surgery.

Every candidate for the degree of Bachelor of Medicine shall be required—

1. To have passed the matriculation examination in this University (unless he has taken a degree in Arts in one of the Universities of Sydney, Melbourne, Calcutta, or Madras, and Latin was one of the subjects in which he passed).

2. To have passed the preliminary scientific examination.—See page 294. (Candidates for the degree of M.B. are strongly recommended by the Senate to pass the preliminary scientific examination before commencing their regular medical studies.)

3. To have been engaged in his professional studies during four years subsequently to matriculation or graduation in Arts, at one or more of the medical institutions or schools recognised by this University; one year, at least, of the four to have been spent in one or more of the recognised institutions or schools in the United Kingdom.

4. To pass two examinations in Medicine.

FIRST M.B. EXAMINATION.

The first M.B. examination shall take place once in each year, and shall commence on the last Monday in July.

No candidate shall be admitted to this examination unless he have passed the preliminary scientific examination at least one year previously, and have produced certificates to the following effect:—

1. Of having completed his nineteenth year.
2. Of having, subsequently to having passed the matriculation examination, or taken a degree in Arts in one of the before-named universities, been a student during two years at one or more of the medical institutions or schools recognised by this University; and of having attended a course of lectures on each of three of the subjects in the following list:—
DESCRIPTIVE AND SURGICAL ANATOMY, HISTOLOGY AND PHYSIOLOGY, PATHOLOGICAL ANATOMY, MATERIA MEDICA AND PHARMACY, GENERAL PATHOLOGY, GENERAL THERAPEUTICS, FORENSIC MEDICINE, HYGIENE, OBSTETRIC MEDICINE AND DISEASES PECULIAR TO WOMEN AND INFANTS, SURGERY, MEDICINE.

3. Of having, subsequently to having passed the matriculation examination or taken a degree in Arts, dissected during two winter sessions.

4. Of having, subsequently to having passed the matriculation examination or taken a degree in Arts, attended a course of Practical Chemistry, comprehending practical exercises in conducting the more important processes of general and pharmaceutical Chemistry; in applying tests for discovering the adulteration of articles of the *Materia Medica*, and the presence and nature of poisons; and in the examination of mineral waters, animal secretions, urinary deposits, calculi, etc.

5. Of having attended to Practical Pharmacy, and of having acquired a practical knowledge of the preparation of medicines. The fee for this examination shall be £5.

Candidates shall be examined in the following subjects:—
ANATOMY, HISTOLOGY AND PHYSIOLOGY, (a) MATERIA MEDICA AND PHARMACEUTICAL CHEMISTRY, ORGANIC CHEMISTRY.

Law of substitution; compound radicals; homologous series; principles of ultimate analysis. The chemical history of the cyanogen group; cyanogen; hydrocyanic acid; cyanic acid and urea; sulphydric acid; uric acid. Amylaceous and saccharine substances; fermentation; alcohol, wine, beer, bread, etc. Homologues of alcohol; ethers, simple and mixed; oxidation of alcohol; aldehyd and acetic acid and their homologues. Glycol and oxalic acid and their homologues. Glycerine; fatty and oily bodies; saponification. Principal vegetable acids. Ammonia and its derivatives; ammonium and ammoniacal salts. The chief natural organic bases. The chief constituents of the vegetable organism; cellulose; vegetable fibrin; albumin, casein, gluten, etc. The chief constituents of the animal organism; animal fibrin, albumin, casein, gelatin; blood, milk, bile, urine, etc. Decay, putrefaction; destructive distillation. The chemical principles of the processes of nutrition and respiration in plants and animals.

SECOND M.B. EXAMINATION. (b)

No candidate shall be admitted to the second M.B. examination within two academical years of the time of his passing the first examination, nor unless he have produced certificates to the following effect:—

1. Of having passed the first M.B. examination.
2. Of having, subsequently to having passed the first M.B. examination, attended a course of lectures on each of two of the subjects comprehended in the foregoing list, and for which the candidate had not presented certificates at the first M.B. examination.
3. Of having conducted at least twenty labours. (Certificates on this subject will be received from any legally qualified practitioner in medicine.)
4. Of having attended the surgical practice of a recognised hospital or hospitals during two years, with clinical instruction and lectures on Clinical Surgery.
5. Of having attended the medical practice of a recognised hospital or hospitals during two years, with clinical instruction on and lectures on Clinical Medicine. N.B.—The student's attendance on the surgical and on the medical hospital practice may commence at any date after his passing the preliminary scientific examination, and may be comprised either within the same year or within different years; provided that in every case his attendance on surgical and medical hospital practice be continued for at least eighteen months subsequently to his passing the first M.B. examination. Attendance during three months in the wards of a lunatic asylum recognised by the

(a) Any candidate shall be allowed, if he so prefer, to postpone his examination in Histology and Physiology from the first M.B. examination at which he presents himself for examination in the remaining subjects until the first M.B. examination in the next or any subsequent year; but such candidate shall not be admitted to compete for honours on either occasion; and he shall not be admitted as a candidate at the second M.B. examination until after the lapse of at least twelve months from the time of his passing the examination in Histology and Physiology.

(b) Any candidate for the second M.B. examination who has passed the first M.B. examination under the former regulations will be required to have also passed the examination in Physiology at some previous first M.B. examination carried on under the present regulations; at which examination he shall not be allowed to compete for honours.

University, with clinical instruction, may be substituted for a like period of attendance on medical hospital practice. (c)

6. Of having, after having attended surgical and medical hospital practice for at least twelve months subsequently to passing the first M.B. examination, attended to Practical Medicine, Surgery, or Obstetric Medicine, with special charge of patients, in a hospital, infirmary, dispensary, or parochial union, during six months, such attendance not to be counted as part of either the surgical or the medical hospital practical prescribed in Clauses 4 and 5.

7. Of having acquired proficiency in vaccination. (Certificates on this subject will be received only from the authorised vaccinators appointed by the Privy Council.)

The candidate shall also produce a certificate of moral character from a teacher in the last school or institution at which he has studied, as far as the teacher's opportunity of knowledge has extended.

The fee for this examination shall be £5.

Candidates shall be examined in the following subjects:—
GENERAL PATHOLOGY, GENERAL THERAPEUTICS AND HYGIENE, SURGERY, MEDICINE, OBSTETRIC MEDICINE, FORENSIC MEDICINE.

The examinations shall include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry.

BACHELOR OF SURGERY.

No candidate shall be admitted to the examination for the degree of Bachelor of Surgery unless he have produced certificates to the following effect:—

1. Of having passed the second examination for the degree of Bachelor of Medicine in this University.
2. Of having attended a course of instruction in Operative Surgery, and of having operated on the dead subject.

The fee for this examination shall be £5.

Candidates are examined in Surgical Anatomy and surgical operations, by printed papers; examination, and report on cases, of surgical patients; performance of surgical operations upon the dead subject; application of surgical apparatus; *visâ voce* interrogation.

MASTER IN SURGERY.

No candidate shall be admitted to this examination unless he have produced certificates to the following effect:—

1. Of having taken the degree of Bachelor of Surgery (d) in this University.
2. Of having attended, subsequently to having taken the degree of Bachelor of Surgery in this University—*a.* To Clinical or Practical Surgery during two years in a hospital or medical institution recognised by this University. *b.* Or to Clinical or Practical Surgery during one year in a hospital or medical institution recognised by this University; and of having been engaged during three years in the practice of his profession. *c.* Or of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Surgery in this University. (One year of attendance on Clinical or Practical Surgery, or two years of practice, will be dispensed with in the case of those candidates who at the B.S. examination have been placed in the first division.)
3. Of moral character, signed by two persons of respectability.

The fee for the degree of Master in Surgery shall be £5.

Candidates shall be examined in the following subjects:—
LOGIC AND PSYCHOLOGY.

Names, notions, and propositions. Syllogism. Induction and subsidiary operations. The senses. The intellect. The will, including the theory of moral obligation.

Any candidate who has taken the degree either of B.A., B.Sc. (if including Branch IX.), or M.D. in this University, is exempted from this part of the examination; and any candidate who has passed the second M.B. examination may at any subsequent M.S. examination present himself for Logic and Psychology alone, if he so prefer; thereby gaining exemption, if he should pass, from examination in that subject when he presents himself to be examined for the degree of Master in Surgery.

(c) The Senate regard it as highly desirable that candidates for the degree of M.B. should practically acquaint themselves with the different forms of insanity by attendance in a lunatic asylum.

(d) Candidates who have obtained the degree of Bachelor of Medicine previously to 1866 will be admitted to the examination for the degree of Master in Surgery without having taken the degree of Bachelor in Surgery; and in the case of such candidates, the attendance on surgical practice may commence from the date of the M.B. degree.

DOCTOR OF MEDICINE.

No candidate shall be admitted to this examination unless he have produced certificates to the following effect:—

1. Of having passed the second examination for the degree of Bachelor of Medicine in this University.

2. Of having attended, subsequently to having taken the degree of Bachelor of Medicine in this University—*a.* To Clinical or Practical Medicine during two years in a hospital or medical institution recognised by this University. *b.* Or to Clinical or Practical Medicine during one year in a hospital or medical institution recognised by this University; and of having been engaged during three years in the practice of his profession. *c.* Or of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Medicine in this University. (One year of attendance on Clinical or Practical Medicine, or two years of practice, will be dispensed with in the case of those candidates who at the second M.B. examination have been placed in the first division.)

3. Of moral character, signed by two persons of respectability.

The fee for the degree of Doctor of Medicine shall be £5.(e)

Candidates shall be examined in the following subjects:—

LOGIC AND PSYCHOLOGY.

Names, notions, and propositions. Syllogism. Induction and subsidiary operations. The senses. The intellect. The will, including the theory of moral obligation.

Any candidate who has taken the degree either of B.A., B.Sc. (if including Branch IX.), or M.S. in this University, is exempted from this part of the examination; and any candidate who has passed the second M.B. examination may at any subsequent M.D. examination present himself for Logic and Psychology alone, if he so prefer; thereby gaining exemption, if he should pass, from examination in that subject when he presents himself to be examined for the degree of Doctor of Medicine.

4. UNIVERSITY OF DURHAM.

FACULTY OF MEDICINE.

There are two licences and three degrees conferred, viz., a licence in Medicine and a licence in Surgery, and the degrees of Bachelor of Medicine, Master in Surgery, and Doctor of Medicine. A certificate of proficiency in sanitary science is also awarded.

For the Degree of Bachelor of Medicine there are two professional examinations—the first being held at the end of the winter session; the second during the summer session. In 1880, the first will commence on April 19, and the second on June 14. The subjects for the first examination are:—Anatomy, Physiology, Chemistry, and Botany. For it candidates must produce the following certificates:—

1. Of registration as a medical student.

2. Of having passed one of the following examinations in Arts—viz., (*a.*) the examination for graduation in Arts at one of the following Universities, viz.:—Oxford, Cambridge, Durham, Dublin, London, Queen's (Ireland), Edinburgh, Glasgow, St. Andrews, Aberdeen, Calcutta, Madras, Bombay, McGill College (Montreal), and Queen's College (Kingston); or (*b.*) the preliminary or extra-professional examination for graduation in Medicine at one of the following Universities, viz.:—London, Edinburgh, Glasgow, St. Andrews, Aberdeen, and Queen's (Ireland); or (*c.*) the preliminary examination in Arts qualifying for the Membership of the Royal College of Physicians of London, or for the Fellowship of the Royal College of Surgeons of England.

(Candidates who, at the commencement of their professional education, passed the Arts examination for registration only, may pass in the extra subjects required for the M.B. Durham, either before or after presenting themselves for the first examination for the degree, but must do so before presenting themselves for the final examination.)

The course of study required for the diploma of the Royal College of Surgeons is as follows:—Anatomy, two courses, six months each; Dissection, two courses, six months each; Chemistry, one course, six months; Practical Chemistry, one course, three months; Physiology, one course, six months; Practical Physiology, one course, three months; Principles of Surgery, one course, six months; Practical Surgery, one

course, six months; Materia Medica, one course, three months; Medicine, one course, six months; Forensic Medicine, one course, three months; Midwifery (with practical instruction, and a certificate of having personally conducted not less than ten labours), one course, three months; Pathological Anatomy, one course, three months; Practical Pharmacy, one course, three months; Vaccination (certificates of proficiency received only from recognised vaccine stations); Surgical Hospital Practice, three winter and two summer sessions; individual observation and examination of patients in hospital, three months; Clinical Lectures on Surgery, two winter and two summer sessions; Surgical Dressing, six months; Demonstrations in Post-mortem Room, three winter and two summer sessions; Medical Hospital Practice, one winter and one summer session; Clinical Lectures on Medicine, one winter and one summer session.

The subjects for the first examination are Anatomy, Physiology, Chemistry, and Botany; for the second examination, Medicine, Surgery, Pathology, Medical Jurisprudence, Materia Medica and Therapeutics, and Midwifery and Diseases of Women and Children. Candidates must produce the following certificates, viz.:—(1) Of not being less than twenty-one years of age; (2) of good moral character; and (3) of registration. First examination, April, 1880; final, June, 1880.

N.B.—It is required that one of the four years of professional education shall be spent in attendance at the College of Medicine, Newcastle-upon-Tyne. During the year so spent the candidate must attend at least two courses of lectures in the winter session and two in the summer session, together with the class and test examinations held in connexion with those classes, and must also attend hospital practice and clinical lectures at the Infirmary during the same period. Candidates may fulfil this portion of the curriculum at any period before they present themselves for the final examination for the degree, but are strongly recommended to do so previously to the first examination. They are not required to reside at Durham. The other three years of the curriculum may be spent either at Newcastle-upon-Tyne, or at one or more of the schools recognised by the licensing bodies named in Schedule (A) of the Medical Act, 1858.

Candidates who are already qualified by other of the licensing bodies are required to attend for one winter and one summer session at the College of Medicine, Newcastle-upon-Tyne, in the manner indicated in the preceding paragraph.

For the Degree of Master in Surgery the regulations are the same as those for the degree of Bachelor of Medicine, but the final examination is directed more particularly to Surgery.

For the Degree of Doctor of Medicine.—Candidates must be not less than twenty-four years of age, must have obtained the degree of Bachelor of Medicine at least two years previously, and in the interim have been engaged in medical or surgical practice. Each candidate will be required to write an essay on some medical subject, based on original research or observation, selected by himself and approved by the Professor of Medicine, and to pass an examination thereon, and must be prepared to answer questions on the other subjects of his curriculum in so far as they are related to the subject of his essay.

Candidates for any of the above degrees must give at least twenty-eight days' notice to the Registrar of the College, sending at the same time the fee and the necessary certificates.

The Degree of Doctor of Medicine, for Medical Practitioners of Fifteen Years' Standing, without Residence.—The Warden and Senate of the University of Durham, with the view of affording to practitioners of fifteen years' standing an opportunity of obtaining the degree of Doctor of Medicine, have instituted a special examination, under the following regulations:—

1. That the candidate shall be registered by the General Council of Medical Education and Registration of the United Kingdom.

2. That the candidate shall have been in the active practice of his profession for fifteen years as a qualified practitioner.

3. That the candidate shall not be under forty years of age.

4. That the candidate shall produce a certificate of moral character from three registered members of the medical profession.

5. That if the candidate shall not have passed, previous to his professional examination (in virtue of which he has been placed on the Register), an examination in Arts, he shall be required to pass an examination in Classics and Mathematics. The subjects for this examination shall be as follows:—*a.* An

(e) This fee will continue to be £10 to all such as, having taken their M.B. degree under the former regulations, shall not have paid the fee of £5 at the Preliminary Scientific Examination.

English essay. (A short essay on some subject to be specified at the time of the examination.) *b.* Arithmetic. *c.* Euclid—Books I. and II. *d.* Latin—Translation from Virgil, *Æneid*, Books I. and II., together with grammatical questions. *e.* One of the following subjects:—(i.) Greek—Translation from Xenophon's *Memorabilia*, Books I. and II., with grammatical questions. (ii.) French—Translation from Voltaire's "Charles XII.," with grammatical questions. (iii.) German—Translation from Goethe's "Dichtung und Wahrheit," Book I., with grammatical questions. (iv.) Elements of Mechanics, Pneumatics, and Hydrostatics. (v.) Some treatise on Moral, Political, or Metaphysical Philosophy.

6. That if the candidate shall have passed, previous to his professional examination (in virtue of which he has been placed on the Register), a preliminary examination, he shall be required to translate into English passages in any of the parts specified below of any one of the Latin authors mentioned—Cæsar, "De Bello Gallico," first three books; Virgil, first three books of the *Æneid*; Celsus, first three books. (a) The candidate shall have an opportunity of showing proficiency in Greek, Moral Philosophy, or some modern Language. (b)

7. That the candidate shall be required to pass an examination in the following subjects:—*a.* Principles and Practice of Medicine, including Psychological Medicine and Hygiene. *b.* Principles and Practice of Surgery. *c.* Midwifery, and Diseases peculiar to Women and Children. *d.* Pathology, medical and surgical. *e.* Anatomy, medical and surgical. *f.* Medical Jurisprudence and Toxicology. *g.* Therapeutics.

8. That the fee shall be £52 10s.

9. That if the candidate shall fail to satisfy the examiners the sum of £21 shall be retained; but that if he shall again offer himself for the examination the sum of £42 only shall then be required.

An examination, in accordance with the above regulations, will commence on June 14, 1880, in the College of Medicine, Newcastle-upon-Tyne. Gentlemen intending to offer themselves as candidates are requested to forward their names to Dr. Luke Armstrong, Registrar of the University of Durham College of Medicine, Clayton-street West, Newcastle-upon-Tyne, on or before May 1, 1880, together with the fee and the before-mentioned certificates.

CERTIFICATE OF PROFICIENCY IN SANITARY SCIENCE.

State Medicine.—The Warden and Senate of the University of Durham, in recognition of the importance that medical officers of health, or those seeking appointments as such, should possess a proof of their special acquirements, have instituted examinations in State Medicine, by which the successful candidates will be entitled to receive a certificate of proficiency in Sanitary Science.

FEES.

For registration examination, £1; extraordinary registration examination, £2; registration, 5s.; public examination in Medicine or in Surgery, each £5; a Licence in Medicine, £3; a Licence in Surgery, £3; a degree of Master in Surgery, £6; a degree of Bachelor in Medicine, £6; a degree of Doctor in Medicine £6, and for practitioners of fifteen years' standing, £52 10s.; a certificate in Sanitary Science, £5 5s., for Medical Officers of Health, £10 10s.

The Registrar or Secretary will be happy to give any information required. Applications with regard to examinations should be made to the Registrar, Dr. Luke Armstrong, Clayton-street West, Newcastle-on-Tyne; all others to the Secretary, Mr. Henry E. Armstrong, 6, Wentworth-place, Newcastle-on-Tyne.

5. UNIVERSITY OF ST. ANDREWS.

ORDINARY DEGREES.

The degrees in Medicine granted by the University of St. Andrews are those of Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.).

The preliminary examination and professional curriculum and examinations for these degrees are generally the same as those of the Universities of Edinburgh, Aberdeen, and Glasgow. The following regulations, however, for candidates for the degrees of Bachelor of Medicine and Master in Surgery present some difference:—

(a) The candidate may choose for himself any one of the three above-named authors on whose works to be examined.

(b) For these subjects no extra marks are awarded.

No one shall be received as a candidate for the degree of Bachelor of Medicine or Master in Surgery unless two years at least of his four years of medical and surgical study shall have been in one or more of the following universities and colleges, viz.:—The University of St. Andrews; the University of Glasgow; the University of Aberdeen; the University of Edinburgh; the University of Oxford; the University of Cambridge; Trinity College, Dublin; Queen's College, Belfast; Queen's College, Cork; and Queen's College, Galway.

The remaining years of medical and surgical study may be either in one or more of the universities and colleges above specified, or in the hospital schools of London, or in the School of the College of Surgeons in Dublin, or under such private teachers of medicine as may from time to time receive recognition from the University Court.

Attendance on the lectures of any private teacher in Edinburgh, Glasgow, or Aberdeen shall not be reckoned for graduation in St. Andrews if the fee for such lectures be of less amount than is charged for the like course of lectures in the University of Edinburgh, of Glasgow, or of Aberdeen, according as the teacher lectures in Edinburgh, Glasgow, or Aberdeen.

Fees for Graduation.—For the degree of Bachelor of Medicine £5 5s. in respect of each of the three divisions of the examination on professional subjects; and if the candidate desires to be admitted to the degree of Bachelor of Medicine only, he shall not, on admission thereto, be required to pay any further fee in addition to the £15 15s. so paid by him; but if he desires to be admitted to the degree of Master in Surgery also, he shall, on being admitted to such degree pay a further fee of £5 5s.; and every candidate for the degree of Doctor of Medicine, who has previously obtained the degree of Bachelor of Medicine, shall pay, in addition to the fees paid by him as a candidate for the degree of Bachelor of Medicine, a fee of £5 5s., exclusive of any stamp duty which may for the time be exigible.

SPECIAL DEGREES.

The degree of Doctor of Medicine may be conferred by the University of St. Andrews on any registered medical practitioner above the age of forty years, whose professional position and experience are such as, in the estimation of the University, entitle him to that degree, and who shall, on examination, satisfy the medical examiners of the sufficiency of his professional knowledge; provided always, that degrees shall not be conferred under this section to a greater number than ten in any one year.

Regulations as to Special Degrees.—As regards registered medical practitioners above the age of forty years, the examinations are held in the United College of St. Salvator and St. Leonard, annually, in April. The graduation fee is £52 10s. Candidates must lodge with the Dean of the Medical Faculty the following certificates, along with application for admission to examination:—1. A certificate of age, being a baptismal certificate, or an affidavit of age. 2. Holograph certificates from at least three medical men of acknowledged reputation in the profession, or in the medical schools, recommending the candidate to the Senatus for the degree of M.D., and testifying to his professional position and skill. As only ten can graduate in each year, candidates are selected whose service and certificates seem, to the Medical Faculty, to present the highest professional claims; but where these seem equal, preference is given to priority of application and to age. 3. Candidates, when notified for examination, will remit a portion of the graduation fee—viz., £10 10s. This sum shall be forfeited should the candidate fail to appear, or to graduate, at the time appointed. 4. A satisfactory examination, written and *viva voce*, must be passed in the following departments:—(1) *Materia Medica* and General Therapeutics, (2) Medical Jurisprudence, (3) Practice of Medicine and Pathology, (4) Surgery, (5) Midwifery and Diseases of Women and Children.

6. UNIVERSITY OF EDINBURGH.

This University grants degrees in Medicine, Surgery, and Science (including Health).

No one is admitted to the degree of Bachelor of Medicine or Master in Surgery who has not been engaged in medical and surgical study for four years—the medical session of each year, or *annus medicus*, being constituted by at least two courses of not less than one hundred lectures each, or by one such course, and two courses of not less than fifty lectures each; with the

exception of the Clinical Courses, in which lectures are to be given at least twice a week during the prescribed periods.

Every candidate for the degrees of M.B. and C.M. must give sufficient evidence by certificates—

1. That he has studied each of the following departments of medical science—viz., Anatomy, Chemistry, Materia Medica, Institutes of Medicine or Physiology, Practice of Medicine, Surgery, Midwifery and the Diseases peculiar to Women and Children (two courses of Midwifery of three months each being reckoned equivalent to a six months' course, provided different departments of Obstetric Medicine be taught in each of the courses), General Pathology (or, in schools where there is no such course, a three months' course of lectures on Morbid Anatomy, together with a supplemental course of Practice of Medicine or Clinical Medicine), during courses including not less than one hundred lectures; Practical Anatomy, a course of the same duration as those of not less than one hundred lectures above described; Practical Chemistry, three months; Practical Midwifery, three months at a midwifery hospital, or a certificate of attendance on six cases from a registered medical practitioner; Clinical Medicine, Clinical Surgery, courses of the same duration as those of not less than one hundred lectures above prescribed, or two courses of three months' lectures being given at least twice a week; Medical Jurisprudence, Botany, Natural History (including Zoology), during courses including not less than fifty lectures.

2. That he has attended for at least two years the medical and surgical practice of a general hospital which accommodates not fewer than eighty patients, and possesses a distinct staff of physicians and surgeons.

3. That he has been engaged, for at least six months, by apprenticeship or otherwise, in compounding and dispensing drugs at the laboratory of a hospital, dispensary, member of a surgical college or faculty, licentiate of the London or Dublin Society of Apothecaries, or a member of the Pharmaceutical Society of Great Britain.

4. That he has attended for at least six months, by apprenticeship or otherwise, the out-practice of a hospital, or the practice of a dispensary, physician, surgeon, or member of the London or Dublin Society of Apothecaries.

The studies of candidates for the degrees of Bachelor of Medicine and Master in Surgery are subject to the following regulations:—

1. One of the four years of medical and surgical study required must be in the University of Edinburgh.

2. Another of such four years of medical and surgical study must be either in the University of Edinburgh, or in some other university entitled to give the degree of Doctor of Medicine.

3. Attendance during at least six winter months on the medical or surgical practice of a general hospital which accommodates at least eighty patients, and, during the same period, on a course of Practical Anatomy, may be reckoned as one of such four years, and to that extent shall be held equivalent to one year's attendance on courses of lectures as above prescribed.

4. One year's attendance on the lectures of teachers of Medicine in the hospital schools of London, or in the school of the College of Surgeons in Dublin, or of such teachers of Medicine in Edinburgh or elsewhere as shall from time to time be recognised by the University Court, may be reckoned as one of such four years, and to that extent shall be held as attendance on courses of lectures as above prescribed.

5. Candidates may, to the extent of four of the departments of medical study required, attend in such year or years of their medical and surgical studies, as may be most convenient to them, the lectures of the extra-academical teachers of Medicine specified in the foregoing Sub-section 4.

6. All candidates not students of the University availing themselves of the permission to attend the lectures of extra-academical teachers in Edinburgh must, at the commencement of each year of such attendance, enrol their names in a book to be kept by the University for that purpose, paying a fee of the same amount as the matriculation fee paid by students of the University, and having, in respect of such payment, a right to the use of the library of the University.

Every candidate must deliver, before March 31 of the year in which he proposes to graduate, to the Dean of the Faculty of Medicine—

1. A declaration, in his own handwriting, that he has completed his twenty-first year (or that he will have done so on or before the day of graduation), and that he will not be, on the day of graduation, under articles of apprenticeship to any surgeon or other master.

2. A statement of his studies, as well in Literature and Philosophy as in Medicine, accompanied with proper certificates.

Each candidate is examined, both in writing and *viva voce*—first, on Chemistry, Botany, and Natural History; secondly, on Anatomy, Institutes of Medicine, Materia Medica (including Practical Pharmacy), and Pathology; thirdly, on Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; fourthly, clinically on Medicine and on Surgery in a Hospital. The examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, Natural History, Materia Medica, and Pathology are conducted, as far as possible, by demonstrations of objects placed before the candidates.

The degree of Doctor of Medicine may be conferred on any candidate who has obtained the degree of Bachelor of Medicine, and is of the age of twenty-four years, and produces a certificate of having been engaged, subsequently to his having received the degree of Bachelor of Medicine, for at least two years in attendance on a hospital, or in the Military or Naval Medical Services, or in medical and surgical practice: provided always that the degree of Doctor of Medicine shall not be conferred on any person, unless he be a graduate of Arts in one of the universities of England, Scotland, or Ireland, or of such other universities as are above specified, or unless he

shall, before or at the time of his obtaining the degree of Bachelor of Medicine, or thereafter, have passed a satisfactory examination in Greek, and in Logic or Moral Philosophy, and in one at least of the following subjects—namely, French, German, higher Mathematics, and Natural Philosophy; and provided also that the candidate for the degree of Doctor of Medicine shall submit to the Medical Faculty a thesis, certified by him to have been composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the professional examinations for the degree of Bachelor of Medicine, which he may have made a subject of study after having received that degree. The candidate must lodge his thesis with the Dean on or before April 30 of the year in which he proposes to graduate. No thesis will be approved by the Medical Faculty which does not contain either the results of original observations in Practical Medicine, Surgery, Midwifery, or some of the sciences embraced in the curriculum for the Bachelor's degree; or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted, so that due verification may be facilitated.

Candidates, settled for a period of years in foreign parts, who have complied with all the regulations for the degree of M.D. (under the new statutes), but who cannot appear personally to receive the degree, may, on satisfying the Senatus to that effect, by production of sufficient official testimonials, have the degree conferred on them in absence.

NOTICES TO CANDIDATES FOR GRADUATION IN MEDICINE.

1. An *annus medicus* is constituted by at least two winter courses of one hundred lectures each, or by one such course, and two summer courses of fifty lectures each, all being duly certified.

2. Four *anni medici* are required for graduates in Medicine. Two at least of these years must be passed at a university which grants degrees in Medicine, one of the two being at Edinburgh.

3. One or two of the *anni medici* may be taken at qualified extra-academical schools, in the manner stated in the succeeding paragraph:

4. In University College, in King's College, in the hospital schools of London, in the extra-academical School of Edinburgh, in the School of the College of Surgeons of Dublin, and in certain medical schools where at least two lecturers have been qualified by the University Court, a candidate may make two *anni medici*—one of which must be constituted by hospital attendance and Practical Anatomy, and the other by at least two courses of one hundred lectures, or one such course, and two courses of fifty lectures. The classes at these schools only qualify to the extent of four, and one of the four must be Practical Anatomy.

5. In provincial schools where there are no lecturers qualified by the University Court, a candidate can make one *annus medicus* only, and this is constituted by attendance on a qualified hospital, along with a course of Practical Anatomy.

The Fees are—For the degree of M.B., three Examinations, £5 5s. each, £15 15s.; for the degree of C.M., £5 5s. additional; for the degree of M.D., £5 5s. additional to that for M.B., exclusive of £10 Government stamp.

The fees for C.M. and M.D. are required to be paid on or before July 15. Note.—Total fees and stamp for graduating as M.D. only, by regulations, for students commencing before February, 1861, £25.

N.B.—The above fees include all charges for the diplomas.

RIGHTS OF THE MEDICAL GRADUATES OF SCOTLAND ACCORDING TO THE MEDICAL ACT.

Before the passing of the Medical Act of 1858, the degree of Doctor of Medicine granted by the universities of Scotland (as the possessor underwent a complete education and examination in all departments of Physic and Surgery), qualified the graduate to practise every branch of the medical profession throughout Scotland. One principal purpose of the Medical Act was to extend local rights of practice over the whole of her Majesty's dominions. But according to the hitherto accepted reading of a dubious clause in the Act, no one can practise both Medicine and Surgery without possessing two distinct diplomas—one for Medicine, and another for Surgery. The universities were thus compelled, in justice to their graduates, to give them the additional title of Master in Surgery, not as implying any additional study or examination, but as declaring more distinctly their qualifications, and to permit registration as regularly qualified practitioners in the whole field of their professional education. The Secretary for War some time ago issued an order that candidates for admission into the Medical Service of the Army should obtain their qualifications in Physic and Surgery from two different sources; the effect of which would have been to prevent any one university from qualifying for this purpose. The Scottish Universities' Commissioners, recognising the serious evils of such a system, followed up a remonstrance which had been offered on the part of the University of Edinburgh, and obtained the rescinding of all restrictions in the source of qualification. Consequently, any single university in Scotland

can now qualify candidates for the military service as well as for any other public medical service in the country.

The Medical Faculty have resolved that the written and oral examinations on Chemistry, Botany, and Natural History, in October, 1879, and April, 1880, shall be restricted in the following manner:—

1. *Chemistry*.—Classification of elements; general laws of chemical combination and action, as illustrated in the simpler compounds of the more commonly occurring elements; symbolic notation. Preparation and properties of the non-metallic elements and their chief compounds. Classification and general properties of acids, bases, and salts—electrolysis of salts. Oxygen, ozone, oxidation, and reduction. Hydrogen, water, peroxide of hydrogen, chlorine, hydrochloric acid, hypochlorites, chlorates, perchlorates, bromine, hydrobromic acid, bromates, iodine, hydriodic acid, iodates, periodates, fluorine, hydrofluoric acid. Sulphur, sulphuretted hydrogen, oxides of sulphur, sulphites, sulphates, chlorides of sulphur, chloride of sulphuryl, nitrogen, the atmosphere, oxides of nitrogen, nitrates, nitrites, ammonia, ammonia salts, phosphorus, chlorides and oxychloride of phosphorus, oxides of phosphorus, phosphates, phosphites, hypophosphites, boron, boracic acid, borates, fluoride of boron, silicon, silica, silicates, chloride of silicon, fluoride of silicon, hydrofluosilicic acid. Carbon, oxides of carbon, carbonates, phosgene. Classification of carbon compounds. Marsh gas and its homologues. Methylic and ethylic alcohols and ethers. Methylamine, dimethylamine, trimethylamine, tetramethylammonium. Formic and acetic acids, aldehyde, acetone, olefiant gas, oxalic acid, lactic acid, tartaric acid, citric acid. Fats and oils, saponification, glycerine, cellulose, sugars, starch. Products of distillation of wood and of coal. Coal-gas, coal-tar, benzol, benzoic acid, oil of bitter almonds, hydrocyanic acid, cyanides, cyanates, sulphocyanates, urea. The following metals, their oxides, sulphides, and more important salts:—Potassium, sodium, magnesium, calcium, strontium, barium, aluminium, zinc, cadmium, manganese, chromium, iron, nickel, cobalt, bismuth, lead, copper, mercury, silver, tin, gold, platinum, antimony, arsenic. Simple qualitative analysis. [*The Examination in analysis is conducted practically.*]

2. *Botany*.—The structure and functions of plants, vegetable organography and physiology, the principles of classification, classes, sub-classes, and sections of the natural system. (See Balfour's "Class-book," or his "Manual of Botany.") Botanical characters to be demonstrated on conspicuous specimens of the following natural orders:—Ranunculaceæ, Papaveraceæ, Cruciferae, Caryophyllaceæ, Malvaceæ, Leguminosæ, Rosaceæ, Onagraceæ, Umbelliferae, Dipsacaceæ, Compositæ, Campanulaceæ (including Lobeliaceæ), Boraginaceæ, Labiatae, Scrophulariaceæ, Solanaceæ, Primulaceæ, Euphorbiaceæ, Salicaceæ, Corylaceæ, Coniferae, Cycadaceæ, Orchidaceæ, Amaryllidaceæ, Liliaceæ, Palmæ, Cyperaceæ, Gramineæ, Filices, Musci. The student will be examined practically on the microscopical structure of plants, and he will be required to describe the organs of fresh plants put into his hands.

3. *Zoology and Comparative Anatomy*.—The general characters of the animal kingdom, and the general structure and organisation of animals; principles of zoological classification; general plan of structure, and physiology of the types: Protozoa, Porifera, Coelenterata, Echinodermata, Vermes, Articulata, Mollusca, and Vertebrata. The special distinctive characters of the following groups, with a knowledge of familiar examples of each, and the conditions and circumstances under which they occur (candidates will be required to refer any specimens shown to them by the examiner for this purpose to their respective groups):—Rhizopoda, Infusoria; Porifera silicea, calcarea; Zoantharia, Alcyonaria, Hydrozoa, Echinidea, Asteroidea, Crinoidea; Platyelmlia, Nematelmlia, Annelida; Crustacea, Arachnida, Myriapoda, Insecta; Lamellibranchiata, Gastropoda, Cephalopoda; Pisces, Amphibia, Reptilia, Aves, Mammalia.

ARRANGEMENTS FOR THE PRELIMINARY EXAMINATIONS IN GENERAL EDUCATION.

The preliminary examinations in general education are held in the Upper Library Hall, and students matriculated for the academic year are admitted on presenting their matriculation tickets at the door. Students matriculated for the summer only and non-matriculated students pay a fee of 10s. each, and are admitted on showing their receipts. Those who pay the fee in March will be admitted to the examination in October without further payment. Payment in October does not exempt from payment in March. The academic year is reckoned from November 1 to November 1.

Candidates are required to enter their names *in full*, and at the same time to mention the subject or subjects in which they offer themselves for examination. They are also required to state whether they have appeared for any preliminary or professional examinations at this University.

Any candidate who cannot appear personally at the time fixed to enter his name and pay the fee, must complete the schedule required for the purpose, and transmit it with an order for the fee to the Clerk of the University.

In conformity with Section I. of the Statutes, examinations on the preliminary branches of extra-professional education will take place on Tuesday, Wednesday, Thursday, and Friday, October 7, 8, 9, and 10, 1879; and on Tuesday, Wednesday, Thursday, and Friday, March 9, 10, 11, and 12, 1880.

Examination on Tuesdays.—Arithmetic, 9 to 11 a.m.; Mathematics (Euclid, Algebra), 11.30 a.m. to 1.30 p.m.; and Mechanics, 2 to 4 p.m.

Examination on Wednesdays.—English, 9 to 11 a.m.; Natural Philosophy, 11.30 a.m. to 1.30 p.m.; Higher Mathematics, 2 to 4 p.m.

Examination on Thursdays.—Latin, 9 to 11 a.m.; Logic, 11.30 a.m. to 1.30 p.m.; Moral Philosophy, 2 to 4 p.m.

Examination on Fridays.—Greek, 9 to 11 a.m.; French, 11.30 a.m. to 1.30 p.m.; German, 2 to 4 p.m.

7. UNIVERSITY OF GLASGOW.—FACULTY OF MEDICINE.

Three medical degrees are conferred by this University, viz.:—Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.); all of which are recognised by the Medical Act as qualifying for practice throughout the British dominions.

The degree of Bachelor of Medicine may be obtained by candidates of the age of twenty-one years who have complied with the regulations as to education and examination. The degree of Master in Surgery is only conferred upon those who at the same time obtain the Bachelorship of Medicine; and the degree of Doctor of Medicine may be conferred on candidates of not less than twenty-four years of age who have obtained the Bachelorship two or more years previously, and have fulfilled certain conditions to be afterwards mentioned.

The medical curriculum is as nearly as possible the same as that in the University of Edinburgh.

By an order of her Majesty in Council, dated August 13, 1877, the following are the arrangements for Professional Examinations:—

1. Every candidate for the degrees of Bachelor of Medicine and Master in Surgery shall be examined both in writing and *viva voce*—first on Chemistry, Botany, and Natural History; second, on Anatomy and Physiology; third, on Regional Anatomy, Materia Medica and Pharmacy, and Pathology; and fourth, on Surgery, Clinical Surgery, Medicine, Clinical Medicine, Therapeutics, Midwifery, and Medical Jurisprudence. The Examination in Chemistry shall include Practical Chemistry; and the Examinations in Anatomy and Physiology shall include Practical Anatomy, Histology, and Practical Physiology; and the Examination in Surgery shall include Operative Surgery.

2. Students may appear for examination in the first of the foregoing divisions of subjects who have completed their attendance on the required courses during one winter and two summer sessions, or during one summer and two winter sessions.

3. Students who have passed the first examination may appear for examination in the second division of subjects after having completed their attendance on the requisite courses (including those of the subjects of examination), and after the lapse of two winter and three summer sessions, or of three winter and two summer sessions, from the time of the commencement of their studies.

4. Students who have passed the two previous examinations may appear for examination in the third division of subjects at any of the terms fixed for examinations by the Senate, after the conclusion of the third winter's session of attendance upon medical classes (including those of the required subjects).

5. Students who have passed the examinations in the subjects of the three previous divisions may appear for examination in the subjects of the fourth division at the first term for the final examination after the conclusion of their curriculum of study.

DEGREE OF DOCTOR OF MEDICINE.

The degree of Doctor of Medicine may be conferred on any candidate who shall produce evidence—*a*, that he is not less than twenty-four years of age; *b*, that he has obtained the Bachelorship two or more years previously; *c*, that he possesses a degree in Arts, or has, in addition to the preliminary examination in general education required for the Bachelorship, also passed before obtaining the Bachelorship, or within three years thereafter, an examination in Greek, and Logic or Moral Philosophy, together with any one of the other optional subjects included in the second part of the subjects of general education; *d*, that he has been engaged in professional study or avocation for two years after having obtained the Bachelorship. He must also lodge an inaugural dissertation, certified by him to have been composed by himself, on any subject included in the branches of knowledge embraced in the professional curriculum. Theses for the degree of M.D. must be lodged with Mr. Moir, the Assistant Clerk of Senate, on or before March 20, June 20, or October 20.

No thesis will be approved unless it gives evidence of original observation, or, if it deals with the researches of others, gives a full statement of the literature of the question, with accurate references and critical investigation of the views or facts cited; mere compilations will in no case be accepted.

The fees for degrees are the same as in Edinburgh.

The Examinations in General Education take place twice yearly—viz., in October and March. The examinations for session 1879-80 will be held on Wednesday, Thursday, and Friday, October 8, 9, and 10, 1879, and Thursday, Friday, and Saturday, April 1, 2, and 3, 1880. Those who intend to present themselves for either of these examinations are required to send in their names to the Assistant Clerk of Senate on or before September 24 or March 17. A fee of 10s. must be paid on entering their names by those who are not matriculated students—which fee will be returned on matriculation within the year.

The Professional Examinations are held at the following periods—viz.: The first in October (October 14, 1879) and April (April 9, 1880); the second in October (October 15, 1879) and April (April 10, 1880); the third in October (October 16, 1879); and the fourth in June and July, 1880.

8. UNIVERSITY OF ABERDEEN.

The following are the degrees in Medicine granted by this University—namely, Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.).

The preliminary examination and professional curriculum, and examination for the degrees of M.B., C.M., and M.D., being in conformity with the Ordinances of the Scotch Universities Commissioners, are nearly the same as those of the Universities of Edinburgh, Glasgow, and St. Andrews.

The studies of candidates for the degrees of Bachelor of Medicine and Master in Surgery are subject to these regulations:—

One at least of the four years of medical and surgical study must be in the University of Aberdeen.

Another of such four years must be either in this University or in some other University entitled to give the degree of Doctor of Medicine.

FEES FOR GRADUATION.

1. Each candidate for the degree of M.B. shall pay a fee of £5 5s. in respect of each of the three professional examinations.

2. If the candidate desires to be admitted to the degree of Bachelor of Medicine only, he shall not, on admission thereto, be required to pay any further fee in addition to the £15 15s. so paid by him; but if he desires to be admitted to the degree of Master in Surgery also, he shall, on being admitted to such degree, pay a further fee of £5 5s.

3. And every candidate for the degree of Doctor of Medicine shall pay, in addition to the fees paid by him for the degree of Bachelor of Medicine, a fee of £5 5s., exclusive of any stamp duty which may for the time be exigible.

EXEMPTION FROM THE FOREGOING REGULATIONS.

Students who shall have begun their medical studies before the first Tuesday of November, 1861, are entitled to appear for examination for the degree of M.D. after four years' study, one of which must have been at the University of Aberdeen.

9. UNIVERSITY OF DUBLIN.

DEGREES AND LICENCES IN MEDICINE AND SURGERY.

The degrees and licences in Medicine and Surgery granted by the University are—1. Bachelor in Medicine. 2. Doctor in Medicine. 3. Master in Surgery. 4. Bachelor in Surgery. 5. Master in Midwifery.

1. *Bachelor in Medicine*.—A candidate for the degree of Bachelor in Medicine must be a graduate in Arts, and may obtain the degree of Bachelor in Medicine at the same commencement as that at which he receives his degree of B.A., or at any subsequent commencement, provided the requisite medical education shall have been completed, and the necessary examinations passed. The medical education of a Bachelor in Medicine is of four years' duration, and comprises attendance on the following course of lectures, viz.:—Courses of five months' duration (November to April)—Anatomy, Practical Anatomy (with Dissections), Surgery, Chemistry, Institutes of Medicine, Practice of Medicine, Midwifery. Courses of three months' duration (April to July)—Botany, Practical Chemistry, Medical Jurisprudence, Materia Medica and Pharmacy, Comparative Anatomy, Practical Physiology.

Hospital Attendance.—1. Three courses of nine months' attendance on the clinical lectures of Sir Patrick Dun's or other metropolitan hospital recognised by the Board of Trinity College. 2. A certificate of personal attendance on fever cases, with names and dates of cases.

The following hospitals, in addition to Sir Patrick Dun's Hospital, are recognised by the Board:—Meath Hospital, House of Industry Hospitals, Dr. Steevens' Hospital, Jervis-street Infirmary, City of Dublin Hospital, Mercer's Hospital, St. Vincent's Hospital, Adelaide Hospital, Mater Misericordiae Hospital, St. Mark's Ophthalmic Hospital, the National Eye and Ear Infirmary.

Students who shall have diligently attended the practice of a recognised county infirmary for two years previous to the commencement of their metropolitan medical studies are allowed to count those two years as equivalent to one year spent in a recognised metropolitan hospital.

N.B.—The recognition of these schools and hospitals is conditional on their students being furnished with *bonâ fide* certificates of an amount of regular attendance equivalent to that required by the University—viz., three-fourths of the entire number of lectures in each course.

Practical Midwifery.—Six months' instruction in practical Midwifery, including clinical lectures. Certificates of practical Midwifery are received from (1) the Rotundo Hospital, (2) the Coombe Hospital, (3) Sir Patrick Dun's Hospital Maternity, and (4) Dr. Steevens' Hospital Maternity.

The schools recognised are—1. The School of the Royal College of Surgeons in Ireland. 2. The Carmichael School. 3. The School of Dr. Steevens' Hospital. 4. The School of the Catholic University.

An *annus medicus*, or a year's attendance in the School of Physic, may be kept in three ways:—1. By attending at least two, or not more than three, of the foregoing courses which are of six months' duration. 2. By attending one course of six months' and two of three months' duration. 3. By nine months' attendance on Sir Patrick Dun's Hospital and clinical lectures; together with one course of six months', or, in lieu thereof, two courses of three months' duration.

The fee for nine months' attendance at Sir Patrick Dun's Hospital is £12 12s. The fee for each course of lectures is £3 3s. The fee for the *Liceat ad Examinandum* is £5. The fee for the degree of M.B. is £11.

The candidate for the M.B. examination must have previously passed the previous medical examination in all the subjects; and have lodged with the Medical Registrar, on a certain day to be duly advertised before the examination, certificates of attendance upon all the courses of study prescribed in the preceding curriculum. Candidates are then required to pass a final examination in the following subjects:—Physiological Anatomy, Practice of Medicine, Surgery, Midwifery, Medical Jurisprudence, Institutes of Medicine (Pathology and Hygiene). The fee for the *Liceat ad Examinandum* is £5. The fee for the degree of M.B. is £11.

2. *Doctor in Medicine*.—A Doctor in Medicine must be M.B. of at least three years' standing, or have been qualified to take the degree of M.B. for three years, and must perform exercises for the degree before the Regius Professor of Physic, in accordance with the rules and statutes of the University. Total amount of fees for this degree, £13.

3. *Master in Surgery*.—A Master in Surgery must be a Bachelor in Surgery of three years' standing, or have been qualified to take the degree of Bachelor in Surgery for three years; and must read a thesis publicly before the Regius Professor of Surgery, or undergo an examination before the Regius Professor, according to Regulations to be approved by the Provost and Senior Fellows. Fee for the degree of Master in Surgery, £11.

4. *Bachelor in Surgery*.—A Bachelor in Surgery must be a Bachelor in Arts, and have spent four years in the study of Surgery and Anatomy. He must also have passed the M.B. examination, before presenting himself at the B.Ch. examination, having previously completed the prescribed curriculum of study. The curriculum comprises the following, in addition to the complete course for the degree of Bachelor in Medicine:—Theoretical and Operative Surgery, one course; Dissections, two courses; Ophthalmic Surgery, one course. Candidates are required to perform surgical operations on the dead subject, and will also be examined in Bandaging and Minor Surgery, and in Surgical Pathology. Candidates for the degree of Bachelor in Surgery, who have already passed the examination for the degree of Bachelor in Medicine, will

be examined in Anatomy and Surgery only. Fee for the *Liceat ad Examinandum*, £5. Fee for the degree of Bachelor in Surgery, £5.

5. *Master in Obstetric Science*.—A Master in Obstetric Science must have passed the M.B. and B.Ch. examinations, and produce certificates of having completed the following curriculum:—1. One winter course in Midwifery. 2. Six months' practice in a recognised lying-in hospital or maternity. 3. A summer course in Obstetric Medicine and Surgery. 4. Two months' practice in the Cow-pock Institution. Existing Graduates in Medicine, of the standing of M.D., are entitled to present themselves for examination, without complying with Regulations 3 and 4. Fee for the degree of Master in Obstetric Science, £5.

UNIVERSITY LICENCES.

Candidates for the licences in Medicine, Surgery, or Midwifery must be matriculated in Medicine, and must have completed four years in medical studies. Candidates for the licences in Medicine, Surgery, or Midwifery must pass the following examination in Arts, unless they be students in the Senior Freshman or some higher class:—Homer's *Iliad*, Books I., II. (omitting catalogue of ships), III.; Lucian's *Dialogues* (Walker's edition); Xenophon's *Anabasis*, Books I., II., III.; Virgil, *Æneid*, Books I., II., III.; Sallust; Horace, *Satires*; Latin Prose Composition; English Prose Composition; English History; Modern Geography; Arithmetic; Algebra to the end of Simple Equations; Euclid, Books I., II., III. Students who have passed the foregoing examination will be required to pay the admission fee of £15.

1. *Licentiate in Medicine*.—The medical course and examination necessary for the licence in Medicine are the same as for the degree of M.B., with the exception that any general hospital approved by the Board of Trinity College may be substituted for Sir Patrick Dun's. Candidates who are already Licentiates in Surgery of the Royal College of Surgeons in Ireland, or Members of the College of Surgeons of England, on passing the foregoing Arts examination, will be admitted to examination for the licence in Medicine. Fee for the *Liceat ad Examinandum*, £5. Fee for the licence in Medicine, £5.

2. *Licentiate in Surgery*.—The surgical course and examination necessary for the licence in Surgery are the same as for the degree of Bachelor in Surgery. Fee for the *Liceat ad Examinandum*, £5. Fee for the licence in Surgery, £5.

3. *Licence in Obstetric Science*.—The course and examination for the licence in Obstetric Science are the same as for the degree in Obstetric Science. Fee for the licence in Obstetric Science, £5.

* 10. QUEEN'S UNIVERSITY IN IRELAND.

[We have still printed the regulations of this University, though abolished by Act of Parliament. What the effect of this Act as regards medical education will be is not yet known.]

This University confers the degrees of M.D. and M.Ch., and a diploma in Midwifery. Students who wish to obtain the degrees or diploma of the Queen's University must be matriculated students of one of the Queen's Colleges at Belfast, Cork, or Galway, and must pursue the courses of study prescribed by the Senate of the University.

Each candidate for the degree of Doctor in Medicine or Master in Surgery is required—1. To have passed in one of the Colleges of the Queen's University the entrance examination in Arts, and to have been admitted a matriculated student of the University. 2. To have attended in one of the Queen's Colleges lectures on one modern continental language for six months, and lectures on Natural Philosophy for six months. 3. To have also attended, in some one of the Queen's Colleges, at least two of the courses of lectures marked below with an asterisk. For the remainder of the courses, authenticated certificates will be received from the professors or lecturers in universities, colleges, or schools recognised by the Senate of the Queen's University in Ireland. 4. To pass the University examinations—the First and Second University examinations, and the degree examination. The curriculum extends over at least four years, and is divided into periods of at least two years each. Candidates are recommended to pass the matriculation examination prior to entering on the second period. It is recommended that the first period shall comprise attendance on the following courses of medical lectures:—*Chemistry; *Botany, with Herborisations for practical study, and Zoology; *Anatomy and Physiology; *Practical Anatomy; *Materia Medica and Pharmacy. And that the

second period shall comprise attendance on the following courses of medical lectures:—Anatomy and Physiology (second course), Practical Anatomy (second course), *Theory and Practice of Surgery, *Midwifery, *Theory and Practice of Medicine, *Medical Jurisprudence. In addition to the above courses of lectures, candidates shall have attended, during either the first or second period, a course of lectures on a modern continental language (in one of the colleges of the University), and Experimental Physics (in one of the colleges of the University). Also, during the first period—Practical Chemistry, (in a recognised laboratory), and medico-chirurgical hospital (recognised by the Senate) containing at least sixty beds, together with the clinical lectures therein delivered, at least two each week—a winter session of six months. And during the second period—Practical Midwifery, at a recognised midwifery hospital, with the clinical lectures therein delivered, for a period of three months, or of having attended a midwifery dispensary for the same period, or of having attended ten cases of labour under the superintendence of the medical officer of any hospital or dispensary where cases of labour are treated; medico-chirurgical hospital (recognised by the Senate) containing at least sixty beds, together with the clinical lectures therein delivered, eighteen months, including either three winter sessions of six months each, or two winter sessions of six months each, and two summer sessions of three months each. Medical examinations are held in June, and in September and October. The June examinations are pass examinations. Both honour and pass examinations are held in September. Each candidate for examination in June must forward to the Secretary, on or before June 1, notice of his intention to offer himself as a candidate, along with his certificates; and each candidate for examination in September must forward similar notice along with his certificates, before September 1.

(B.) BODIES GIVING LICENCES OR OTHER FORMS OF QUALIFICATION NOT BEING DEGREES IN MEDICINE.

1. THE ROYAL COLLEGE OF PHYSICIANS, LONDON.

In the Royal College of Physicians there are three grades—Fellows, Members, and Licentiates. Of these the first is purely honorary, and so in a certain sense is the second. The third is that taken by the student on leaving his studies, and is valuable as being at once a qualification to practise Medicine, Surgery, and Midwifery, and is recognised by the Poor-law Board as a qualification in Surgery as well as in Medicine.

The College will, under its charter, grant licences to practise Physic, including therein the practice of Medicine, Surgery, and Midwifery (which licences are not to extend to make the Licentiates Members of the Corporation), to persons who shall conform to the following by-laws:—

Every candidate for the College licence (except when otherwise provided by the by-laws) is required to produce satisfactory evidence to the following effect:—

1. Of having attained the age of twenty-one years.
2. Of moral character.
3. Of having passed, before the commencement of professional study, an examination in the subjects of general education recognised by the College.
4. Of having been registered as a medical student in the manner prescribed by the General Medical Council. ["After October, 1870, every candidate (not exempted from registration) is required to have been registered at least four years previously."]
 5. Of having been engaged in professional studies during four years, of which at least three winter sessions and two summer sessions shall have been passed at a recognised medical school or schools, and one winter session and two summer sessions in one or other of the following ways:—
 - a. Attending the practice of a hospital or other institution recognised by the College for that purpose.
 - b. Receiving instruction as the pupil of a legally qualified practitioner holding any public appointment which affords opportunities, satisfactory to the examiners, of imparting a practical knowledge of Medicine, Surgery, or Midwifery.
 - c. Attending lectures on any of the required subjects of professional study at a recognised place of instruction. Professional studies commenced before the candidate shall have passed an examination in the subjects of general education will not be recognised by the College.
 6. Of having attended, during three winter sessions and two summer sessions, the medical and surgical practice at a recognised hospital or hospitals; or of having discharged the duties of clinical clerk at a recognised hospital for a period of not less than three months; or of having performed the duties of dresser at a recognised hospital for a period of not less than three months; and of having been engaged during six months in the clinical study of Diseases peculiar to Women.
 7. Of having studied the following subjects:—Anatomy (with dissections) during two winter sessions; Physiology during two winter sessions;

Chemistry during six months; Practical Chemistry during three months; Materia Medica during three months; Practical Pharmacy during three months (by Practical Pharmacy is meant instruction in the laboratory of a registered medical practitioner, or of a member of the Pharmaceutical Society of Great Britain, or of a public hospital or dispensary recognised by the College); Botany during three months (this course of lectures may be attended prior to the commencement of professional studies; and any candidate producing satisfactory evidence that Botany formed one of the subjects of his preliminary examination will be exempt from attendance on this course); Morbid Anatomy during six months (this includes attendance and instruction in the post-mortem-room during the period of clinical study); Principles and Practice of Medicine during two winter sessions (it is required that the Principles of Public Health should be comprised in this course of lectures, or in the course of lectures on Forensic Medicine: the attendance on these lectures must not commence earlier than the second winter session at a recognised medical school); Principles and Practice of Surgery during two winter sessions (the attendance on these lectures must not commence earlier than the second winter session at a recognised medical school); Clinical Medicine during two winter sessions and two summer sessions (the attendance on these lectures must not commence until after the first winter session at a recognised medical school); Clinical Surgery during two winter sessions and two summer sessions (the attendance on these lectures must not commence until after the first winter session at a recognised medical school: by Clinical Medicine and Clinical Surgery are meant special study and instruction at the bedside, with lectures on cases); Midwifery and the Diseases peculiar to Women during three months (certificates must also be produced of attendance on not less than twenty labours, and of instruction and proficiency in vaccination); Forensic Medicine during three months.

8. Of having passed the professional examinations.

Any candidate who shall produce satisfactory evidence of having passed an examination on Anatomy and Physiology, conducted by any of the bodies named in Schedule (A) to the Medical Act, and recognised by the College as requiring a course of study and an examination satisfactory to the College, shall be exempt from re-examination on the subjects of the primary examination. Any candidate who shall have obtained a degree in Medicine at a university recognised by the College, after a course of study and an examination satisfactory to the College, shall be exempt from re-examination on the subjects of the primary examination. Any candidate who shall have obtained a degree in Surgery at a university in the United Kingdom, after a course of study and an examination satisfactory to the College, shall be exempt from re-examination on Surgical Anatomy and on the Principles and Practice of Surgery. Any candidate who shall have passed the examination on Surgery conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, after a course of study and an examination satisfactory to the College, shall be exempt from re-examination on Surgical Anatomy and on the Principles and Practice of Surgery. Any candidate being a "registered medical practitioner," whose qualification or qualifications shall have been obtained before January 1, 1861, having been with the consent of the College admitted a candidate for the licence, will be examined on the Principles and Practice of Medicine, Surgery, and Midwifery; but he will be exempted from such other parts of the professional examinations as his qualifications may seem to the examiners to render in his case unnecessary.

Licentiates of this College shall not compound or dispense medicines except for patients under their own care.

BY-LAWS AND REGULATIONS RELATING TO THE EXAMINATION FOR THE LICENCE.

Every candidate for the College licence, before he is admitted to examination, will be required to sign a declaration, stating that he has not been rejected within three months by any of the examining boards included in Schedule (A) to the Medical Act.

Any candidate who shall be rejected at the first examination will not be readmitted to examination until after the lapse of three months, and will be required to produce a certificate of the performance of dissections, or other professional study satisfactory to the examiners, during that time.

Any candidate who shall be rejected at the second or pass examination will not be readmitted to examination until after the lapse of six months, and will be required to produce a certificate of attendance on the practice of a recognised hospital, and also of attendance on clinical lectures, or other professional study satisfactory to the examiners, during that time.

The fee for the College licence is £15 15s., of which £5 5s. are to be paid on admission to the first examination, which fee will not be returned to any candidate rejected at this examination, but will be allowed in the fee for the licence, and he will be admitted to one subsequent first examination without the payment of an additional fee.

Any candidate who shall be rejected at the second or pass

examination will have the fee paid on admission to this examination returned to him, less £3 3s.

ADDITIONAL REGULATIONS, JANUARY 31, 1878.

For the Licence.—I. Any candidate who shall produce satisfactory evidence of having passed an examination on Chemistry and Materia Medica, required for a degree in Medicine at a university in the United Kingdom, in India, or in a British colony, will be exempted from re-examination on those subjects. II. Any candidate who shall have obtained a qualification which entitles him to practise Medicine or Surgery in the country where such qualification has been conferred, after a course of study and an examination equivalent to those required by the Regulations of the College, shall, on production of satisfactory evidence as to age, moral character, and proficiency in vaccination, be admissible to the pass examination, and shall be exempt from re-examination on such subjects as shall in each case be considered by the Censors' Board to be unnecessary.

For Membership.—I. Any candidate who shall produce satisfactory evidence of having passed an examination on Chemistry and Materia Medica, required for a degree in Medicine at a university in the United Kingdom, in India, or in a British colony, will be exempted from re-examination on those subjects. II. Any candidate who has already obtained the degree of Doctor or Bachelor of Medicine at a university in the United Kingdom, in India, or a British colony, or who shall have obtained a qualification entitling him to practise Medicine or Surgery in the country where such qualification has been conferred, wherein the courses of study and the examinations to be undergone previously to graduation shall have been adjudged by the Censors' Board to be satisfactory, shall be exempt (if the Censors shall think fit) from all or any parts of the examinations hereinbefore described, except such as relate to the third or pass examination. The nature and extent of this examination shall, in the case of each candidate, be determined by the Censors' Board. Every candidate for the membership will, however, be required to translate into English a passage from a Latin author, and he will have the opportunity of showing a knowledge of Greek, or of one or more of the modern European languages.

2. THE ROYAL COLLEGE OF SURGEONS, ENGLAND.

By far the most important qualification in this country is that of the Royal College of Surgeons of England, inasmuch as almost all English and many Scottish and Irish students become candidates for the Membership of that body. The College consists of two grades—Fellows and Members. The Fellowship is partly honorary, being obtained by the election of Members of a certain standing, but is now only obtainable by examination. The Membership is the qualification sought by students leaving their hospitals, hence the importance of the following regulations:—

I. Professional studies prior to the date at which the candidate shall have passed an examination in general knowledge are not recognised.

II. The following will be considered as the commencement of professional education:—

1. Attendance on the practice of a hospital or other public institution recognised by this College for that purpose.

2. Instruction as the pupil of a legally qualified surgeon holding the appointment of surgeon to a hospital, general dispensary, or union work-house, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council.

3. Attendance on lectures on Anatomy, Physiology, or Chemistry, by lecturers recognised by this College.

III. Candidates will be required to produce the following certificates, viz.:—

1. Of being twenty-one years of age.

2. Of having been engaged, subsequently to the date of passing the preliminary examination, during four years, or during a period extending over not less than four winter and four summer sessions, in the acquirement of professional knowledge.

3. Of having attended lectures on Anatomy during two winter sessions.

4. Of having performed Dissections during not less than two winter sessions.

5. Of having attended lectures on General Anatomy and Physiology during one winter session.

6. Of having attended a practical course of General Anatomy and Physiology during another winter or a summer session, consisting of not less than thirty meetings of the class.

Note A.—By the practical course referred to in Clause 6, it is meant that the learners themselves shall, individually, be engaged in the necessary experiments, manipulations, etc.; but it is not hereby intended that the learners shall perform vivisections.

7. Of having attended lectures on Surgery during one winter session.

8. Of having attended a course of Practical Surgery during a period occupying not less than six months prior or subsequent to the course required by the preceding Clause 7.

Note B.—The course of Practical Surgery referred to in Clause 8 is intended to embrace instruction in which each pupil shall be exercised in practical details, such as in the application of anatomical facts to surgery, on the living person, or on the dead body. The methods of proceeding and the manipulations necessary in order to detect the effects of diseases and accidents, on the living person, or on the dead body. The performance, where practicable, of the operations of surgery on the dead body. The use of surgical apparatus. The examination of diseased structures, as illustrated in the contents of a museum of morbid anatomy, and otherwise.

9. Of having attended one course of lectures on each of the following subjects, viz.:—Chemistry, Materia Medica, Medicine, Forensic Medicine, Midwifery (with practical instruction, and a certificate of having personally conducted not less than ten labours); Pathological Anatomy during not less than three months.

Note C.—The course of lectures on Chemistry included in Clause 9 will not be required in the case of a candidate who shall have passed a satisfactory examination in this subject in his preliminary examination.

10. Of having studied Practical Pharmacy during three months.

11. Of having attended a three months' course of Practical Chemistry (with manipulations), in its application to medical study.

12. Of instruction and proficiency in the practice of Vaccination.

Note D.—In the case of candidates who commenced their professional education on or after October 1, 1868, the certificate of instruction in Vaccination will only be received from recognised vaccine stations, or from recognised vaccine departments in medical schools or hospitals, or other public institutions, where the appointed teacher of vaccination is not liable to frequent change, and where ample means for study are provided by not less than such a number of cases (eight or ten on an average weekly) as may be found, after due inquiry, to be sufficient for this purpose at each place.

Note E.—The certificates of attendance on the several courses of lectures must include evidence that the student has attended the practical instructions and examinations of his teacher in each course.

13. Of having attended, at a recognised hospital or hospitals, the practice of Surgery during three winter(a) and two summer(b) sessions.

14. Of having been individually engaged, at least twice in each week, in the observation and examination of patients at a recognised hospital or hospitals, under the direction of a recognised teacher during not less than three months.

Note F.—It is intended that the candidate should receive the instruction required by Clause 14 at an early period of his attendance at the hospital.

15. Of having, subsequently to the first winter session of attendance on surgical hospital practice, attended, at a recognised hospital or hospitals, clinical lectures on Surgery during two winter and two summer sessions.

16. Of having been a dresser at a recognised hospital, or of having, subsequently to the completion of one year's professional education, taken charge of patients under the superintendence of a surgeon during not less than six months, at a hospital, general dispensary, or parochial or union infirmary recognised for this purpose, or in such other similar manner as, in the opinion of the Council, shall afford sufficient opportunity for the acquirement of Practical Surgery.

17. Of having attended, during the whole period of attendance on surgical hospital practice (see Clause 13), demonstrations in the post-mortem rooms of a recognised hospital.

18. Of having attended, at a recognised hospital or hospitals, the practice of Medicine, and clinical lectures on Medicine, during one winter and one summer session.

Notice.—Clauses 6, 8, 11, 14, and 17, and Notes A, B, C, E, and F, together with the courses of lectures on Forensic Medicine and Pathological Anatomy mentioned in Clause 9, are applicable to candidates who commenced their professional education on or after October 1, 1870.

N.B.—Blank forms of the required certificates may be obtained on application to the Secretary, and all necessary certificates will be retained at the College.

SECTION II.

I. Certificates will not be received on more than one branch of science from one and the same lecturer; but Anatomy and Dissections will be considered as one branch of science.

II. Certificates will not be recognised from any hospital in the United Kingdom unless the surgeons thereto be members of one of the legally constituted Colleges of Surgeons in the United Kingdom; nor from any school of Anatomy and Physiology or Midwifery, unless the teachers in such school be members of some legally constituted College of Physicians or Surgeons in the United Kingdom; nor from any school of Surgery, unless the teachers in such school be members of one of the legally constituted Colleges of Surgeons in the United Kingdom.

III. No metropolitan hospital will be recognised by this College which contains less than 150, and no provincial or colonial hospital which contains less than 100 patients.

IV. The recognition of colonial hospitals and schools is governed by the same regulations, with respect to number of patients and to courses of lectures, as apply to the recognition of provincial hospitals and schools in England.

V. Certificates of attendance upon the practice of a recognised provincial or colonial hospital, unconnected with, or not in convenient proximity to, a recognised medical school, will not be received for more than one winter and one summer session of the hospital attendance required by the regulations of this College; and in such cases clinical lectures will not be

(a) The winter session comprises a period of six months, and, in England, commences on October 1, and terminates on March 31.

(b) The summer session comprises a period of three months, and, in England, commences on May 1, and terminates on July 31.

necessary, but a certificate of having acted as dresser for a period of at least six months will be required.

VI.—Certificates will not be received from candidates who have studied in London, unless they shall have registered at the College their cards of admission to attendance on lectures and hospital practice within fifteen days from the commencement of the session; nor from candidates who have studied in the provincial schools in England, unless their names shall be duly returned from their respective schools.

N.B.—At their first registration in October, candidates will be required to produce a certificate of having passed one or other of the preliminary examinations in general knowledge recognised by this College.

VII. Those candidates who shall have pursued the whole of their studies in Scotland or Ireland will be admitted to examination upon the production of the several certificates required respectively by the College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the College of Surgeons in Ireland, from candidates for their diploma, together with a certificate of instruction and proficiency in the practice of vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the preliminary examination, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge; and in the case of candidates who shall have pursued the whole of their studies at recognised foreign or colonial universities, upon the production of the several certificates required for their degree by the authorities of such universities, together with a certificate of instruction and proficiency in the practice of vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the preliminary examination, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge.

VIII. Members or licentiates of any legally constituted College of Surgeons in the United Kingdom, and graduates in Surgery of any University recognised for this purpose by this College, will be admitted to examination on producing their diploma, licence, or degree, together with proof of being twenty-one years of age, a certificate of instruction and proficiency in the practice of vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the preliminary examination, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge.

IX. Graduates in Medicine of any legally constituted College or University recognised for this purpose by this College will be admitted to examination on adducing, together with their diploma or degree, proof of being twenty-one years of age, a certificate of instruction and proficiency in the practice of vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the preliminary examination, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge.

The following are regulations as to the examination for the qualification of Membership:—

The examination is divided into two parts.

1. The first, or primary examination, on Anatomy and Physiology, is partly written and partly demonstrative on the recently dissected subject, and on prepared parts of the human body.

2. The second, or pass examination, on Surgical Anatomy and the Principles and Practice of Surgery and Medicine, (c) is partly written, partly oral, and partly on the practical use of surgical apparatus, and the practical examination of patients.

3. The primary examinations are held in the months of January, April, May, July, and November, and the pass examinations generally in the ensuing week respectively.

4. Candidates will not be admitted to the primary examination until after the termination of the second winter session of their attendance at a recognised school or schools; nor to the pass, or surgical examination, until after the termination of the fourth year of their professional education.

5. The fee of £5 5s., paid prior to the primary examination, and

(c) Candidates can claim exemption from examination in Medicine under the following conditions, viz.:—(1.) The production by the candidate of a degree, diploma, or licence in Medicine entitling him to register under the Medical Act of 1858; or a degree, diploma, or licence in Medicine in a colonial or foreign university approved by the Council of the College.

(2.) A declaration by the candidate, prior to his admission to the final examination for Membership or Fellowship, that it is his intention to obtain either of the medical qualifications mentioned in the foregoing paragraph, in which case the diploma of the College will not be issued to him until he shall produce either the said medical qualification or proof of having passed the several examinations entitling him to receive the same.

allowed on the whole fee of £22(d) payable for the diploma, is retained; and after any two consecutive failures at the primary examination, the candidate is required to pay an additional fee of £5 5s. prior to being again admitted to that examination, which additional fee is also retained.

6. Five guineas, part of the sum of £16 15s., the balance of the whole fee due for the diploma, and paid prior to the pass examination, is retained; and after any two consecutive failures at the pass examination, the candidate is required to pay an additional fee of £5 5s. prior to being again admitted to the said pass examination, which additional fee is also retained.

7. A candidate having entered his name for either the primary or pass examination, who shall fail to attend the meeting of the Court for which he shall have received a card, will not be allowed to present himself for examination within a period of three months from the date at which he shall have so failed to attend.

8. A candidate referred on the primary examination is required, prior to his admission to re-examination, to produce a certificate of the performance of dissections during not less than three months subsequently to the date of his reference.

9. A candidate referred on the pass examination is required, prior to his admission to re-examination, to produce a certificate of at least six months' further attendance on the surgical practice of a recognised hospital, together with lectures on Clinical Surgery, subsequently to the date of his reference.

CERTIFICATE OF QUALIFICATION IN MIDWIFERY.(e)

This College also, after due examination, grants a special certificate of qualification in Midwifery. This, however, though of great value to the possessor, cannot be registered, and is only granted to men otherwise qualified.

1. Persons who were Fellows or Members of the College prior to the first day of January, 1853, will be admitted to examination for the certificate of qualification in Midwifery upon producing their diploma.

2. Persons having become Members of the College subsequently to the first day of January, 1853, will be admitted to examination on producing their diploma, together with a certificate or certificates of having attended twenty labours.

3. Members or Licentiates of any legally constituted College of Surgeons in the United Kingdom, and graduates in Surgery of any University recognised for this purpose by this College, will also be admitted to examination on producing, together with their diploma, licence, or degree, proof of being twenty-one years of age; of having been occupied at least four entire years in the acquirement of professional knowledge; of having attended one course of lectures on Midwifery; and of having attended not less than twenty labours.

4. Graduates in Medicine of any legally constituted college or university recognised for this purpose by this College, will also be admitted to examination on producing, together with their diploma or degree, proof of being twenty-one years of age; of having been occupied at least four entire years in the acquirement of professional knowledge; of having completed at recognised schools the anatomical and surgical education required of candidates for the diploma of Member of the College; of having attended one course of lectures on Midwifery; and of having attended not less than twenty labours.

5. Persons having commenced their professional education, either by attendance on hospital practice or on lectures on Anatomy, prior to the first day of January, 1853, will be admitted to examination on producing the several certificates of professional education required for admission to examination for the diploma of Member of this College at the period when such persons shall respectively have, in such manner, commenced their professional education.

6. Persons having commenced their professional education, either by attendance on hospital practice or on lectures on Anatomy, after the 31st day of December, 1852, will be admitted to examination on producing certificates of being twenty-one years of age; of having been engaged during at least four entire years in the acquirement of professional knowledge; of having completed at recognised schools the professional education required of candidates for the diploma of Member of this College; of having attended one course of lectures on Midwifery and the Diseases of Women and Children; and of having personally conducted thirty labours.

Note.—All candidates who commenced their professional education on or after October 1, 1866, will, in addition to the certificates enumerated in the foregoing clauses, be required to produce a certificate of having, prior to such commencement, passed a preliminary examination in general knowledge recognised by this College.

N.B.—The fee for the certificate is as follows, viz.:—1. Persons who were Fellows or Members of this College prior to January 1, 1853, £2 2s. 2. Persons admitted Fellows or Members of this College subsequently to January 1, 1853, £3 3s. 3, 4. Persons producing any other diploma or certificate or degree which may be considered by the Council to afford satisfactory proof of sufficient surgical and medical education, £3 3s. 5, 6. All other persons, £10 10s.

3. SOCIETY OF APOTHECARIES (ENGLAND).

Every candidate for a certificate of qualification to practise as an apothecary will be required to produce testimonials—

1. Of having passed a preliminary examination in Arts, as a test of general education. 2. Of having attained the full age of twenty-one years. 3. Of good moral conduct. 4. A certificate of three months' Practical Pharmacy from some recognised hospital or dispensary, or from a qualified medical practitioner. 5. Of having pursued a course of medical study in conformity with the regulations of the Court.

Course of Study.—Every candidate must attend the following lectures and medical practice: each winter session to consist of

(d) This sum of £22 is exclusive of the fee of £2 paid for the preliminary examination.

(e) This is practically in abeyance, there being no Board of Examiners.

not less than six months, to commence on the 1st and not later than the 15th of October; each summer session to commence on the 1st and not later than the 15th of May.

First Year.—Winter Session: Chemistry; Anatomy and Physiology, including Dissections and Demonstrations. Summer Session: Botany; Materia Medica and Therapeutics; Practical Chemistry.

Second Year.—Winter Session: Anatomy and Physiology, including Dissections and Demonstrations; Principles and Practice of Medicine; Clinical Medical Practice. Summer Session: Midwifery and Diseases of Women and Children; Forensic Medicine and Toxicology; Clinical Medical Practice.

Third Year.—Winter Session: Principles and Practice of Medicine; Clinical Medical Lectures; Morbid Anatomy; Pathology and Clinical Medical Practice. Summer Session: Practical Midwifery and Vaccination; Morbid Anatomy; Clinical Medical Practice.

No certificates of lectures, or of anatomical instructions delivered in private to particular students apart from the ordinary classes of recognised public medical schools, can be received by the Court of Examiners.

SYLLABUS OF SUBJECTS FOR EXAMINATION.

1. *The English Language.*—The leading features of its history; its structure and grammar; English composition.

2. *The Latin Language.*—January Examination: Cicero—*De Amicitia*. April Examination: Virgil—*Georgics*, Book IV. September Examination: Ovid—*Metamorphoses*, Book I. Re-translation of easy sentences. Grammatical questions will be introduced into the Latin paper, and each candidate will be expected to give satisfactory answers to these.

3. *Mathematics.*—The ordinary rules of arithmetic. Vulgar and Decimal Fractions. Addition, Subtraction, Multiplication, and Division of Algebraical Quantities. Simple Equations. The First Two Books of Euclid.

4. (a) *Greek.*—Xenophon: *Anabasis*, Books I. and II. Grammatical questions. (b) *French.*—St. Pierre: *Paul et Virginie*. Translation from English into French. Grammatical questions. (c) *German.*—Goethe: *Egmont*. Translation from English into German. Grammatical questions. (d) *Natural Philosophy.*—Mechanics. Hydrostatics and Pneumatics.

Professional Examinations.—The Court of Examiners meet in the Hall every Wednesday and Thursday, where candidates are required to attend at 4.30 p.m. Every candidate intending to offer himself for examination must give seven days' notice previous to the day of examination, and must at the same time deposit all the required certificates, with the fee, at the office of the Beadle, where attendance is given daily, from ten to four o'clock; Saturdays, ten to two.

The certificates being found correct, a card to admit the candidate will be sent, stating the day and hour of examination.

The examination of candidates is divided into two parts, and is conducted partly in writing and partly *viva voce*.

The first examination which may be passed after the second winter session, embraces the following subjects:—Physicians' Prescriptions and Pharmacy; Anatomy and Physiology, including an examination on the living subject; General and Practical Chemistry; Materia Medica and Botany; Histology.

Testimonials required of Candidates for the First Examination.

—Of having passed an examination in Arts, recognised by the Medical Council; of having completed the curriculum of study to the close of the second winter session; of having attended three months' Practical Pharmacy; and of good moral conduct. Any candidate who presents himself for the first examination and is rejected may be admitted to re-examination at the expiration of three calendar months.

The Second Examination.—At the termination of the medical studies: Principles and Practice of Medicine, Pathology and Therapeutics; Midwifery, including the diseases of women and children; Forensic Medicine and Toxicology; Microscopical Pathology.

Certificates required of Candidates for the Second or Pass Examination.—Of having completed four years' medical study, including the period spent at the Hospital; of being twenty-one years of age; and of good moral conduct. Of having passed the first examination. Of having completed the prescribed curriculum of study according to the schedule, including a personal attendance of twenty cases of Midwifery, (a certificate of which will be received from any registered practitioner); and of having received instruction in practical Vaccination, and vaccinated not less than twenty cases (this certificate must be obtained from a public vaccinator recognised by the Local Government Board). Of having served the office of clinical clerk at a recognised hospital during the period of six weeks, at least. Of having been examined at the class examinations instituted by the various lecturers and professors of their respective medical schools and colleges. By the 22nd section of the Act of Parliament of 1815, no rejected

candidate for the licence can be re-examined until the expiration of six calendar months from his former examination..

Modified Examinations.—All graduates in Medicine of British universities will be admitted to a modified examination.

The examination of candidates for certificates of qualification to act as Assistant in compounding and dispensing medicines will be as follows:—In translating physicians' prescriptions; in the British Pharmacopœia; in Pharmacy, Pharmaceutical Chemistry, Materia Medica, and Medical Botany.

By Section 22 of the Act of Parliament no rejected candidate as an Assistant can be re-examined until the expiration of three calendar months from his former examination.

Fees.—For a certificate of qualification to practise, £6 6s., half of which is retained in case of rejection, to be accounted for at a subsequent examination. For the first examination, £3 3s., which sum is retained in case of rejection and accounted for subsequently; for the second examination, £3 3s.; for an Assistant's certificate, £2 2s., which sum is retained in case of rejection, and accounted for subsequently. N.B.—After two rejections a second fee of £3 3s. will be required, or £1 1s. in the case of an Assistant.

Prizes are annually offered for proficiency in the knowledge of Materia Medica and Pharmaceutical Chemistry. The prizes consist of a gold medal awarded to the candidate who distinguishes himself the most in the examination; and a silver medal and a book or books to the candidate who does so in the next degree. Also two prizes for proficiency in the knowledge of Botany, consisting of a gold medal to the candidate who distinguishes himself the most in the examination; and a silver medal and a book or books to the candidate who does so in the next degree.

In Scotland, besides the Universities, there are three licensing bodies, viz.:—

4. ROYAL COLLEGE OF PHYSICIANS, EDINBURGH;
5. ROYAL COLLEGE OF SURGEONS, EDINBURGH;
6. FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

The first alone can give a qualification in Medicine; the two latter can give only a surgical qualification. Each of the surgical bodies has, however, most sensibly joined with the College of Physicians, so that a candidate can, by a single set of examinations, acquire a qualification both in Medicine and Surgery. For this reason, and as the greater must include the less, we shall only give the rules applying to these conjoint examinations. These are so nearly identical, that one set of regulations will suffice.

The Royal College of Physicians and the Royal College of Surgeons, Edinburgh, and the Royal College of Physicians of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow, while they continue to give their diplomas separately under separate regulations, have made arrangements by which, after one series of examinations, the student may obtain two separate licences—one in Medicine, and one in Surgery.

The general principle of this joint examination is, that it is conducted by a board in which each body is represented, the object being to give to students facilities for obtaining from two separate bodies, and at less expense, a double qualification in Medicine and in Surgery. Students passing these examinations successfully will be enabled to register two qualifications under the Medical Act—viz., Licentiate of the Royal College of Physicians and Licentiate of the Royal College of Surgeons, Edinburgh; and Licentiate of the Royal College of Physicians of Edinburgh and Licentiate of the Faculty of Physicians and Surgeons of Glasgow.

Candidates for these qualifications commencing professional study on or after October 1, 1866, must have been engaged in professional study during four years, and in actual attendance at a university or recognised school of medicine during not less than four winter sessions or three winter sessions and two summer sessions, and must have completed the following curriculum:—

1. Anatomy, two courses of lectures in distinct sessions, six months each.
2. Practical Anatomy, twelve months.
3. Chemistry, one course of lectures, six months.
4. Practical or Analytical Chemistry, one course, three months.
5. Physiology, not less than fifty lectures.
6. Practice of Medicine, one course of lectures, six months.

7. Clinical Medicine, extending to six months.

8. Another course of Practice of Medicine, or of Clinical Medicine, at the option of the candidate.

9. Principles and Practice of Surgery, one course of lectures, six months.

10. Clinical Surgery extending to six months.

11. Another course of Surgery, or of Clinical Surgery, at the option of the candidate.

12. Materia Medica, one course of lectures, three months.

13. Midwifery, one course of lectures, three months.

14. Practical Midwifery, attendance on at least six cases of labour.

15. Medical Jurisprudence, one course of lectures, three months.

16. Pathological Anatomy, instruction in the post-mortem rooms of a recognised hospital, three months.

17. Practical Pharmacy, instruction, three months.

18. General Hospital, attendance on the practice of a public general hospital, containing on an average not less than eighty patients, twenty-four months.

19. Proficiency in Vaccination, certified by a public vaccinator or a registered practitioner.

[Attendance for six months on the practice of a public dispensary, or certificate of having been engaged for six months as visiting assistant to a registered practitioner.—Edinburgh.]

Students are strongly recommended to avail themselves of any opportunities they may possess of studying Ophthalmic and Mental Diseases, Natural History, Comparative Anatomy, and Practical Physiology, in addition to what is required in the curriculum.

The examinations are conducted partly in writing and partly orally. Recent dissections, anatomical specimens, chemical tests, articles of the materia medica, the microscope, surgical and obstetrical apparatus, and pathological specimens, are employed at the discretion of the examiners. Candidates at the second examination are subjected in the hospital to a practical clinical examination in Medicine and Surgery.

Candidates for the double qualification who have passed the examination in Anatomy, Physiology, and Chemistry of one or other of the licensing bodies enumerated in Schedule (A) of the Medical Act, on complying with the regulations in other respects, are admissible to the second professional examination. No candidate is exempted from examination in any of the subjects of the second examination. No candidate shall be admissible to examination who has been rejected by any other licensing board within the three preceding months

7. KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

This body consists at present of Fellows and Licentiates. The College has recently obtained a Supplemental Charter, by which a grade of Members is founded; but the regulations relating to the membership are not yet ready for publication. The regulations relating to Licentiates are as follows:—Candidates must produce—1. Evidence of having been engaged in the study of Medicine for four years. 2. A certificate of having passed the preliminary examination of one of the recognised licensing corporations before the termination of the second year of medical study. 3. Certificates of having studied at a school or schools recognised by the College, the following subjects, viz.:—Practical Anatomy, two courses; and Physiology or Institutes of Medicine, Botany, Chemistry, Practical Chemistry, Materia Medica, Practice of Medicine and Pathology, Surgery, Midwifery, Medical Jurisprudence, one course each. 4. Certificates of having attended a medico-chirurgical hospital in which regular courses of clinical lectures are delivered, together with clinical instruction, for twenty-seven months; and of having been in attendance during at least nine months on a clinical hospital which contains wards for the treatment of infectious fevers, (a) said nine months being included in the total period of twenty-seven months. 5. Of having attended Practical Midwifery and Diseases of Women for six months at a lying-in hospital or maternity recognised by the College; or, where such hospital attendance cannot have been obtained during any period of the student's course of study, of having been engaged in Practical Midwifery under the supervision of a registered practitioner holding public appointments; the certificate in either case to state that not less than twenty

(a) This rule to be enforced in the case of all candidates who commenced their studies since September, 1876.

labour cases have been actually attended. 6. Certificates of character from two registered physicians or surgeons.

A candidate who has already obtained a medical or surgical qualification recognised by the College is only required to produce his diploma or certificate of registration, a certificate of Practical Midwifery, and testimonials as to character.

EXAMINATION FOR THE LICENCE IN MEDICINE.

The examination consists of two parts. The subjects of the first part, or previous examination, are—Anatomy, Physiology, Chemistry, and Materia Medica. The subjects of the second part, or final examination, are—Practice of Medicine, Medical Jurisprudence, Midwifery, Clinical Medicine, Pathology, Hygiene, and Therapeutics.

All candidates for the second or final examination (with the exception below specified) (b) are examined in the Practice of Medicine at the bedside in one of the hospitals of Dublin, and in the College by means of printed questions and orally in all the subjects of examination.

Candidates qualified as follows are required to undergo the *second part* of the professional examination *only*, viz.:—

1. Graduates in Medicine of a university in the United Kingdom, or of any foreign university approved by the College. 2. Fellows, Members, or Licentiates of the Royal College of Physicians of London or Edinburgh, who have been admitted upon examination. 3. Graduates or Licentiates in Surgery. 4. Candidates who, having completed the curriculum above mentioned, have passed the previous professional examination or examinations of any of the licensing corporations in the United Kingdom.

LICENCE IN MIDWIFERY.

Candidates already qualified in Medicine or Surgery may apply for permission to be examined for the licence in Midwifery. The certificates required to be lodged are the same as those required from *qualified* candidates for the licence to practise Medicine.

Fees.—Fee for the licence in Medicine, £15 15s. Fee for licences in Medicine and Midwifery (for which latter there is a separate examination), if taken out within an interval of a month, £16 16s. Fee for the licence in Midwifery, £3 3s.

The election for Fellowship takes place twice a year, viz., on the first Friday in April and on St. Luke's Day (October 18). Candidates must be proposed and seconded three months previously.

REGULATIONS RESPECTING FEMALE CANDIDATES FOR EXAMINATION FOR A LICENCE TO PRACTISE AS MIDWIVES AND NURSE-TENDERS.

Qualifications.—Age not less than twenty-one years; certificates of character.

Preliminary Examination.—Reading, writing, and arithmetic.

Course of Instruction.—Six months' attendance on systematic lectures on Midwifery, and not less than six months' attendance on bedside instruction in a lying-in hospital or maternity recognised by the College.

Subjects for the Examinations.—Midwifery (not including operations) and Nurse-tending.

Examination fee, £1 1s.

3. THE ROYAL COLLEGE OF SURGEONS, IRELAND.

This body grants two qualifications—that of Fellow, and Letters Testimonial equivalent to a Licentiatehip. The regulations relating to the latter are as follows:—

Candidates for the Letters Testimonial of the College may present themselves either at a Special or at a Stated Examination, as follows:—

SPECIAL EXAMINATIONS.

Every registered pupil shall be admitted, upon payment of a special fee of £5 5s., to a Special Examination for Letters Testimonial, if he shall have laid before the Council the following documents:—

a. A receipt showing that he has lodged, in addition to his registration and special fees, a sum of £21 in the Bank of Ireland, to the credit of the President, and for the use of the College.

b. A certificate that he has passed a preliminary examination, conducted by a board recognised by the General Medical Council, into the curriculum of which the Greek language enters as a compulsory subject.

(b) Registered practitioners of five years' standing are exempted from the written portion of the final examinations for both licences.

c. A certificate showing that he has been engaged in the study of his profession for not less than four years.

d. Certificates of attendance during three years on a hospital recognised by the Council, where clinical instruction is given.

e. Certificates of attendance on three courses of lectures on Anatomy and Physiology; three courses of lectures on the Theory and Practice of Surgery; and of the performance of three courses of Dissections, accompanied by demonstrations; also certificates of attendance on two courses of lectures on Chemistry, or one course of lectures on General and one on Practical Chemistry; one course of lectures on Materia Medica; one course of lectures on the Practice of Medicine; one course of lectures on Midwifery; one course of lectures on Medical Jurisprudence; and one course of lectures on Botany.

N.B.—The subjects for examination, and the mode of carrying these out, for a Special Examination, will be the same as those hereinafter laid down for the Stated Examinations, and any rejected candidate will only be entitled to receive back £15 15s. of the fees lodged by him.

VACCINATION.—NEW ORDINANCE OF COUNCIL.

On and after August 1, 1879, no candidate for letters testimonial shall be admitted to examination without producing a certificate of attendance for one month at the Cow-pock Institution, or some other institution to be approved of by this Council, under the instruction of a public vaccinator specially recognised by this College for the purpose, and that he is practically acquainted with vaccination.

STATED EXAMINATIONS.

1st. Stated Examinations shall be held in the months of April, July, and November, commencing on dates of which due notice shall be given beforehand by the Council of the College, and to which *candidates cannot be admitted unless they be registered pupils*, and at which they shall be divided into two classes—Junior and Senior.

2nd. The Junior Class shall produce certificates of having passed a preliminary examination conducted by a board recognised by the General Medical Council, into the curriculum of which the Greek language enters as a compulsory subject; and of having attended three courses of lectures on Anatomy and Physiology; three courses of lectures on Practical Anatomy, with dissections; two courses of lectures on Chemistry; one course of lectures on Materia Medica; one course of lectures on Botany; and one course of lectures on Forensic Medicine.

3rd. This class shall be examined in Anatomy, Histology, Physiology, Materia Medica, and Chemistry.

4th. The fee for this examination shall be £5 5s., in addition to the registration fee of £5 5s.—not to be returned in case of rejection, but to be allowed the candidate in case he presents himself a second time for examination.

5th. The Senior Class shall produce certificates of having attended three courses of lectures on the Theory and Practice of Surgery, one course of lectures on the Practice of Medicine, and one course of lectures on Midwifery; also certificates of attendance on a recognised hospital for three winter and three summer sessions.

6th. This class shall be examined in Surgery, Operative Surgery and Surgical Appliances, Practice of Medicine, Medical Jurisprudence, and Prescriptions.

7th. The fee for the Senior Class Examination shall be £15 15s., returnable to the candidate in case of rejection.

8th. Both of these examinations shall be conducted partly by written and partly by oral questions.

9th. In addition to the foregoing fees, a fee of £1 1s. is to be paid to the Registrar on handing each licentiate his diploma.

10th. Every candidate rejected at any of the Stated Examinations, on applying for re-examination, shall be required to pay to the College, in addition to the regular fees, the sum of £2 2s. to reimburse the College the necessary expense of his re-examination.

This body also grants a diploma in Midwifery, for which the following are the regulations:—

Qualifications of Candidates for the Diploma in Midwifery.—Any Fellow or Licentiate of the College shall be admitted to an examination for the diploma in Midwifery upon laying before the Council the following documents:—a. A certificate showing that he has attended one course of lectures on Midwifery and Diseases of Women and Children, delivered by a professor or lecturer in some School of Medicine or Surgery recognised by the Council. b. A certificate showing that he has attended, during a period of six months, the practice of a lying-in hospital recognised by the Council; or the practice of a dispensary for lying-in women and children recognised by the Council and devoted to this branch of Surgery alone. c. A certificate showing that he has conducted thirty labour cases, at least.

Fees to be paid by Candidates for the Diploma in Midwifery.—The candidate pays £1 6s. for the Midwifery diploma, provided he takes it out within one month from the date of his letters testimonial; after that date the fee will be £2 2s.

9. THE APOTHECARIES' HALL OF IRELAND.

This body grants a licence to practise, on the following conditions:—

1. Of having passed an examination in Arts previously to entering on professional study.
2. Of being at least twenty-one years of age, and of good moral character.
3. Of pupilage to a qualified apothecary, or of having been otherwise engaged in practical pharmacy for a period of twelve months subsequent to having passed the examination in Arts.
4. Of having spent four years in professional study.
5. Of having attended the following courses, viz.:—Chemistry, during one winter session; Anatomy and Physiology, during two winter sessions; Demonstrations and Dissections, during two winter sessions; Botany and Natural History, during one summer session; Practical Chemistry (in a recognised laboratory), during three months; Materia Medica, during three months; Principles and Practice of Medicine and Therapeutics, during one winter session; Midwifery and Diseases of Women and Children, during six months; Practical Midwifery at a recognised hospital (attendance upon twenty cases); Surgery, during one winter session; Forensic Medicine, during one summer session; instruction in the practice of Vaccination.
6. Of having attended, at a recognised hospital or hospitals, the practice of Medicine and clinical lectures on Medicine, during two winter and two summer sessions; also the practice of Surgery and clinical lectures on Surgery, during one winter and one summer session.
7. Of practical study, with care of patients, as apprentice, pupil, assistant, clinical clerk, or dresser, in hospital, dispensary, or with a registered practitioner.
8. Of having performed the operation of vaccination successfully under a recognised vaccinator.

The examination for the licence to practise is divided into two parts:—The first part comprehends Chemistry, Botany, Anatomy, Physiology, Materia Medica, and Pharmacy; the second—Medicine, Surgery, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Hygiene.

The professional examinations will be held quarterly, and will commence on the first and second Mondays in the months of January, April, July, and October.

THE HIGHER QUALIFICATIONS.

BESIDES the ordinary qualifications available to students who have just finished their curriculum, there are higher grades in the profession attainable after a certain period. Thus, at the Universities the student first graduates M.B., and after certain years, with or without a special examination, proceeds to the degree of M.D. At the Royal College of Physicians, in the same manner, with or without the Licentiate'ship, one may proceed to take the Membership of the College; but this is rarely done save by those who desire to practise what is called "pure" Medicine. This is by the rules of most hospitals a necessary qualification for one desiring the post of Physician to them. The reason of this limitation is that the by-laws of the College impose such restrictions on its Members that it is hardly possible for them to practise as general practitioners. Again, at the College of Surgeons, those who have obtained the qualification of M.R.C.S.E. may, after certain special study, to which we need not here further refer, present themselves for examination for the Fellowship. This stands in the same relationship to the surgical branch of our profession as does the Membership of the Royal College of Physicians to the purely medical; but, inasmuch as the restrictions are less onerous, it is also possessed by many general practitioners. The Fellowship of the College of Physicians is purely elective. These, however, are not Student-qualifications, and consequently the rules and regulations relating to them are here omitted.

THE SELECTION OF A SCHOOL.

THE pupil or his friends having determined in their own minds the body whose qualification is to be sought, and the consequent curriculum to be followed, the next thing is to seek the means of following out this curriculum, and of obtaining the knowledge necessary for the acquisition of the diploma. This is often a simple enough matter, for if a student desires to obtain the degree of M.B. Edinburgh, he naturally enters himself as a student in that University. In London it is otherwise. Here we would advise all who desire an ordinary qualification in Medicine and Surgery to look forward to those offered by the Royal Colleges of Physicians and Surgeons. The licence of the Apothecaries' Society is in many ways useful, but it does not possess the same high character as that given by the Royal College of Physicians. The curricula of the English schools are specially adapted to the regulations of these bodies, and hence there is no difficulty in obtaining what the student wants. The difficulty to be solved is, where to get it of the best quality. In other words, the student or his friends have to select one of the eleven metropolitan or one of the provincial schools in which to pursue his studies. This, in many instances, is settled by matter of convenience; the youth's residence, or that of some of his friends, may make them select the nearest school, be it great or small. But when neither this nor any other reason is operative, the selection of a school often becomes a somewhat difficult matter. Above all, there is the old difficulty of a large school or a small. The largest schools are St. Bartholomew's, Guy's, and University College; the first two having at the same time the largest hospitals, with the exception of the London Hospital, in London; but, on the other hand, University College Hospital is one of the smallest. This very effectually deals with the idea that the success of a school exactly corresponds to the size of the hospital with which it is associated. The truth is, that the size of the hospital does not greatly matter. It is quite impossible for any one student to attend upon the whole practice of even a small hospital with advantage. A physician or surgeon finds that the number of beds he can use with advantage to himself and others is very limited; and still more is this the case with the student. Again, as regards class-work, there can be no doubt that with a large body of young men enthusiasm is highly contagious; but so, too, is indifference; and as regards tutorial work there can be no question of the superiority of a small class over a large one. The place to select—for all the recognised hospitals are large enough—is where the teachers are active and enthusiastic, and have got their way to make in the world, and whose success in life must in great measure depend on the success of their school. University College is a good example of what may be done in this way, for the teachers there have by such means raised their numbers to a height which is hardly manageable in so small a hospital.

ENTRANCE SCHOLARSHIPS.

The following is a list of Entrance Scholarships given at the various London hospitals:—

St. Bartholomew's Hospital.—Two open Scholarships in Science, each £130 for one year. Subjects: Physics, Chemistry, Botany, and Zoology. Also one of £50 in preliminary education.

Charing-cross Hospital.—Two Entrance Scholarships, £30 and £20. Subjects—Compulsory: English, Latin, French or German, Mathematics; Optional (one only may be selected): Chemistry, Mechanics, German or French. The subjects and authors will be the same as those chosen for the London matriculation of the preceding June.

Guy's Hospital.—Two of £131 5s.—one in preliminary education, the other in science.

London Hospital.—Two Entrance Science Scholarships, £60 and £40. Preliminary education.

King's College.—Three Scholarships of £25—two for three years, one for two; Divinity, Classics, Mathematics, History (English), Chemistry, Botany, and Natural Philosophy; also one of £100 in science only.

St. Mary's Hospital.—Two Entrance Scholarships, £150 and £125. Natural Science.

Middlesex Hospital.—Two Entrance Scholarships, £25 and £20, tenable for two years.

St. Thomas's Hospital.—Two (£60 and £40) Entrance Science Scholarships. Subjects the same as for the Preliminary Scientific Examination of the University of London (Honours). Open to all first year's students, without condition as to having previously entered as students of the Hospital.

University College.—Three Entrance Scholarships, £30, £20, and £10, tenable for two years. Preliminary education. After the present year the value of the Entrance Exhibitions will be £100, £60, and £40, and the subjects of examination will be those of the Preliminary Scientific Examination of the University of London.

Westminster Hospital.—Four Entrance Scholarships—two of £50 for two years, and two of £10 for one year. Latin, Mathematics, French or German, and Physics and Chemistry.

LONDON HOSPITALS AND MEDICAL SCHOOLS.

ST. BARTHOLOMEW'S HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Consulting Physicians.

Sir G. Burrows, Bart., D.C.L., F.R.S., Dr. Farre, Dr. Harris, Dr. Martin, Dr. Black.

Consulting Surgeon—Sir J. Paget, Bart., D.C.L., F.R.S.

Physicians.

Dr. Andrew.
Dr. Southey.
Dr. Church.
Dr. Gee.

Assistant-Physicians.

Dr. Duckworth.
Dr. Hensley.
Dr. Brunton, F.R.S.
Dr. Legg.

Physician-Accoucheur.

Dr. Matthews Duncan.

Assistant Physician-Accoucheur.

Dr. Godson.

Surgeons.

Mr. Holden.
Mr. Savory, F.R.S.
Mr. Callender, F.R.S.
Mr. Thomas Smith.

Assistant-Surgeons.

Mr. Willett.
Mr. Langton.
Mr. Marrant Baker.
Mr. Marsh.

Ophthalmic Surgeons.

Mr. Power.
Mr. Vernon.

Casualty Physicians—Dr. V. D. Harris, Dr. J. A. Ormerod, Dr. S. West.

Dental Surgeon—Mr. Coleman.

Administrator of Chloroform—Mr. Mills.

Medical Registrar—Dr. Champneys.

Surgical Registrars—Mr. Macready, Mr. Cripps.

LECTURES.

Botany—Rev. George Henslow.
Chemistry and Practical Chemistry—Dr. Russell.

Clinical Medicine—Dr. Andrew, Dr. Southey, Dr. Church, and Dr. Gee.
Clinical Surgery—Mr. Holden, Mr. Savory, Mr. Callender, Mr. Thos. Smith.

Comparative Anatomy—Dr. Moore.
Dental Anatomy and Surgery—Mr. Coleman.

Descriptive and Surgical Anatomy—Mr. Langton and Mr. Marsh.
Forensic Medicine—Dr. Southey.
Public Health and Hygiene—Dr. Thorne.

General Anatomy and Physiology—Mr. Marrant Baker.

Histology—Dr. Klein.
Materia Medica—Dr. Brunton.

Medicine—Dr. Andrew and Dr. Gee.

Mental Diseases—Dr. Claye Shaw.
Midwifery and the Diseases of Women and Children—Dr. Matthews Duncan.

Ophthalmic Medicine and Surgery—Mr. Power.

Pathological Anatomy—Dr. Legg.
Surgery—Mr. Savory and Mr. Callender.

DEMONSTRATIONS.

Chemistry—Dr. Armstrong.
Diseases of the Ear—Mr. Langton.
Diseases of the Eye—Mr. Vernon.
Diseases of the Larynx—Dr. Brunton.
Diseases of the Skin—Mr. Baker.
Mechanical and Natural Philosophy—Mr. Macalister.

Morbid Anatomy—Dr. Moore.
Orthopædic Surgery—Mr. Willett.
Practical Anatomy and Operative Surgery—Mr. Cumberbatch, and Mr. Walsham.
Practical Physiology—Dr. V. Harris.
Practical Surgery—Mr. Butlin.

Medical Tutor—Dr. S. West.

This Hospital comprises a service of 710 beds, of which 676 are in the Hospital in Smithfield, and 34 are for convalescent patients at Lauderdale House, Highgate.

SCHOLARSHIPS AND PRIZES.

The following scholarships and prizes are awarded:—Open Scholarships in Science, founded 1873; subjects of examination—Physics, Chemistry, Botany, and Zoology. These scholarships, of the value of £130 each, tenable for one year, will be competed for on September 25 and following days. Preliminary

Scientific Exhibition, founded 1873; subjects of examination—Physics, Chemistry, Botany, and Zoology. This Exhibition, of the value of £50, is awarded in October. Lawrence Scholarship and Gold Medal, of the value of £40, founded in 1873 by the family of the late Sir W. Lawrence. Brackenbury Scholarship in Medicine, and Brackenbury Scholarship in Surgery, founded in 1873 by the will of the late Miss Hannah Brackenbury, who left £2000 for this purpose. Senior Scholarship of the value of £50—Anatomy, Physiology, and Chemistry. Junior Scholarships of the value of £50, £30, and £20 are awarded after an examination in the subjects of study of the first year at the end of the summer and winter sessions. The Jeaffreson Exhibition, of the value of £50, is awarded at the commencement of each winter session, after open competition, on the same days as the Science Scholarships in Classics, Mathematics, and Modern Languages. The Wix Prize is awarded for the best essay on the following subject—"The Life and Works of Percival Pott." Hichens Prize: subject of examination—Bishop Butler's Analogy. Bentley Prize, for the best report of medical cases occurring in the wards of the Hospital during the previous year. It is expected that the reports will comprise the histories, progress, treatment, and results of not less than twelve cases, with observations thereupon. Foster Prize: subject of examination—Practical Anatomy; senior. Treasurer's Prize: subject of examination—Practical Anatomy; junior. The Kirkes Gold Medal: subject of examination—Clinical Medicine.

FEES.

Whole fee for attendance on lectures and hospital practice £138 12s., payable by instalments—first winter £42, first summer £48 6s., second summer £48 6s.—or a single payment of £131 5s. Payment in either of these ways entitles to a perpetual ticket.

A College for resident students exists in connexion with the Hospital; Warden, Dr. Norman Moore, from whom students will obtain information respecting rooms in the College, or will be advised regarding residence out of the Hospital.

All communications to be addressed to the Warden of the College, St. Bartholomew's Hospital, E.C.

CHARING-CROSS HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Consulting Physician—Sir Joseph Fayrer, M.D., K.C.S.I., F.R.S.

Consulting Surgeons—Mr. H. Hancock, F.R.C.S., and E. Canton, F.R.C.S.

Physicians.

Dr. A. J. Pollock.
Dr. A. Silver.
Dr. T. H. Green.

Assistant-Physicians.

Dr. J. Mitchell Bruce.
Dr. J. Pearson Irvine.
Dr. David B. Lees.
Dr. W. B. Houghton.

Physician-Accoucheur.

Dr. J. Watt Black.

Physician for Skin Diseases.

Dr. A. Sangster.

Medical Registrar.

Dr. Robert Smith.

Surgeons.

Mr. F. Hird.
Mr. R. Barwell.
Mr. E. Bellamy.

Assistant-Surgeons.

Mr. J. Astley Bloxam.
Mr. R. J. Godlee.
Mr. E. Amphlett.

Dental Surgeon.

Mr. John Fairbank.

Chloroformists.

Mr. Woodhouse Braine.
Mr. G. H. Bailey.

Surgical Registrar.

Mr. Albert Leahy.

LECTURERS AND TEACHERS.

Anatomy—Mr. Edward Bellamy.
Minor Surgery—Mr. James Cantlie.
Botany—Rev. J. C. Saunders.

Chemistry & Practical Chemistry—Mr. C. W. Heaton; Demonstrator, Mr. J. J. Broadbent.

Clinical Medicine—Dr. Alexander Silver.

Clinical Surgery—Mr. H. Hancock.
Comparative Anatomy—Dr. J. F. Blake.

Demonstrations and Dissections—Mr. James Cantlie.

Dental Surgery—Mr. John Fairbank.

Diseases of Children—Dr. W. B. Houghton.

Forensic Medicine—Dr. J. Pearson Irvine.

Materia Medica and Therapeutics—Dr. J. Mitchell Bruce.

Mental Diseases—Dr. L. S. Forbes Winslow.

Morbid Histology—Mr. Jas. Cantlie.

Operative Surgery—Mr. J. A. Bloxam.

Pathology and Morbid Anatomy—Dr. T. Henry Green.

Physiology, Theoretical and Practical—Dr. Alexander Silver, assisted by Dr. R. Smith and Mr. D. Colquhoun.

Practical Chemistry—Mr. C. W. Heaton; Demonstrator—Mr. J. J. Broadbent.

Principles and Practice of Medicine—Dr. A. J. Pollock.

Principles and Practice of Midwifery and Diseases of Women—Dr. J. Watt Black.

Principles and Practice of Surgery—Mr. R. Barwell.

Public Health—Dr. J. Pearson Irvine, Mr. C. W. Heaton, and Mr. W. Eassie.

Skin Diseases—Dr. A. Sangster.

Surgical Pathology—Mr. E. Amphlett.

SCHOLARSHIPS, MEDALS, AND PRIZES.

Two Entrance Scholarships, of the value of £30 and £20 respectively, tenable for one year, will be awarded annually in

October, after a competitive examination in the following subjects:—Compulsory: English, Latin, French or German, Mathematics. Optional (only one of which may be selected): Chemistry, Mechanics, German or French. The subjects (as regards extent and the authors selected) will be the same as those chosen for the Matriculation Examination of the University of London in the June immediately preceding. Candidates must give notice of their intention to compete on or before Saturday, September 20, 1879. The successful candidates will be required to enter for their medical education at Charing-cross Hospital.

The Llewellyn Scholarship of £25 is open to all matriculated students who have just completed their second academical year. The examination is held at the end of the second summer session, and includes the following subjects:—Descriptive and Surgical Anatomy, Physiology, Materia Medica, Medicine, Surgery, Midwifery.

The Golding Scholarship of £15 is open to all matriculated students who have just completed their first academical year. The examination is held at the end of the first summer session, and includes the following subjects:—Descriptive Anatomy, Physiology, Materia Medica, and Chemistry.

The Pereira Prize of £5 is open to all matriculated students who shall have completed their third academical year. It is awarded to the author of the best Clinical Reports of Cases in the Hospital during the preceding year, Medical and Surgical Cases being selected in alternate years.

Each candidate must produce a certificate of good conduct from the Dean of the Medical School, at the time of giving in his name as a competitor; and the names of the candidates for Scholarships are to be delivered to the Librarian one week before the first day of the examination.

The Governors' Clinical Gold Medal.—The competition for this medal is open to matriculated students who shall have completed, at the end of the current session, their attendance on the Medical and Surgical Practice of the Hospital. Candidates are examined on the subjects of Clinical Lectures delivered during the session, and on Medical and Surgical Cases in the wards of the Hospital.

Silver Medals.—Silver Medals are awarded in all the classes.

Bronze Medals.—Where two sessions' attendance on a course are required, a Bronze Medal is awarded in the junior class, in addition to the Silver one in the senior class.

Certificates of Honour are awarded to both senior and junior students who, not being the most proficient, have yet attained a marked degree of excellence.

FEEES.

Total fees, £83 4s. 8d., payable by instalments, if entered for the full period of study—October (on joining), £23 7s., including matriculation fee; May (following), £16 8s. 6d.; October, £19 6s. 2d.; May, £14 9s. 10d.; October, £9 13s. 2d. Dental Students: October (on joining), £22, including matriculation fee; October (following), £20—total, £42.

Students are admitted to the Medical and Surgical Practice for the full period required by the University of London, the Royal College of Physicians, the Royal College of Surgeons, and the Society of Apothecaries (including the clinical courses in both departments), on payment of £31 10s. Non-matriculated students are admitted on payment of the following fees:—Either Medical or Surgical Practice (including the clinical lectures): Three months, £6 6s.; six months, £10 10s.; twelve months, £15 15s.; full period, £21. Both Medical and Surgical Practice (including the clinical lectures): Three months, £10 10s.; six months, £15 15s.; twelve months, £21; full period, £31 10s. For a longer period, £5 5s. for each additional winter, and £3 3s. for each additional summer session.

ST. GEORGE'S HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Consulting Physicians—Dr. Wilson, Dr. Pitman, Dr. Ogle.
Consulting Surgeons—Mr. Caesar Hawkins, F.R.S., Mr. Tatum, Mr. Prescott Hewett, F.R.S., Mr. H. Lee.

Physicians.
Dr. Barclay.
Dr. Wadham.
Dr. Dickinson.
Dr. Whipham.

Assistant-Physicians.
Dr. Cavafy.
Dr. Watney.

Surgeons.
Mr. Pollock.
Mr. Holmes.
Mr. Rouse.
Mr. Pick.

Assistant-Surgeons.
Mr. Haward.
Mr. Stirling.

Obstetric Physician—Dr. Barnes.
Ophthalmic Surgeon—Mr. Brudenell Carter.
Aural Surgeon—Mr. Dalby. Dental Surgeon—Mr. A. Winterbottom.

LECTURERS.—WINTER SESSION.

Chemistry and Physics—Mr. Wanklyn.
Clinical Lectures on Diseases of Women—Dr. Barnes.
Clinical Medicine—Drs. Wadham and Whipham.
Clinical Surgery—Messrs. Pollock and Rouse.
Descriptive and Surgical Anatomy—Mr. Pick.
Histology—Mr. Stirling.

Morbid Anatomy—Dr. Ewart.
Ophthalmic Surgery—Mr. Brudenell Carter.
Pathology—Dr. Whipham.
Physiological Chemistry—Dr. Ratfe.
Physiology and General Anatomy—Dr. Cavafy.
Principles and Practice of Physic—Drs. Barclay and Dickinson.
Principles and Practice of Surgery—Mr. Holmes and Mr. Rouse.

SUMMER SESSION.

Aural Surgery—Mr. Dalby.
Botany—Dr. Owen.
Clinical Demonstrations of Diseases of the Skin—Dr. Cavafy.
Clinical Medicine—Dr. Barclay.
Clinical Surgery—Mr. Holmes.
Comparative Anatomy—Dr. Brailey.
Dental Surgery—Mr. Edgelow.
Materia Medica—Dr. Watney.

Medical Jurisprudence—Dr. Wadham.
Midwifery and Diseases of Women and Children—Dr. Barnes.
Practical Chemistry—Mr. Wanklyn.
Practical Medicine—Dr. Whipham.
Practical Surgery—Mr. Haward.
Psychological Medicine—Dr. Blandford.

EXHIBITIONS AND PRIZES.

"The William Brown Exhibition," of £100 per annum, tenable for two years, to be competed for by perpetual pupils who have recently obtained their diploma. "The William Brown Exhibition," of £40 per annum, tenable for three years, to be competed for by students during their fourth year of study. The Brackenbury Prizes of £35 each in Medicine and Surgery, awarded annually after a competitive examination. The Treasurer's Clinical Prize of £10 10s., the gift of the Duke of Westminster, to be competed for annually. Sir Charles Clarke's Prize for good conduct: The interest of £200 Consols, to be awarded annually to the student of the Hospital "who, by reason of his general good conduct during the preceding year, should be considered the most deserving." The Thompson Medal: A silver medal to be awarded annually for the best clinical report of medical and surgical cases observed in the Hospital during the preceding twelve months. Sir Benjamin Brodie's Clinical Prize in Surgery will be awarded to the pupil of the Hospital who shall have delivered to the Surgeons the best report of not more than twelve surgical cases which have occurred in the Hospital during the preceding twelve months. Dr. Acland's Clinical Prize in Medicine will be awarded to the pupil of the Hospital who shall produce the best report of not more than twelve medical cases which have occurred in the Hospital during the preceding twelve months. The Henry Charles Johnson Memorial Prize in Anatomy will be awarded to that pupil who shall, in the judgment of the Medical School Committee, exhibit the greatest proficiency in Practical Anatomy. General Proficiency Prizes: To pupils in their first year, £10 10s.; to pupils in their second year, £10 10s.; to pupils in their third year, £10 10s.

FEEES.

Perpetual pupils pay £45 in their first year, £45 in their second year, and £40 in their third year of study, or £125 on entrance.

Gentlemen are admitted to the hospital practice and lectures required for the licensing bodies on payment of the following fees—viz., £45 for the first year of study, £45 for the second year of study, and £20 for the two succeeding years.

Dental pupils are admitted to the required courses on payment of £30 for their first year, and £25 for their second year, including Practical Chemistry.

Pupils may also enter to the hospital practice and lectures separately.

For further particulars apply to Dr. Barclay, Treasurer, or Dr. Wadham, Dean of the School.

GUY'S HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Consulting Physicians—Sir William Gull, Bart., Dr. G. Owen Rees.
Consulting Obstetric Physician—Dr. Henry Oldham.
Consulting Surgeons—Mr. E. Cock, Mr. Birkett.

Physicians.
Dr. S. O. Habershon.
Dr. S. Wilks.
Dr. F. W. Pavy.
Dr. W. Moxon.

Assistant-Physicians.
Dr. C. Hilton Fagge.
Dr. P. H. Pye-Smith.
Dr. Frederick Taylor.
Dr. J. F. Goodhart.

Obstetric Physician.
Dr. J. Braxton Hicks.

Surgeons.
Mr. J. Cooper Forster.
Mr. Thomas Bryant.
Mr. Arthur Durham.
Mr. H. G. Howse.

Assistant-Surgeons.
Mr. N. Davies-Colley.
Mr. R. Clement Lucas.
Mr. C. H. Golding-Bird.
Mr. W. H. A. Jacobson.
Ophthalmic Surgeons.
Mr. C. Bader.
Mr. C. Higgins, Asst.

Assistant Obstetric Physician.
Dr. A. L. Galabin.
Medical Registrar.
Dr. Mahomed.
Curator of the Museum.
Dr. Fagge.

Dental Surgeons.
Mr. S. J. A. Salter.
Mr. H. Moon, *Asst.*
Aural Surgeon.
Mr. W. Laidlaw Purves.
Surgical Registrar.
Mr. C. J. Symonds.

Vaccinator—Mr. R. W. Dunn.
Pathological Registrar—Mr. A. B. Barrow.
Chloroformist—Mr. Charles Moss.
Registrars—Mr. W. W. Cheyne, Mr. Howlett, and Mr. Willcocks.

Dean—Dr. F. Taylor.

WINTER COURSES.—LECTURES.

Anatomy, Descriptive and Surgical—
Mr. Howse and Mr. Davies-Colley.
Chemistry—Dr. Debus and Dr.
Stevenson.
Clinical Medicine—Dr. Habershon,
Dr. Wilks, Dr. Pavy, and Dr.
Moxon.
Clinical Surgery—Mr. Forster, Mr.
Bryant, Mr. Durham, and Mr.
Howse.

Clinical Lectures on Midwifery and
Diseases of Women—Dr. Braxton
Hicks.
Experimental Physics—Prof. A. W.
Reinold.
Medicine—Dr. Wilks and Dr. Pavy.
Physiology—Dr. Pye-Smith.
Surgery—Mr. Bryant and Mr.
Arthur Durham.

DEMONSTRATIONS.

Cutaneous Diseases—Dr. Pye-
Smith.
Morbid Anatomy—Dr. Fagge and
Dr. Goodhart.
Practical Surgery—Mr. Lucas.

Practical Anatomy—Mr. W. H. A.
Jacobson, Mr. R. E. Carrington,
and Dr. Horrocks.
Practical Physiology—Mr. Golding-
Bird.

SUMMER COURSES.—LECTURES.

Botany—Mr. Bettany.
Clinical Medicine—Dr. Fagge, Dr.
Pye-Smith, Dr. F. Taylor, and Dr.
Goodhart.
Clinical Surgery—Mr. Davies-Colley,
Mr. Clement Lucas, Mr. Golding-
Bird, and Mr. Jacobson.
Clinical Lectures on Diseases of
Women—Dr. A. L. Galabin.
Comparative Anatomy and Zoology
—Dr. Brailey.

Dental Surgery—Mr. Moon.
Hygiene—Dr. F. Taylor.
Materia Medica and Therapeutics—
Dr. Moxon.
Medical Jurisprudence—Dr. Steven-
son.
Mental Diseases—Dr. Savage.
Midwifery and Diseases of Women
—Dr. Braxton Hicks.
Ophthalmic Surgery—Mr. Bader.
Pathology—Dr. Fagge.

DEMONSTRATIONS.

Morbid Histology—Mr. Howse. | Practical Chemistry—Dr. Debus.
Operative Surgery—Mr. Lucas.

This Hospital contains 695 beds.

Open Scholarships.—An open Scholarship of the value of
£131 5s. in Classics, Mathematics, Modern Languages. An
open Scholarship of the value of £131 5s. in Science.

PRIZES.

For First Year's Students.—At the end of the summer
session, in Anatomy, Physiology, Chemistry, Materia Medica,
Botany, and Comparative Anatomy: Prizes, £50, £25, and
£10 10s. (presented by one of the Governors). *For Second
Year's Students.*—In the winter session, the Michael Harris
Prize of £10 in Anatomy. Summer session, examination in
Anatomy and Physiology: The Joseph Hoare Prizes of £25
and £10; the Sands-Cox Scholarship of £15 per annum,
tenable for three years—subject, Physiology. *For Third
Year's Students.*—Summer session, examination in Medicine,
Surgery, Midwifery, and Medical Jurisprudence: Prizes £35
and £20. *For Senior Students.*—The Treasurer's Gold Medal
for Clinical Medicine; the Treasurers' Gold Medal for Clinical
Surgery; the Gurney Hoare Prize of £25 for Clinical Medicine
and Surgery.

FEES.

The fees for hospital practice and lectures are as follows:—
A perpetual ticket may be obtained—(1.) By the payment of
£131 5s. on entrance. (2.) By two payments of £66, at
the commencement of the first winter session and the following
summer session. (3.) By the payment of three annual instal-
ments, at the commencement of the sessional year: First year
£50; second year, £50; third year, £37 10s. Materials used
in practical courses are charged extra.

For further information apply to the Dean, Dr. F. Taylor.

KING'S COLLEGE HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Consulting Physicians—Sir Thos. Watson, Bart., M.D., Dr. George Budd,
Dr. Arthur Farre, Dr. W. A. Guy, Dr. W. O. Priestley,
Dr. A. B. Garrod.

Physicians.
Dr. George Johnson.
Dr. Lionel S. Beale.
Dr. Alfred B. Duffin.
Dr. William Playfair.
Dr. J. Burney Yeo.

Assistant-Physicians.
Dr. David Ferrier.
Dr. E. B. Baxter.
Dr. John Curnow.
Dr. T. C. Hayes.

Surgeons.
Mr. John Wood.
Mr. Joseph Lister.
Mr. Henry Smith.
Mr. H. Royes Bell.

Assistant-Surgeons.
Mr. William Rose.
Mr. Gerald Yeo.

Dental Surgeon.
Mr. S. Hamilton Cartwright.

Ophthalmic Surgeon—Mr. J. Soelberg Wells.
Aural Surgeon—Dr. Urban Pritchard.

LECTURES.

Anatomy, Descriptive and Surgical
—Dr. John Curnow.
Botany—Mr. Robert Bentley.
Chemistry and Practical Chemistry
—Mr. C. L. Bloxam; Mr. J. M.
Thomson, Demonstrator; Mr. G.
S. Johnson, Assistant-Demon-
strator.
Clinical Medicine—Dr. G. Johnson.
Clinical Surgery—Mr. John Wood,
Mr. Joseph Lister.
Comparative Anatomy—Mr. F.
Jeffrey Bell.
Dental Surgery—Mr. S. Hamilton
Cartwright.
Forensic Medicine—Dr. D. Ferrier.
Hygiene—Dr. Charles Kelly.
Materia Medica and Therapeutics—
Dr. E. B. Baxter.

Principles and Practice of Medicine
—Dr. L. S. Beale.
Obstetric Medicine, and the Diseases
of Women and Children—Dr. W.
Playfair.
Ophthalmology—Dr. J. Soelberg
Wells.
Pathological Anatomy—Dr. A. B.
Duffin.
Physiology and Practical Physi-
ology—Dr. Gerald F. Yeo.
Psychological Medicine—Dr. Edgar
Sheppard.
Principles and Practice of Surgery
—Mr. Henry Smith.
Surgery and Practical Surgery—Mr.
Henry Smith; Mr. H. Royes Bell,
Mr. W. Rose, and Mr. Gerald F.
Yeo, Demonstrators.

Dean of the Faculty—Professor Bentley.
Sub-Dean and Medical Tutor—Dr. N. I. C. Tirard.

University of London Preliminary Scientific Examination.—
Special courses of lectures and practical work in the chemical,
physical, and physiological laboratories have been arranged
during the winter and summer sessions to meet the require-
ments of the University of London for this examination.

SCHOLARSHIPS AND PRIZES.

Warneford Scholarships: "For the encouragement of the
previous education of medical students," two scholarships of
£25 per annum for three years, one of £25 per annum for two
years, and "For the encouragement of resident medical
students," one scholarship of £25 per annum for two years.
Medical Scholarships: The following are given every year to
matriculated students of this department:—1. One of £40 for
two years, open to students of the third and fourth years;
2. One of £30 for one year, open to students of the second year;
3. One of £20 for one year, open to students of the first year.
Daniell Scholarship: £20, tenable for two years; is open to
every student of the College who has worked in the laboratory
for at least six months. *Sambrooke Registrarships:* Two of
£50 every year. *Science Exhibition:* One annually of £100,
for proficiency in Physics, Chemistry, Botany, and Zoology.
Leathes Prizes: Bible and Prayer-book annually to two
matriculated medical students. *Warneford Prizes:* £40 is
expended annually in the purchase of medals and books as
prizes to two matriculated medical students. *Class Prizes* are
awarded annually of the value of £3 in each subject of study.
Two Medical Clinical Prizes, one of £3 for the winter session,
and the other of £2 for the summer session, and two Surgical
Clinical Prizes of the same value, are given annually for
attendance at the Hospital. *Todd Medical Clinical Prize:*
This prize was founded in memory of the late Dr. Todd, and is
awarded annually. It consists of a bronze medal and books
to the value of £4 4s. *Tanner Prize:* Of the value of £10 in
each year, for proficiency in the study of Obstetric Medicine.

FEES.

The fees for perpetual attendance amount to £125 if paid
in one sum on entrance; or £130 if paid in two instalments—
viz., £70 on entrance and £60 at the commencement of the
second winter session; or £135 if paid in three instalments—
viz., £60 on entrance, £50 at the beginning of the second
winter session, and £25 at the beginning of the third winter
session. Students are, however, recommended to add to the
above the fee for attendance on the medical tutor's class for
one year—viz., £3 3s.; or, in the case of those preparing for
the Preliminary Scientific Examination of the University of
London, £5 5s.

For further information apply to Professor Bentley, Dean
of the Medical Faculty.

LONDON HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Consulting Physician—Dr. Herbert Davies.
Consulting Surgeons—Mr. Luke and Mr. Curling.

Physicians.
Dr. Andrew Clark.
Dr. Ramskill.
Dr. Langdon Down.

Dr. Hughlings-Jackson.
Dr. Sutton.
Dr. Fenwick.

Assistant-Physicians.
Dr. Stephen Mackenzie.
Dr. A. E. Sansom.
Dr. F. Charlewood Turner.
Dr. Barlow.
Dr. Gilbert Smith.

Surgeons.
Mr. Hutchinson.
Mr. Couper.
Mr. Rivington.

Mr. Jas. Adams.
Mr. Waren Tay.
Mr. McCarthy.

Assistant-Surgeon—Mr. Reeves.
Obstetric Physician—Dr. Palfrey.
Assistant Obstetric Physician—Dr. G. E. Herman.

Surgeon-Dentist—Mr. A. W. Barrett.

Surgeons to the Ophthalmic Department—Mr. James Adams and Mr. Waren Tay.

Surgeon to the Aural Department—Mr. A. Gardiner Brown.

Physician to the Skin Department—Dr. S. Mackenzie.

LECTURES.

Anatomy and Pathology of the Teeth—Mr. A. W. Barrett.
Botany—
Chemistry—Dr. C. Meymott Tidy.
Comparative Anatomy—Dr. E. B. Aveling.
Descriptive and Surgical Anatomy—Mr. Walter Rivington.
Diseases of the Throat and Use of the Laryngoscope—Dr. Morell Mackenzie.
Forensic Medicine—1. Toxicology, Mr. J. E. D. Rodgers; 2. Medical Jurisprudence and Public Health, Dr. C. Meymott Tidy.
Materia Medica and General Therapeutics—Dr. M. Prosser James.

Medicine—Dr. Sutton.
Midwifery and Diseases of Women—Dr. James Palfrey.
Pathology and Demonstrations of Morbid Anatomy—Dr. H. G. Sutton and Dr. S. Mackenzie.
Practical Anatomy—Dr. Wilson.
Practical Chemistry—Dr. C. Meymott Tidy.
Practical Histology, and Use of the Microscope—Mr. J. McCarthy.
Physiology and General Anatomy—Mr. J. McCarthy.
Ophthalmic Surgery—Mr. J. Couper.
Operative Surgery—
Surgery—Mr. John Couper.
Aural Surgery—Mr. Gardiner Brown.

Principal—Dr. Norman Chevers.

SCHOLARSHIPS AND PRIZES.

Nine scholarships will be offered for competition during the ensuing winter and summer sessions.

Two Entrance Scholarships in Natural Science, of the value of £60 and £40 respectively, will be offered for competition at the end of September. The subjects will be Physics, Botany, Zoology, and Inorganic Chemistry.

The two Buxton Scholarships will be awarded in October to the students who distinguish themselves most in the subjects appointed by the General Council of Medical Education and Registration as the subjects of the preliminary examinations. 1. A scholarship, value £30, to the student placed first in the examination. 2. A scholarship, value £20, to the student placed second in the examination. 3. A scholarship, value £20, will be awarded to the first-year student who shall pass in April, 1878, the best examination in Human Anatomy. 4. A scholarship, value £25, will be awarded to the first-year or second-year student who shall pass at the end of the winter session the best examination in Anatomy, Physiology, and Chemistry. 5. A hospital scholarship, value £20, for proficiency and zeal in Clinical Medicine. 6. A hospital scholarship, value £20, for proficiency and zeal in Clinical Surgery. 7. A hospital scholarship, value £20, for proficiency and zeal in Obstetrics (awarded at the end of June, 1878). The Duckworth-Nelson Prize, value £10, will be awarded by competition biennially, and will be open to all students who have not completed their education. The subjects of examination will be Practical Medicine and Surgery. Money prizes, to the value of £60 per annum, are awarded by the House Committee to the most meritorious of the dressers in the out-patient rooms who have passed their first college examination.

The Hospital contains nearly 800 beds, and the number of in-patients last year amounted to more than 7000.

Owing to the great size of the Hospital, the appointments are necessarily numerous and most valuable. They are all free to full students without additional fee.

The resident appointments consist of five House-Physicians, four House-Surgeons, and one Accoucheurship, each being tenable for six months. There are also two Resident Dressers and two Maternity Assistants, the holders of which appointments are required to have passed the primary examination at the College of Surgeons.

Attached to the Pathological Department of the London Hospital is a laboratory, under the supervision of Dr. Sutton, which contains a large number of microscopic sections, carefully indexed and recorded. This important addition is entirely due to the liberality of the Hospital authorities, and was made a part of the new "Grocers' Wing."

FEES.

Perpetual fee for attendance on all the lectures with two years' Practical Anatomy, and for attendance on medical and surgical practice, qualifying for examination at most of the medical and surgical boards, £9+10s. if paid in one sum, or £105 in three instalments of £12, £36 15s., and £26 5s., at the

commencement of the first, second, and third years respectively; composition fee for gentlemen entering at or before the beginning of their second winter session, their first year having been spent elsewhere, £78 15s.; perpetual fee for lectures alone, £52 10s.; perpetual fee for hospital practice alone, £52 10s. Extra fees: Practical Chemistry (for apparatus, etc.), £2 2s.; Practical Physiology do., £7 7s.; subscription to the library (compulsory), £1 1s. The composition fee is payable in two instalments of £42 and £36 15s.

Medical graduates of Universities who have attended lectures in Anatomy, Physiology, Chemistry, Botany, or Comparative Anatomy, and have obtained signatures for such attendance, fulfilling the requirements of the Examining Boards, may become pupils of the London Hospital, eligible for all hospital prizes and appointments, on payment of the fee of £52 10s. for practice (perpetual) at the Hospital.

Communications addressed to the Principal, at the London Hospital Medical College, Turner-street, Mile-end, London, E., will receive immediate attention.

ST. MARY'S HOSPITAL.

MEDICAL OFFICERS.

Consulting Medical Officers.

Sir James Alderson, M.D., F.R.S., Dr. Chambers, Mr. Lane, Mr. Spencer Smith, Mr. White Cooper.

Physicians.

Dr. Handfield Jones, F.R.S.
Dr. Sieveking.
Dr. Broadbent.

Assistant-Physicians.

Dr. Cheadle.
Dr. Shepherd.
Dr. Farquharson.

Surgeons.

Mr. Haynes Walton.
Mr. James R. Lane.
Mr. Norton.

Assistant-Surgeons.

Mr. Edmund Owen.
Mr. Herbert W. Page.
Mr. Pye.

Physician-Accoucheur—Dr. Alfred Meadows.

Assistant Physician-Accoucheur—Dr. Wiltshire.

Physicians in charge of the Department for Diseases of the Skin—Dr. Cheadle, Dr. Farquharson.

Surgeon in charge of the Ophthalmic Department—Mr. Haynes Walton.

Surgeon in charge of the Department for Diseases of the Throat—Mr. Norton.
Aural Surgeon—Mr. G. Field.

Surgeon-Dentist—Mr. Howard Hayward.

Instructor in Vaccination—Mr W. A. Sumner.

LECTURES.—WINTER SESSION.

Anatomy—Mr. Owen.
Clinical Medicine—Dr. Handfield Jones, Dr. Sieveking, and Dr. Broadbent.
Clinical Surgery—Mr. Haynes Walton, Mr. J. R. Lane, and Mr. Norton.
Chemistry and Natural Philosophy—Dr. C. R. A. Wright.
Dissections—Mr. J. E. Juler, Demonstrator; Mr. R. P. Griffin, Assistant Demonstrator.

Dental Surgery—Mr. Howard Hayward.
Medicine—Dr. Broadbent.
Pathology—Dr. Cheadle.
Physiology—Mr. Pye.
Practical Physiology—Dr. Shepherd.
Practical Surgery—Mr. Herbert W. Page.
Surgery—Mr. James R. Lane and Mr. Norton.

SUMMER SESSION.

Aural Surgery—Mr. G. Field.
Botany—Rev. J. M. Crombie.
Comparative Anatomy—Mr. St. George Mivart, F.R.S.
Diseases of the Skin—Dr. Cheadle and Mr. Malcolm Morris.
Medical Jurisprudence—Dr. Randall.

Materia Medica—Dr. Farquharson.
Midwifery—Dr. Meadows and Dr. Wiltshire.
Ophthalmic Surgery—Mr. Haynes Walton.
Practical Chemistry—Dr. C. R. A. Wright.

The Hospital contains 190 beds—88 medical, and 102 surgical. There are special departments for the Diseases of Women and Children, and for Diseases of the Eye, the Ear, the Skin, and the Throat.

SCHOLARSHIPS, PRIZES, ETC.

Two Scholarships in Natural Science, tenable for three years, the first of a total value of £150, the second of a total value of £125. These are awarded by open competitive examination at the commencement of the winter session. A Scholarship in Anatomy, of the annual value of £40 (the holder of which is styled Assistant-Demonstrator, and assists in the teaching of Practical Anatomy), is offered for competition amongst those students who have completed their second winter session; and a Scholarship in Pathology, of the value of £40 (the holder of which is styled Assistant-Curator), for those students who have completed their third winter session. Examinations for prizes are held at the termination of each session in the various classes for students of the first, second, and third year. Two Prosectors are appointed annually, who each receive a certificate and £5 for their services in the dissecting-room.

FEES.

The entrance fee may be paid in instalments by arrangement with the Dean of the School. Students who have kept the two years' course at the University of Cambridge are

admitted as perpetual pupils on payment of £72 9s., and those who have kept a portion of the course elsewhere at a proportionate reduction. A fee of £1 1s. is required to be paid to the library and reading-room. Instruction in vaccination can be obtained; fee £1 1s.

Further information may be obtained from Dr. Shepherd, Dean of the School; or from the Registrar, at the Hospital.

MIDDLESEX HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Consulting Physicians—Dr. A. P. Stewart, Dr. Goodfellow, Dr. Henry Thompson.

Consulting Surgeon—Mr. Shaw, Mr. Nunn.

Consulting Dental Surgeon—Mr. Tomes, F.R.S.

Physicians.

Dr. Greenhow, F.R.S.
Dr. Cayley.
Dr. Robert King.

Assistant-Physicians.

Dr. Sidney Coupland.
Dr. Douglas Powell.
Dr. David Finlay.

Surgeons.

Mr. Hulke, F.R.S.
Mr. Lawson.
Mr. Morris.

Assistant-Surgeons.

Mr. Andrew Clark.
Mr. Robert Lyell.

Obstetric Physician—Dr. Hall Davis.

Physician to Skin Department—Dr. Robert Liveing.

Assistant Obstetric Physician—Dr. Arthur Edis.

Ophthalmic Surgeon—Mr. Critchett.

Dental Surgeon—Mr. Turner.

Curator of Museum and Pathologist—Dr. Sidney Coupland.

Registrars—Dr. D. W. Finlay and Mr. R. W. Lyell.

Resident Medical Officer—Mr. E. A. Fardon.

Chloroformist—Mr. G. Everitt Norton.

LECTURES.—WINTER SESSION.

Chemistry—Mr. Wm. Foster.
Clinical Lectures on Medicine and Surgery—The Physicians and Surgeons.
Clinical Lectures on Diseases of Women and Children—Dr. J. Hall Davis.
Descriptive and Surgical Anatomy—Mr. Morris.
Pathological Anatomy—Dr. Coupland.

Physiology and General Anatomy—Mr. B. Thompson Lowne.
Practical Demonstrations on Diseases of the Eye—Mr. Critchett.
Practical Surgery—Mr. Morris and Mr. Andrew Clark.
Principles and Practice of Medicine—Dr. Cayley.
Principles and Practice of Surgery—Mr. Hulke and Mr. George Lawson.

SUMMER SESSION.

Botany—Mr. Hensman.
Clinical Lectures on Medicine and Surgery—The Physicians and Surgeons.
Clinical Lectures on Diseases of the Eye—Mr. Critchett.
Comparative Anatomy and Zoology—Mr. Hensman.
Materia Medica and Therapeutics—Dr. Thorowgood.
Medical Jurisprudence—Dr. R. King.
Midwifery and Diseases of Women and Children—Dr. J. Hall Davis.

Diseases of the Skin—Dr. Robert Liveing.
Practical Demonstrations on Diseases of Women and Children—Dr. Arthur Edis.
Practical Demonstrations on Diseases of the Larynx and Ear—Mr. Andrew Clark.
Practical Physiology and Histology—Mr. B. Thompson Lowne.
Practical Chemistry—Mr. Wm. Foster.
Psychological Medicine—Mr. Henry Case, Supt. Leavesden Asylum.
Public Health—Dr. Robert King.

This Hospital contains 310 beds, of which 190 are for surgical and 120 for medical cases. There is a special department for Cancer cases, affording accommodation for thirty-three in-patients, whose period of residence in the Hospital is unlimited. Wards are also appropriated for the reception of cases of Uterine Disease and of Syphilis, and beds are set apart for patients from Diseases of the Eye. There are special out-patient departments for Diseases of the Skin, the Throat, the Eye and Ear.

PRIZES AND SCHOLARSHIPS.

Two Entrance Scholarships of the annual value of £25 and £20, tenable for two years, are afforded for competition at the commencement of the winter session.

Two Broderip Scholarships of the annual value of £30 and £20, tenable for two years, and a clinical prize of £10 10s., are annually awarded to those students who pass the most satisfactory examination at the bedside, and in the post-mortem room.

The Murray Scholarship is open to all general students, and will next be awarded in 1880. Examinations in Medicine, Surgery, and Midwifery.

The Governors' Prize of £21 is awarded annually to the student who shall have most distinguished himself during his three years' curriculum.

FEES.

The fee for attendance on the hospital practice and lectures required by the Colleges of Physicians and Surgeons and the Society of Apothecaries is £90 if paid in advance, or £35 on entrance, £35 at the beginning of the second winter session, £20 at the beginning of the third winter session, and £10 for every additional year's attendance.

Dental students who intend to become Licentiates in Dental Surgery of the Royal College of Surgeons are admitted to attend the requisite courses of lectures and hospital practice on payment of a fee of £42, either in one payment or by instalments of £26 5s. on entrance, and £15 15s. at the beginning of the second winter session.

ST. THOMAS'S HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Honorary Consulting Physicians—Dr. Barker, Dr. J. Risdon Bennett, Dr. Peacock.

Honorary Consulting Surgeons—Mr. F. Le Gros Clark, Mr. Simon, C.B.
Consulting Ophthalmic Surgeon—R. Liebreich, Esq.

Physicians.

Dr. Bristowe.
Dr. Stone.
Dr. Ord.
Dr. Harley.

Obstetric Physician.

Dr. Gervis.

Assistant-Physicians.

Dr. Payne.
Dr. Greenfield.
Vacant.

Assistant Obstetric Physician.

Dr. Cory.

Resident Assistant-Physician.

Dr. Sharkey.

Surgeons.

Mr. Sydney Jones.
Mr. Croft.
Mr. Mac Cormac.
Mr. Mason.

Ophthalmic Surgeon.

Mr. Nettleship.

Assistant-Surgeons.

Mr. W. W. Wagstaffe.
Mr. A. O. MacKellar.
Mr. H. H. Clutton.

Dental Surgeon.

Mr. J. W. Elliott.

Assistant Dental Surgeon.

Mr. W. G. Ranger.

Resident Assistant-Surgeon.

Mr. B. Pitts.

Anæsthetist—Mr. S. Osborn.

Demonstrators of Morbid Anatomy—Dr. Reid and Dr. Sharkey.

Analytical Chemist of the Hospital—Dr. Albert J. Bernays.

Curator to the Museum—Mr. C. Stewart.

Apothecary—Mr. Plowman.

Medical Registrar—Mr. W. B. Hadden, M.B.

Surgical Registrar—Mr. Percy Potter.

Secretary—Dr. Gillespie.

Dean—Dr. Ord.

LECTURES AND DEMONSTRATIONS.

Medicine—Dr. Bristowe and Dr. Ord.
Clinical Medicine—Dr. Bristowe, Dr. Stone, Dr. Ord, and Dr. Harley.
Obstetric Clinical Medicine—Dr. Gervis.
Surgery—Mr. Sydney Jones and Mr. Mac Cormac.
Clinical Surgery—Mr. S. Jones, Mr. Croft, Mr. Mac Cormac, and Mr. Masou.
General Pathology—Dr. Payne.
Descriptive Anatomy—Mr. Francis Mason and Mr. W. W. Wagstaffe.
General Anatomy and Physiology—Dr. John Harley.
Practical Physiology—Dr. T. C. Charles.

Ophthalmic Surgery—Mr. Nettleship.
Chemistry and Practical Chemistry—Dr. Bernays.
Midwifery and the Diseases of Women and Children—Dr. Gervis.
Physics and Natural Philosophy—Dr. Stone.
Materia Medica and Therapeutics—Dr. Stone.
Forensic Medicine—Dr. Payne and Dr. Cory.
Pathol. Anatomy—Dr. Greenfield.
Botany—Mr. A. W. Bennett.
Comparative Anatomy—Mr. C. Stewart.
Mental Diseases—Dr. H. Rayner.
State Medicine—Dr. A. Carpenter.

TEACHERS OF PRACTICAL SUBJECTS AND DEMONSTRATORS.

Practical Chemistry—Dr. Bernays.
Practical and Manipulative Surgery—Mr. Croft and Mr. MacKellar.
Demonstrations in Anatomy—Mr. Wagstaffe, Dr. Reid, Mr. Taylor, Mr. Haslam, and Assistants.
Demonstrations in Microscopical Anatomy—Mr. Rainey.
Demonstrations of Morbid Anatomy—Dr. Reid and Dr. Sharkey.

Demonstrations in Physiology and in Pract. Physiology—Mr. Hutton.
Diseases of the Eye—Mr. Nettleship.
Diseases of the Skin—Dr. Payne.
Diseases of the Throat—Dr. Greenfield.
Diseases of the Ear—Mr. Clutton.
Diseases of the Teeth—Mr. J. W. Elliott and Mr. W. G. Ranger.

PRIZES AND APPOINTMENTS.

Entrance Scholarships of £60 and £40, awarded after an examination in Physics and Chemistry, with either Botany or Zoology, whichever the candidate may choose.

First Year's Prizes.—Winter: The Wm. Tite Scholarship of £30; College Prizes—£20 and £10. Summer Prizes: £15, £10, and £5.

Second Year's Prizes.—Winter: The College Scholarship of £42, tenable for two years; College Prizes—£20 and £10. Summer Prizes: £15, £10, and £5. The Dresserships and the Clinical and Obstetrical Clerkships are open to students who have passed the primary examinations at the Royal College of Surgeons without extra charge.

Third Year's Prizes.—Winter: £20, £15, and £10. The Cheselden Medal, awarded after a special examination in Surgical Anatomy and Surgery. The Mead Medal, awarded after a special examination in Practical Medicine and Hygiene. The Solly Medal, biennially, with a prize of at least £10 10s. for a collection of surgical reports. The Treasurer's Gold Medal, for general proficiency during the entire course of study. The Grainger Testimonial Prize, of the value of £20, will be awarded biennially to the third or fourth year's students for a physiological essay, to be illustrated by preparations.

FEES.

Gentlemen are informed that the admission fees to practice and to all the lectures may be paid in one of three ways, entitling to unlimited attendance—1st, £125, paid on entrance, entitle a student to unlimited attendance; 2nd, £130 in two payments, of £70 on entrance and £60 at beginning of next year; 3rd, by three instalments, of £60 the first year, £50 the second, and £30 the third. Special arrangements are made for students entering in second or subsequent years, and for Dental students; and separate entries may be made to any course of lectures, or to the hospital practice.

There are special departments for Diseases of the Eye, Diseases of Women and Children, Vaccination, Diseases of the skin, Diseases of the Teeth, and Mental Diseases.

Visits to wards now take place at 2 p.m.

For further information, apply to Dr. Gillespie, Secretary, St. Thomas's Hospital, London, S.E.

UNIVERSITY COLLEGE HOSPITAL.

MEDICAL AND SURGICAL STAFF.

<i>Consulting-Physicians.</i> Dr. Walter H. Walsue. Dr. J. Russell Reynolds. Sir William Jenner, Bart.	<i>Consulting-Surgeons.</i> Mr. Richard Quain. Mr. J. Eric Erichsen. Sir Henry Thompson.
<i>Physicians.</i> Dr. Wilson Fox. Dr. Sydney Ringer. Dr. H. Charlton Bastian. Dr. F. T. Roberts.	<i>Surgeons.</i> Mr. Marshall. Mr. Berkeley Hill. Mr. Christopher Heath.
<i>Obstetric Physician.</i> Dr. Graily Hewitt.	<i>Assistant-Surgeons.</i> Mr. Marcus Beck. Mr. A. Barker. Mr. R. J. Godlee.
<i>Physician to the Skin Department.</i> Dr. Radcliffe Crocker.	<i>Ophthalmic Surgeons.</i> Mr. Wharton Jones. Mr. J. F. Streatfeild.
<i>Assistant-Physicians.</i> Dr. W. R. Gowers. Dr. G. V. Poore.	<i>Dental Surgeon.</i> Mr. G. A. Ibbetson.
<i>Assistant Obstetric Physician.</i> Dr. John Williams.	
<i>Assistant Professors of Clinical Medicine</i> —Dr. W. R. Gowers and Dr. G. Vivian Poore.	
<i>Assistant Professors of Clinical Surgery</i> —Mr. Marcus Beck and Mr. A. Barker.	
<i>Assistant Professor of Midwifery</i> —Dr. John Williams.	
<i>Surgical Registrar</i> —Mr. A. Q. Silcock, B.S.	
<i>Resident Medical Officer</i> —Mr. G. C. Henderson, M.B.	

LECTURES.—WINTER SESSION.

Chemistry—Dr. Williamson.	Descriptive Anatomy—Mr. Thane;
Clinical Medicine—Dr. W. Fox, Dr. S. Ringer, Dr. Bastian, Dr. Poore, Dr. Gowers.	Demonstrations—Mr. G. D. Thane, Mr. Rickman J. Godlee, Mr. R. S. Miller, Mr. R. Williams, Mr. U. A. H. Horsley, Mr. H. F. Stokes, Mr. H. R. Woolbert, Mr. T. Hoskin.
Clinical Midwifery—Dr. G. Hewitt, Dr. John Williams.	Medicine—Dr. Sydney Ringer.
Clinical Surgery—Mr. Erichsen, Mr. Marshall, Sir H. Thompson, Mr. C. Heath, Mr. W. Jones, Mr. Streatfeild, Mr. Beck, and Mr. Barker.	Practical Surgery—Mr. B. Hill, Mr. M. Beck, Mr. E. A. Barker.
Dental Surgery—Mr. Ibbetson.	Physiology and General Anatomy—Dr. B. Sanderson.
Surgery—Mr. Marshall.	Skin Diseases—Mr. R. Crocker.

SUMMER SESSION.

Botany—Professor Oliver.	Morbid Anatomy and Pathology—Dr. H. C. Bastian.
Comparative Anatomy—Mr. E. R. Lankester.	Natural Philosophy—Prof. G. C. Foster.
Forensic Medicine—Dr. Maudsley.	Ophthalmic Surgery—Mr. W. Jones.
Histology and Practical Physiology—Dr. B. Sanderson, Mr. Schäfer.	Operative Surgery—Mr. M. Beck.
Hygiene—Dr. Cortfield.	Practical Chemistry—Dr. Williamson.
Materia Medica—Dr. F. T. Roberts.	Practical Pharmacy—Mr. Gerrard.
Midwifery—Dr. Graily Hewitt.	

SCHOLARSHIPS AND EXHIBITIONS.

The Atkinson-Morley Surgical Scholarship, of £45 per annum, tenable for three years, is awarded every year for proficiency in the theory and practice of Surgery. Atchison Scholarship, value about £55, tenable for two years, for general proficiency. The Sharpey Physiological Scholarship, of about £70 a year, for proficiency in Biological Science. The Filliter Prize of £30, for proficiency in Pathological Anatomy. Dr. Fellowes' Clinical Medals, one gold and one silver, each winter and summer session, and certificates of honour, for reports and observations on the Medical cases of the Hospital. The Liston Gold Medal, and certificates of honour, for reports and observations on the Surgical cases in the Hospital. The Alexander Bruce Gold Medal, for Pathology and Surgery. The Cluff Memorial Prize, awarded every other year for proficiency in Anatomy, Physiology, and Chemistry. Gold and silver medals, as well as certificates of honour, are awarded as class prizes. The Jews' Commemoration Scholarship of £15 a year, tenable for two years, for general proficiency in the Faculty of Arts or of Science, for students of one year's standing; Tuffnell

Scholarship, £100 tenable for two years, for proficiency in Chemistry; and the Clothworkers' Exhibition for Chemistry and Physics, of £50 a year, tenable for two years, may be held by students who, after obtaining it, enter the Medical Faculty. The Morris Bursary of £25, tenable for two years, may be awarded in 1880.

ENTRANCE EXHIBITIONS.

Three Entrance Exhibitions, of the respective value of £30, £20, and £10 per annum, tenable for two years, are awarded upon examination to gentlemen who are about to commence their first winter's attendance in a medical school.

FEES.

For the lectures and hospital practice for the licences of the Royal College of Physicians, Society of Apothecaries, and M.R.C.S., £131 5s. if paid in one sum; or first year, £63; second year, £52 10s; third year, £21.

Further information and detailed prospectuses may be obtained from the College, Gower-street, W.C.

WESTMINSTER HOSPITAL.

HOSPITAL STAFF.

<i>Consulting Physicians and Surgeons</i> —Dr. Kingston, Dr. Radcliffe, Mr. Barnard Holt, Mr. Holthouse.	
<i>Physicians.</i> Dr. Fincham. Dr. Sturges. Dr. Allchin.	<i>Surgeons.</i> Mr. Cowell. Mr. Richard Davy. Mr. Macnamara.
<i>Assistant-Physicians.</i> Dr. Horatio Donkin. Dr. De Havilland Hall. Dr. Hughes Bennett.	<i>Assistant-Surgeons.</i> Mr. T. Cooke. Mr. T. Bond. Mr. Gould.
<i>Obstetric Physician</i> —Dr. Potter.	
<i>Assistant Obstetric Physician</i> —Dr. Grigg.	
<i>Surgeon in charge of the Ophthalmic Department</i> —Mr. Cowell.	
<i>Surgeon in charge of the Orthopædic Department</i> —Mr. R. Davy.	
<i>Surgeon in charge of the Skin Department</i> —Mr. Bond.	
<i>Surgeon in charge of the Aural Department</i> —Mr. Keene.	
<i>Dental Surgeon</i> —Mr. Walker.	

LECTURERS.

Anatomy—Mr. A. Pearce Gould.	Medicine—Dr. Fincham, Dr. Sturges.
Aural Surgery—Mr. Keene.	Metallurgy—Dr. Dupré.
Botany—Mr. Worsley-Benison.	Midwifery and Diseases of Women—Dr. Potter.
Chemistry—Dr. Dupré.	Natural Philosophy—Mr. Brooke.
Clinical Medicine—Dr. Radcliffe, Dr. Fincham, Dr. Sturges, Dr. Allchin.	Ophthalmic Surgery—Mr. Cowell.
Clinical Surgery—Mr. Holt, Mr. Holthouse, Mr. Cowell, Mr. Davy, Mr. Macnamara.	Pathology and Morbid Anatomy—Dr. Allchin.
Comparative Anatomy—Dr. Carter Blake.	Physiology—Dr. Allchin.
Dental Surgery—Mr. Walker.	Practical Chemistry—Dr. Dupré.
Diseases of the Skin—Mr. Bond.	Practical Surgery—Mr. Cowell, Mr. Richard Davy.
Forensic Medicine and Hygiene—Mr. Bond, Dr. Dupré.	Practical Physiology and Histology—Dr. Murrell.
Materia Medica and Therapeutics—Dr. Phillips.	Psychological Medicine—Dr. Sutherland.
<i>Treasurer of the School</i> —Mr. Cowell.	Surgery—Mr. Cowell, Mr. Davy.
<i>Sub-Dean</i> —Mr. Gould.	<i>Dean of the School</i> —Dr. Allchin.
<i>Tutors</i> —Dr. De Havilland Hall and Mr. Miller.	

DEMONSTRATORS.

Anatomy—Mr. Black.	Morbid Anatomy—The Pathologist.
Minor Surgery and Bandaging—	

In addition to the practice of the Hospital, which contains 201 beds, and has just been enlarged and improved, the general students of this school are admitted to the practice of the Royal Westminster Ophthalmic Hospital, and to that of the National Hospital for Epilepsy and Paralysis.

PRIZES.

Entrance Scholarships (next October): The Houldsworth, £50 a year for two years; and two others, value £50 and £20. Subjects—Latin, Mathematics, French or German, and Chemistry and Natural Philosophy. The Latin books the same as the June examination of the University of London matriculation—Cicero: De Senectute, and the first speech against Catiline. There are also an Exhibition, value £10 10s., for first year's men; a Scholarship in Anatomy and Physiology, value £21, for second year's men; Prizes for Clinical Medicine and Surgery of £5 each; the Frederic Bird Medal and Prize, value £15; the Chadwick Prize for general proficiency, value £21; numerous dresserships and clerkships; the posts of Medical and Surgical Registrar, each with £40 a year; and of House-Physician, House-Surgeon, Resident Obstetric Assistant, Assistant House-Surgeon, Physician's Assistant, Surgeon's Assistant, Ophthalmic Assistant, and Assistant in the Skin Department.

FEES.

The entry fee to lectures and hospital practice required by the College of Physicians and Surgeons and the Society of

Apothecaries may be paid in one sum of £92 10s.; in two payments of £49 each, at the commencement of the first two years; or in five payments, amounting to £107 2s., at the commencement of the first five sessions. The fees for Dental Students are £45 in one sum, or £32 and £18 respectively at the commencement of each academic year.

Full particulars as to the preliminary scientific and tutorial classes, the courses of lectures and mode of instruction, will be found in the published Calendar, and any further information may be obtained by personal application to Dr. Allechin, the Dean of the School, or to Mr. Gould, the Sub-Dean.

PROVINCIAL MEDICAL SCHOOLS.

OXFORD.

THERE is no School of Medicine at Oxford.

CAMBRIDGE.

The winter session will commence on October 7. The following is a list of the classes and lectures in the Cambridge University School of Medicine:—

WINTER COURSES.

Anatomy—Professor Humphry and the Demonstrator (Mr. Crighton)	Materia Medica—Professor Latham.
Anatomy and Physiology—Professor Humphry.	Medicine—Professor Paget.
Chemistry—Professor Liveing.	Physics—Professor Maxwell.
Dissections — Professor Humphry and the Demonstrator.	Practical Chemistry — Professor Liveing and Mr. Hicks.
(Superintendence of Dissections by the Professor and Demonstrators.)	Physiology—Dr. Michael Foster.
	Zoology and Comparative Anatomy — Professor Newton.

SUMMER COURSES.

Botany—Professor Babington.	Human Osteology—Prof. Humphry.
Chemistry and Practical Chemistry—Professor Liveing and Mr. Hicks.	Pathology—Dr. Bradbury.
Comparative Anatomy, Dissections — Mr. Bridge.	Practical Physiology—Dr. Michael Foster.
	Practical Histology—Dr. Creighton.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

This Hospital contains 120 beds.

MEDICAL AND SURGICAL STAFF.

<i>Physicians.</i>	<i>Surgeons.</i>
Dr. Paget.	Mr. Lestougeon.
Dr. Latham.	Dr. Humphry.
Dr. Bradbury.	Mr. Carver.

Fees for attendance upon the practice (medical and surgical), £15 15s. for an unlimited period; £10 10s. for one year; £8 8s. for six months.

THE QUEEN'S COLLEGE, BIRMINGHAM.

WINTER SESSION.

Chemistry—Dr. A. Bostock Hill.	Medicine—Professor Foster.
Demonstrations on Practical Anatomy—Mr. Bennett May and Mr. Henry Eales.	Pathology—Professor Rickards.
Descriptive and Surgical Anatomy — Professors Thomas and Jolly.	Physiology — Professors Norris, Bartleet, and Carter.
	Surgery — Professors Pemberton and Furneaux Jordan.

SUMMER SESSION.

Botany—Professor Hinds.	Forensic Medicine and Toxicology — Professor J. St. S. Wilders.
Comparative Anatomy—Professor Saundby.	Midwifery — Professors Clay and Bassett.
Dental Surgery—Prof. Howkins.	Ophthalmic Surgery — Professor Solomon.
Diseases of Women and Children—Professors Beiry and R. C. Jordan.	Practical Chemistry — Professor A. Bostock Hill.
Materia Medica—Professor Sawyer.	

Operative Surgery—Professors Pemberton and Jordan.

SCHOLARSHIPS AND PRIZES.

The Sands Cox Prize.—A prize of the value of £20 is given annually in the Medical Department, in accordance with the Act of Parliament, "in commemoration of the exertions of Mr. William Sands Cox in founding and supporting the College. This prize is open to students who have completed their curriculum, and is awarded after examination in Medicine, Surgery, and Midwifery. Every candidate is required to produce a certificate of good conduct from the Warden. The examination for this prize in 1880 will be held in the third week in March. The Ingleby Scholarships.—Two Ingleby Scholarships, founded in memory of the late Dr. Ingleby, formerly Professor of Midwifery in this School, will be awarded annually, after examination in Obstetric Medicine and Surgery and Diseases of Women and Children. These scholarships are open to students who have completed the first two years of their curriculum in this College. Class Prizes.—Medals and certificates of honour are awarded annually in each class after examination.

THE GENERAL AND QUEEN'S HOSPITALS, BIRMINGHAM.

GENERAL HOSPITAL STAFF.

Consulting Physician—Dr. Bell Fletcher.
Consulting Surgeon—Mr. D. W. Crompton.

Physicians.

Dr. Russell.
Dr. Wade.
Dr. Foster.
Dr. Rickards.

Surgeons.

Mr. Alfred Baker.
Mr. Oliver Pemberton.
Mr. T. H. Bartleet.
Mr. W. P. Goodall.
Mr. Robert Jolly.

Assistant-Physicians.

Dr. R. Saundby.
Dr. G. A. Gibson.

Assistant-Surgeons.

Mr. W. G. Archer.
Mr. T. F. Chavasse.

Obstetrical Medical Officer—Dr. Edward Malins.

Resident Medical Officer—Dr. H. Malet.

Resident Surgeon and Surgical Tutor—Mr. Alex. F. Hawkins.

Registrar and Pathologist—Mr. H. G. Lowe.

QUEEN'S HOSPITAL STAFF.

Physicians.

Dr. Heslop.
Dr. Sawyer.
Dr. Carter.
Dr. Hunt.

Surgeons.

Mr. West.
Mr. Gamgee.
Mr. Furneaux Jordan.
Mr. J. St. S. Wilders.

Obstetric Surgeon—Mr. John Clay.

Ophthalmic Surgeon—Mr. Priestly Smith.

Dental Surgeon—Mr. Charles Sims.

House-Physicians—Dr. Wood and Mr. W. H. Osborn.

House-Surgeons—Mr. G. J. Lloyd and Mr. J. Brett.

CLINICAL PRIZES.

The following prizes will be given annually:—Senior Medical Prizes, for third or fourth year students: First Prize: £5 5s.; Second Prize, £3 3s. Senior Surgical Prizes: First Prize, £5 5s.; Second Prize, £3 3s. Junior Medical Prizes, for second year students: First Prize, £3 3s.; Second Prize, £2 2s. Junior Surgical Prizes: First Prize, £3 3s.; Second Prize, £2 2s. Midwifery Prize, £4 4s.

The examination for all the above-mentioned appointments and prizes will be conducted by the Clinical Board, and will be open for competition to all students registered by the Clinical Board.

BRISTOL SCHOOL OF MEDICINE.

COURSES OF LECTURES.—WINTER SESSION.

Chemistry—Mr. Thomas Coomber.	Physiology — Dr. R. Shingleton Smith.
Descriptive and Surgical Anatomy — Mr. F. Richardson Cross.	Practical Anatomy—Demonstrator: Mr. William H. Harsant.
Medicine—Dr. William H. Spencer and Dr. E. Markham Skerrett.	Surgery—Mr. Nelson C. Dobson.

SUMMER SESSION.

Botany—Mr. Adolph Leipner.	Operative Surgery and Surgical Pathology—Mr. W. Powell Keall.
Comparative Anatomy—Mr. W. J. Sollas.	Pathology and Morbid Anatomy—Dr. William H. Spencer and Dr. E. Markham Skerrett.
Materia Medica and Therapeutics—Mr. John E. Shaw.	Practical Chemistry—Mr. Thomas Coomber.
Medical Jurisprudence—Dr. Reginald Eager and Mr. Walter W. Stoddart.	Practical Physiology and Histology — Mr. George F. Atchley.
Midwifery and Diseases of Women—Dr. Joseph G. Swayne and Dr. A. E. Aust-Lawrence.	Practical Surgery—Mr. Arthur W. Prichard.

BRISTOL ROYAL INFIRMARY.

MEDICAL AND SURGICAL STAFF.

Honorary and Consulting Physicians—Dr. William Budd, Dr. Alexander Fairbrother, Dr. Frederick Brittan, and Dr. Edward Long Fox.
Honorary and Consulting Surgeons—Mr. John Harrison, Mr. Augustus Prichard, and Mr. Crosby Leonard.

Physicians.

Dr. William H. Spencer.
Dr. R. Shingleton Smith.

Dr. Henry Waldo.
Mr. John E. Shaw.

Surgeons.

Mr. Edmund C. Board.
Mr. Christopher H. Dowson.

Mr. Arthur W. Prichard.
Mr. F. Richardson Cross.

Mr. J. Greig Smith.

Assistant-Surgeon—Mr. William H. Harsant.

House-Physician—Mr. James Scott.

House-Surgeon—Dr. G. Herbert Lilley.

Medical Superintendent—Mr. J. H. Lee Macintire.

This Infirmary was founded in the year 1735, and is one of the largest provincial hospitals in England. It contains 250 beds.

PRIZES.

Supple's Medical Prize, consisting of a gold medal of the value of £5 5s., and about £7 7s. in money, is given annually to the successful candidate in an examination held by the Physicians. The examination comprises reports of cases in the medical wards, and the preparation of morbid specimens illustrative of disease, accompanied, if possible, by microscopic and chemical illustrations, besides written replies to questions in Medicine.

Supple's Surgical Prize corresponds in value and character to the medical one described above. In this case the examination

is conducted by the Surgeons, and comprises surgical subjects only.

Clarke's Prize.—The interest of £500, bequeathed by the late Henry Clarke, Esq., Consulting Surgeon to the Infirmary, will be given annually to the prizeman of his third year at the examination held at the Medical School, provided he has attended his hospital practice at the Bristol Royal Infirmary, and can produce certificates of good moral character.

Tibbitts Memorial Prize.—A prize of about £12 12s., founded by public subscription in memory of the late R. W. Tibbitts, Esq., Surgeon to the Infirmary, will be awarded annually after a competitive examination.

Pathological Prize.—The Pathological Clerk at the expiration of his term of office will receive a prize of the value of £3 3s. if his duties have been performed to the satisfaction of the Faculty.

FEES.

An entrance fee of £2 2s. to the Infirmary, and subscription of £1 1s. per annum to the Library. Medical or Surgical Practice, £7 7s. for six months, £12 12s. for one year, £21 perpetual; Medical and Surgical Practice together, in one payment, £21 for one year, £36 15s. perpetual. The above fees include Clinical Lectures. Clinical Clerkship, £5 5s. for six months, £8 8s. for one year; Dressership, £5 5s. for each six months; Obstetric Clerkship, £3 3s. for each three months.

Medical Superintendent's Resident Pupil, £315. This fee includes five years' residence in the Infirmary and all attendance on medical and surgical practice required by the examining bodies; it does not include a dressership or clinical clerkship. Students may also enter as resident pupils for a shorter period, at the rate of £52 10s. per annum to the Infirmary, with a fee of £52 10s. to the Medical Superintendent.

All fees are paid to the Secretary, at the Infirmary.

BRISTOL GENERAL HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Honorary and Consulting Physician—Dr. Henry E. Fripp.

Honorary and Consulting Surgeons—Mr. Robert W. Coe, Mr. W. Michell Clarke, Dr. Henry Marshall.

Honorary and Consulting Physician-Accoucheur—Dr. Joseph G. Swayne.

Physicians.

Dr. George F. Burder.
Dr. E. Markham Skerritt.
Dr. Joseph B. Siddall.

Surgeons.

Mr. F. Poole Lansdown.
Mr. George F. Atchley.
Mr. Nelson C. Dobson.
Mr. William P. Keall.

Physician-Accoucheur.

Dr. A. E. Aust-Lawrence.

Physician's Assistant.

Mr. Edward W. Hope.

House-Surgeon.

Mr. Charles F. Pickering.

Assistant House-Surgeon.

Mr. John R. Guy.

Dentist—Mr. Thomas C. Parson.

SCHOLARSHIPS AND PRIZES.

Martyn Memorial Entrance Scholarship.—This scholarship, of the value of £20, founded by public subscription, in memory of the late Dr. Samuel Martyn, Physician to the Hospital, is awarded annually at the commencement of the winter session, after a competitive examination in subjects of general education.

Clarke Scholarship.—A Surgical Scholarship of £15, founded by H. M. Clarke, Esq., of London, is awarded annually, at the end of the winter session, after an examination in Surgery.

Sanders Scholarship.—A scholarship, founded by the late John Nash Sanders, Esq., and consisting of the interest of £500, is awarded annually, at the end of the winter session, after examinations in Medicine, Surgery, and Diseases of Women.

Lady Haberfield Prize.—This prize, founded by the late Lady Haberfield, and consisting of the interest of £1000, is awarded annually, at the end of the winter session, after examinations in Medicine, Surgery, and Diseases of Women.

The Martyn Memorial Scholarship and the Lady Haberfield Prize, when not awarded as above, are available for the remuneration of a Museum Curator, to be appointed from amongst the students after a competitive examination in subjects bearing upon the duties of the office.

The rules relating to the several Scholarships may be had on application.

FEES.

Medical or Surgical Practice, £6 for six months; £10 for one year; £20 perpetual. Entrance fee for Clinical Clerk or Dresser, £5 5s. for six months. Entrance fee for Obstetric Clerk, £3 3s. for three months. Library fee, £1 1s. per annum. Resident pupils (including board, lodging, and washing), £100 for the first year, £60 for each subsequent year; or for five years, with apprenticeship to the Hospital, £260.

Further particulars respecting the Infirmary may be known on application to the House-Surgeon of the Infirmary; respecting the Hospital, on application to Dr. Siddall, or to the House-Surgeon, at the Hospital. Information regarding the Medical School will be afforded by the Honorary Secretary of the School, E. Markham Skerritt, M.D., Medical School, University College, Tyndall's Park, Bristol.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.

The winter session will be opened on Wednesday, October 1, at 2 p.m., in the Wood Memorial Hall, when the scholarships and prizes will be presented by Sir George Elliot, Bart., M.P., the annual report of the Council read by the Registrar, and the inaugural address delivered by David Drummond, M.D. The President, Dr. G. Y. Heath, will take the chair.

SCHOLARSHIPS, ETC.

A University of Durham Scholarship, of the value of £25 a year for four years annually, for proficiency in Arts, awarded to perpetual students in their first year only. The Dickinson Scholarship, value £15 annually, for Medicine, Surgery, Midwifery, and Pathology. The Tulloch Scholarship, value £20 annually, for Anatomy, Physiology, and Chemistry. The Charlton Scholarship, value £35 annually, for Medicine. The Gibb Scholarship, value 25 annually, for Pathology. At the end of each session a silver medal and certificate of honour are awarded in each of the regular classes. An Assistant Curator of the Museum is annually appointed from among the senior students, and receives £12 as an honorarium. Two Assistant Demonstrators of Anatomy, two Assistant Physiologists, and two Pathological Assistants are also elected. Four Resident Dressers are chosen every six months on payment of a fee of £10 10s. for board and residence.

The Infirmary contains 230 beds. There are special wards for the treatment of Children and for Ophthalmic and Syphilitic Diseases. Clinical lectures are delivered by the Physicians and Surgeons in rotation three times a week. Pathological demonstrations are given as opportunity offers by the Pathologist. Practical Midwifery can be studied at the Newcastle Lying-in Hospital, where there is an outdoor practice of about 400 cases annually. Lectures are given on Psychological Medicine at the Cox Lodge Lunatic Asylum, by R. H. B. Wickham, F.R.C.S.E., Medical Superintendent.

FEES FOR HOSPITAL PRACTICE AND LECTURES.

1. A perpetual ticket for Lectures at the College may be obtained (1) by the payment of £52 10s. on entrance; (2) by two payments of £28 7s. at the commencement of the first and second winter sessions; (3) by the payment of three annual instalments, each of £21, at the commencement of the sessional year. The classes of Chemistry and of Practical Physiology are excepted from the number of classes that may be attended in perpetuity by perpetual students.

2. Fees for attendance on Hospital Practice:—For three months' Medical and Surgical Practice, £4 4s.; six months' Medical and Surgical Practice, £5 5s.; one year's Medical and Surgical Practice, £7 7s.; Perpetual Medical and Surgical Practice, £17 17s.; or by instalments at the commencement of the sessional year, viz.:—First year, £7 7s.; second year, £6 6s.; third year, £5 5s.

3. Single course of lectures or tutorial classes (except the course on Chemistry), £4 4s.; Chemistry, £5 5s.

A fee of 10s. is required for the use of the College Library, from Students attending the College for one year only, and a fee of 15s. from those attending for a longer period; and £1 1s. caution-money, to be returned at the end of the session, is required for the use of apparatus in the Chemical Laboratories, and 5s. caution-money for the use of bones. Fees for Lectures, etc., at the College, must be paid to the Registrar; and fees for Hospital Practice or Clinical Lectures, to the Senior House-Surgeon at the time of entry.

Further particulars may be obtained from Dr. Luke Armstrong, Registrar, Clayton-street West; or Mr. Henry E. Armstrong, Secretary, 6, Wentworth-place, Newcastle-on-Tyne.

NEWCASTLE-UPON-TYNE INFIRMARY.

MEDICAL AND SURGICAL STAFF.

Physicians.
Dr. Philipson.
Dr. Gibson.
Dr. Drummond.
Dr. Oliver.

Surgeons.
Dr. Heath.
Dr. Arni-on.
Dr. Armstrong.
Dr. Hume.

Assistant-Surgeons—Dr. Page and Mr. T. A. Dodd.

Clinical Lectures.—Lectures in Clinical Medicine are delivered by the Physicians, in rotation, on Mondays and Fridays, at twelve o'clock. Lectures in Clinical Surgery are delivered by the Surgeons, in rotation, on Thursdays, at ten o'clock.

LIVERPOOL SCHOOL OF MEDICINE.

LECTURERS.

Anatomy—Mr. W. Mitchell Banks.	Materia Medica—Dr. W. Carter.
Botany—Dr. G. Shearer.	Medicine—Dr. A. T. H. Waters.
Chemistry—Dr. J. C. Brown.	Obstetric Medicine and Gynaecology—Dr. Wallace.
Comparative Anatomy—Dr. E. H. Dickinson.	Ophthalmic Medicine—Mr. T. Shadford Walker.
Dental Mechanics—Mr. R. E. Stewart.	Pathological Anatomy—Dr. A. Davidson.
Dental Surgery—Mr. J. Snape.	Physiology—Dr. Richard Caton.
Forensic Medicine—Dr. Ewing Whittle.	Surgery—Mr. Rushton Parker.
Diseases of Children—Dr. R. Gee.	

DEMONSTRATORS.

Histology and Practical Physiology—Mr. F. T. Paul.	Practical Anatomy—Dr. Briggs.
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ROYAL INFIRMARY.

Consulting Physician—Dr. Turnbull.
Consulting Surgeons—Mr. Long, Mr. Hakes.

Physicians.	Surgeons.
Dr. Waters.	Mr. Bickersteth.
Dr. Glynn.	Mr. Harrison.
Dr. Davidson.	Mr. Banks.

Resident Medical Officer—Mr. R. H. Jones.	Assistant-Surgeon—Mr. Parker.
Pathologist—Mr. Paul.	Dental Surgeon—Mr. Snape.
Surgeons to the Lock Hospital—Mr. McCheane, Mr. F. W. Lowndes.	

The Infirmary contains nearly 300 beds. There are special wards for the treatment of Uterine and other Diseases of Women.

The Lock Hospital, adjoining the Infirmary, contains sixty beds.

SCHOLARSHIPS AND PRIZES.

Roger Lyon Jones Scholarship.—By the will of the late R. L. Jones, Esq., of Liverpool, the sum of £2000 has been left to the School for the purpose of founding a scholarship, to be named after the donor. One-half (£21 for two years) is awarded each October to the applicant who has taken highest place at the matriculation examination of the London University on condition that he becomes a composition-ticket holder of the School. The other half (£21 for two years) is awarded to second-year students for proficiency in Anatomy, Physiology, Chemistry, Botany, Materia Medica, and Practical Chemistry.

Torr Medal.—A gold medal for Anatomy and Physiology, presented by Mr. John Torr, M.P., is awarded to the first student in the second year subjects.

Bligh Medal.—This gold medal, which is presented annually by Dr. John Bligh, Liverpool (also for the encouragement of the study of Anatomy and Physiology), is awarded to the first student in the first year subjects.

FEES.

Composition Fee.—A payment of £52 10s. on entrance or in two equal instalments (one-half on entrance, and the remainder within twelve months), entitles the student to attendance on all the lectures and demonstrations required for the Membership of the Royal College of Surgeons, the Licence of the College of Physicians and the Apothecaries' Society.

Library.—All medical students on registering are required to pay an annual fee of 10s. 6d. to the library and reading-room, or a perpetual fee of £1 1s.

The perpetual Hospital fee (£33 12s.) and the School composition fee for lectures required by the licensing bodies (£52 10s.) amount together to £86 2s. In addition to this must be reckoned Vaccination fee (£1 1s.), Dissecting-room expenses (roughly estimated at £3 3s.), and a summer course of Practical Anatomy, which, though not absolutely essential, is generally taken (£2 2s.), in all amounting to £6 6s. The total expenses of the education necessary to procure a medical and surgical qualification thus amount to somewhat over £90.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.

Physicians.	Surgeons.
Dr. Cameron.	Mr. Hamilton.
Dr. Carter.	Mr. Little.
Dr. Williams.	Mr. Ransford.

Senior House-Surgeon—Mr. Wearing.

Junior House-Surgeons.

Mr. Helme. | Mr. Davies.

Two hundred beds. Clinical Lectures given by the Physicians and Surgeons during the winter and summer sessions. Clinical Clerkships and Dresserships open to all students. A special

ward for Accidents and Diseases of Children. Rooms for a limited number of resident students

FEES FOR HOSPITAL PRACTICE AND CLINICAL LECTURES.

Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s.

The practice of the Hospital is recognised by all the examining bodies.

LIVERPOOL NORTHERN HOSPITAL.

The winter session will commence on Wednesday, October 1.

MEDICAL AND SURGICAL STAFF.

Physicians.

Dr. Dickinson. | Dr. Caton.

Surgeons.

Mr. Manifold. | Mr. Puzey.
Dr. Campbell.

The Hospital contains 144 beds.

FEES FOR HOSPITAL PRACTICE AND CLINICAL LECTURES.

Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s. Students can enter to the medical or surgical practice separately on payment of half the above fees. The Hospital receives one resident pupil, fee £63 per annum. Attendance on the practice of this Hospital qualifies for all the examining boards.

For further particulars apply to the House-Surgeon.

LEEDS SCHOOL OF MEDICINE.

CLASSES AND LECTURES.

Chemistry (at the Yorkshire College of Science)—Prof. T. E. Thorpe.	Medicine—Dr. T. Clifford Allbutt and Dr. John Edwin Eddison.
Clinical Medicine—Dr. J. D. Heaton, Dr. T. Clifford Allbutt, and Dr. John Edwin Eddison.	Mental Diseases—Dr. H. Major.
Clinical Surgery—Mr. C. G. Wheelhouse, Mr. T. P. Teale, Mr. T. R. Jessop, and Mr. Edward Atkinson.	Midwifery—Mr. W. N. Price, and Dr. James Braithwaite.
Demonstrators of Anatomy—Mr. A. F. McGill, and Mr. Robson.	Pathology—Mr. A. F. McGill.
Descriptive Anatomy—Mr. John A. Nunneley and Mr. Edmund Robinson.	Physiology—Mr. C. J. Wright and Mr. John Horsfall.
Forensic Medicine—Mr. Thomas Scattergood.	Practical Chemistry (at the Yorkshire College of Science)—Professor T. E. Thorpe.
Materia Medica—Dr. T. Churton.	Practical Physiology—Mr. James Walker.
	Surgery (including the Practical Course)—Mr. T. R. Jessop, and Mr. Edward Atkinson.

LEEDS GENERAL INFIRMARY.

MEDICAL AND SURGICAL STAFF.

Consulting Physician—Dr. Charles Chadwick.

Consulting Surgeon—Mr. Samuel Hey.

Physicians.

Dr. John Deakin Heaton.
Dr. T. Clifford Allbutt.
Dr. John Edwin Eddison.

Surgeons.

Mr. C. G. Wheelhouse.
Mr. T. Pridgin Teale.
Mr. T. R. Jessop.
Mr. Edward Atkinson.

Surgeons to the Eye and Ear Department.

Mr. John A. Nunneley, Dr. Robert T. Land, Mr. R. P. Oglesby.

SCHOLARSHIPS AND PRIZES.

The Hardwick Scholarship in Clinical Medicine.—Candidates for this prize must be in registered attendance upon the medical practice of the Hospital, and have served the office of Clinical Clerk, or be holding that office at the time of competition. The prize is given annually for the best set of reports of medical cases in the Hospital during the winter session, subject to such regulations as may be laid down at the commencement of the session. Its value is £10 in money. Should the funds admit, a second prize may be given.

The Surgeons' Clinical Prizes.—Three prizes of the value of £8, £5, and £3 in money will be given annually by the Surgeons of the Hospital, subject to conditions similar to those relating to the Hardwick Prize.

The Thorp Prize in Forensic Medicine.—This is a prize of £10 (founded by a former member of Council), awarded at the close of each summer session, in one or two sums, subject to such regulations as may be made from time to time, of which due notice will be given.

FEES.

The composition fee for attendance upon all the required courses of school lectures is £50 8s., to be paid on entrance; or £26 5s. on entrance, and £26 5s. in twelve months. The fees for the Comparative Anatomy course and for a second course of Practical Chemistry are not included in the composition fee. The entrance fee to the library and reading-room, £1 1s., is paid by all students on joining the School. Instruction in vaccination, as required by the College of Surgeons and by the Poor-law Board, is given by one of the Public Vaccinators—fee £1 1s.; students must attend during a period of six weeks. The fees for attending the medical practice or the

surgical practice alone are as follows:—One winter session, £7 7s.; one summer session, £6 6s.; twelve months, £12 12s.; eighteen months, £15 15s.; three years, £21.

The fee of £21 for surgical practice is payable at the commencement of the first winter session, and that for medical practice at the commencement of the second winter session.

All further information may be obtained from Mr. Charles J. Wright, Hon. Sec. and Registrar.

OWENS COLLEGE (MANCHESTER ROYAL) SCHOOL OF MEDICINE.

PROFESSORS AND LECTURERS.—WINTER SESSION.

Chemistry—Dr. Henry F. Roscoe.	Clinical Medicine—Dr. William Roberts.
Comparative Anatomy—Dr. Milnes Marshall.	Principles and Practice of Medicine—Dr. J. E. Morgan.
Descriptive and Practical Anatomy—Dr. Morrison Watson.	Organic Chemistry—Mr. C. Schorlemmer.
General Pathology and Morbid Anatomy—Dr. Henry Simpson, Dr. Julius Dreschfeld.	Physiology and Histology—Dr. Arthur Gamgee.
Hospital Instruction—The Physicians and Surgeons to the Royal Infirmary.	Surgery—Mr. Edward Lund.
	Practical Surgery—Mr. S. M. Bradley.

SUMMER SESSION.

Botany—Mr. W. C. Williamson.	Midwifery and Diseases of Women and Children—Dr. J. Thorburn.
Hygiene and Public Health—Dr. Arthur Ransome.	Practical Chemistry—Dr. Henry E. Roscoe.
Materia Medica and Therapeutics—Mr. Alexander Somers, Dr. Leech.	Practical Morbid Histology—Dr. J. Dreschfeld.
Medical Jurisprudence—Mr. C. J. Cullingworth.	Practical Physiology and Histology—Dr. Arthur Gamgee.
Ophthalmology—Dr. D. Little.	

Demonstrators in Anatomy—Mr. A. Fraser and Mr. H. S. Branfoot.

Registrar—Mr. J. Holme Nicholson.

Dean of the Medical School—Professor Gamgee, M.D., F.R.S.

EXHIBITIONS, PRIZES, ETC.

A *Turner Scholarship* of £25 for third year's students, a *Scholarship* of £15 for second year's students, and one of £10 for first year's students. For third year's students prizes will also be given in books or instruments varying from £3 3s. to £5 5s. in the classes of the third year's course. For second year's students prizes of books or instruments of the same value are offered on the results of the class examinations for the second year's course. For first year's students prizes of books or instruments of the same value are offered on the results of the class examinations for the first year's course.

Platt Physiological Scholarships.—Two Scholarships of £50 each, tenable for two years, one of which is offered annually, are open to the competition of all students of the College who shall have studied Physiology in the College laboratory during one entire session, and whose age on January 1 preceding the examination shall not be under eighteen nor over twenty-five years. The next examination will be held on the 13th and 14th of October, 1879. The Scholarship will be awarded for the best original investigation in Physiology prosecuted in the College laboratory, and on the results of a written examination in Physiology and such subjects connected therewith as shall be prescribed. The Scholarship will not be awarded on the ground of comparative merit only. The candidate elected to the Scholarship will be required to attend during one year of his tenure the practical class in the physiological laboratory of the College, and during the other year the same or some other physiological laboratory in England or on the Continent approved of by the Council and the Senate of the College. If no original investigation shall have been carried on worthy of the Scholarship, the Council may, if they think fit, award one or more exhibitions to the candidate or candidates who shall have been most distinguished in the examination.

Platt Exhibitions.—An announcement respecting these exhibitions will be made early in the session.

Dumville Surgical Prize, value £20.—The Prize will consist of books or surgical instruments at the option of the winner. Candidates must have studied in the Medical Department of the College and the Manchester Royal Infirmary during the winter session of 1878-9, the summer session of 1879, and the winter session of 1879-80, and have attended four courses of lectures, including one, at least, on Surgery. The examination will be conducted by means of written answers to questions on the Principles and Practice of Surgery, including Surgical Anatomy, and, at the option of the examiners, will also include the examination of patients and operations on the dead subject, together with reports of three surgical cases which have occurred in the wards

of the Manchester Royal Infirmary during the preceding six months—the reports to comprise the history, progress, treatment, and results (with observations thereon) of these cases. The examination will take place on the 29th and 30th of April, 1880. Notice of intention to compete must be sent to the Registrar in writing on or before March 31, 1880.

Dauntsey Medical Scholarship.—Candidates for this scholarship must not at the time of election be or have been students in the medical department of the Owens College or in any other medical school in the United Kingdom, but no candidate will be excluded by reason of his having been previously registered as a student in the medical department provided he shall not have attended the lectures on Human Anatomy or Physiology, or a purely medical or surgical course. Candidates must not be more than twenty-five years of age on October 1, 1879. The Scholarship is of the value of about £100, and is tenable for one year. During the year of tenure and the two succeeding years the scholar must devote himself to medical studies at the Owens College, and must immediately on election enter for the full course of medical studies in the Owens College.

Gilchrist Scholarships.—Three of £50 each, tenable for three years, one of which is annually awarded to the candidate who shall stand highest at the Matriculation Examination of the University in London in June, provided that he pass in the honours division, and, failing such, two of £25 each will be given to the two candidates who stand highest in the first division. Further particulars will be found in the "Calendar" and in the prospectus of scholarships, exhibitions, and prizes.

FEES.

A composition fee, of £63, payable in two sums of £31 10s. each at the commencement of the first and second years of studentship, admits to the four years' course of study. Students desirous of repeating attendances on any class after the expiration of the four years' course, will be allowed to do so on paying for each class attended one-third of the fee payable by students who do not compound. A student, however, who desires to continue his study of Practical Anatomy beyond two sessions, will be required to pay at the rate of £2 2s. for a three months' or £3 3s. for a six months' course.

Extra fees of £1 1s. will be charged for attendance on the Demonstrations in Botany and in Comparative Anatomy; and of £2 2s. for each of the courses of Morbid Histology, Operative Surgery, and the Medical Tutor's Class.

A charge of £1 1s. is also made for the chemicals used in the class of Practical Chemistry.

MANCHESTER ROYAL INFIRMARY.

MEDICAL AND SURGICAL STAFF.

Consulting Physicians—Dr. R. F. Ainsworth, Dr. Frank Renand, Dr. T. H. Watts, and Dr. Henry Browne.

Physicians.

Dr. William Roberts.
Dr. Henry Simpson.
Dr. John E. Morgan.
Dr. Daniel J. Leech.

Assistant-Physicians.

Dr. Julius Dreschfeld.
Dr. James Ross.

Obstetric Physician.

Dr. John Thorburn.

Surgeons.

Mr. F. A. Heath.
Mr. Edward Lund.
Mr. George Bowring.
Mr. S. M. Bradley.

Assistant-Surgeons.

Mr. W. Whitehead.
Mr. J. Hardie.

Ophthalmic Surgeon.

Dr. Little.

Dental Surgeon—Mr. G. W. Smith.

Resident Medical Officer—Dr. Graham Steele.

Resident Surgical Officer—Dr. F. A. Southam.

Medical Supt. of the Royal Lunatic Hospital at Cheadle—Mr. G. W. Mould.

Medical and Surgical Registrar—Dr. T. Jones.

Pathological Registrar—Dr. S. D. Bradshaw.

Secretary and Superintendent—Mr. W. L. Saunder.

CLINICAL PRIZES.

One Medical and one Surgical Clinical Prize is offered annually for the best reports and commentaries on six medical and on six surgical cases respectively. The cases must be selected from those treated in the Infirmary within the preceding twelve months.

The reports shall be signed with a motto, and transmitted (together with a sealed envelope containing the name and address of the student and the motto chosen by him) to the Chairman of the Medical Committee not later than September 1.

The two prizes shall be open respectively to the medical and surgical pupils for the current year; they shall be each of the

value of £6 6s., and shall consist of books or instruments, at the option of the successful candidates.

STUDENTS' FEES.

Medical Practice.—Three months, £6 6s.; six months, £9 9s.; twelve months, £12 12s.; full period required by the examining board, £18 18s.

Surgical Practice.—Three months, £9 9s.; six months, £12 12s.; twelve months, £18 18s.; full period required by the examining board, £31 10s.

Composition Fee.—The fees for the full period required by the examining boards of both medical and surgical practice may be paid by a composition fee of £42 on entrance, or by two instalments of £22 each at an interval of twelve months.

In addition to the practice of the Infirmary, the Monsall Fever Hospital and the Barnes Convalescent Home will also be open, under certain regulations, to students for the purposes of instruction.

SHEFFIELD SCHOOL OF MEDICINE.

LECTURES—WINTER SESSION.

Anatomy, Descriptive and Surgical—Mr. E. Skinner, Mr. Snell.	Dental Mechanics—Mr. G. Mosely.
Chemistry—Mr. Allen.	Demonstrations of Anatomy—Mr. R. J. Pye-Smith, Dr. Davison.
Clinical Surgery—The Surgeons of the Infirmary and Public Hospital and Dispensary.	Principles and Practice of Medicine—Dr. Bartolomé, Dr. Banham, Dr. W. R. Thomas.
Clinical Medicine—The Physicians of the Infirmary and Public Hospital and Dispensary.	Principles and Practice of Surgery—Mr. W. F. Favell, Mr. A. Jackson.
Physiology—Dr. Dyson and Mr. W. D. James.	Lecturer on Diseases of the Eye—Mr. Snell.

SUMMER SESSION.

Botany—Mr. Birks.	Materia Medica and Therapeutics—Dr. Young.
Demonstrations of Pathology and Microscopy—The House-Surgeon (at the Infirmary).	Medical Jurisprudence and Toxicology—Mr. Harrison, Mr. Bell.
Demonstrations of Operative Surgery—Mr. Favell.	Midwifery and Diseases of Women—Dr. Hime.
Demonstrations of Practical Histology and Physiology—Dr. Gwynne.	Practical Chemistry—Mr. Allen.
Dental Surgery—Dr. Merryweather.	Practical Surgery—The House-Surgeon (at the Infirmary).
	Public Medicine—Dr. Drew.

SHEFFIELD GENERAL INFIRMARY.

MEDICAL AND SURGICAL STAFF.

<i>Physicians.</i>	<i>Surgeons.</i>
Dr. Bartolomé.	Mr. Barber.
Dr. Law.	Mr. Favell.
Dr. Banham.	Mr. Jackson.
Ophthalmic Surgeon—Mr. Snell.	
House-Surgeon—	

The Infirmary contains 180 beds for in-patients.

FEES.

The fees for perpetual attendance at the Infirmary are £15 15s. for medical, £21 for surgical practice. For twelve months' practice: Medical, £10 10s.; surgical, £6 6s. Six months': Medical, £6 6s.; surgical, £4 4s.

PUBLIC HOSPITAL and DISPENSARY.

<i>Physicians.</i>	<i>Surgeons.</i>
Dr. H. J. Branson.	Dr. Keeling.
Dr. Dyson.	Mr. Thorpe.
Dr. W. R. Thomas.	Mr. Pye-Smith.
House-Surgeon—	

This Hospital contains 112 beds. The fees are the same as those of the Infirmary. Recognised by the Royal College of Surgeons.

SHEFFIELD HOSPITAL FOR DISEASES OF WOMEN.

MEDICAL OFFICERS.

Dr. Jackson, Dr. Keeling, Dr. Hime, Mr. Woolhouse.

FEES.

Anatomy and Physiology, first course, £6 6s.; second course, £4 4s. Practice of Medicine, first course, £4 4s.; second course, £2 2s. Practice of Surgery, first course, £4 4s. Chemistry, first course, £4 4s. Midwifery and Diseases of Women, first course, £3 3s. Materia Medica, first course, £3 3s. Medical Jurisprudence, first course, £3 3s. Botany, first course, £3 3s. Practical Chemistry, first course, £3 3s. Practical Physiology, £3 3s. Practical Surgery, £3 3s. These fees include demonstrations, but not Tutor's fee, which is £2 2s.

Perpetual fee for attendance on all the lectures required by the Royal College of Surgeons and the Apothecaries' Hall, £45.

All further information may be obtained on application to the Hon. Secretary, Arthur Jackson, Wilkinson-street, Sheffield.

SCHOOLS AND HOSPITALS IN SCOTLAND.

UNIVERSITY OF EDINBURGH.—FACULTY OF MEDICINE.

SESSION 1879-80.

Principal—Sir Alexander Grant, Bart., LL.D.

WINTER SESSION.

The session will be opened on Tuesday, October 28, 1879.

Anatomy—Prof. Turner.	General Pathology—Prof. Sanders.
Anatomical Demonstrations—Prof. Turner.	Institutes of Medicine or Physiology—Prof. Rutherford.
Botany—Prof. Dickson.	Materia Medica—Prof. T. R. Fraser.
Chemistry—Prof. Crum Brown.	Midwifery and Diseases of Women and Children—Prof. Simpson.
Clinical Medicine—Profs. MacLagan, Sanders, Grainger Stewart, and T. R. Fraser. (Prof. Simpson on Diseases of Women.)	Natural History—Prof. Sir C. Wyville Thomson.
Clinical Surgery—Prof. Annandale.	Practice of Physic—Prof. Grainger Stewart.
	Surgery—Prof. Spence.

WINTER AND SUMMER SESSION.

Anatomical Demonstrations—Prof. Turner.	Practical Physiology, including Histology, Chemical Physiology, and Experimental Physiology—Prof. Rutherford.
Bandaging and Surgical Appliances—Prof. Spence.	Practical Anatomy—Prof. Turner.
Operative Surgery—Prof. Spence.	Practical Chemistry—Prof. Crum Brown.
Obstetrical and Gynaecological Operations—Prof. Simpson.	

SUMMER SESSION.

Practical Instruction in Mental Diseases at an Asylum—Prof. Grainger Stewart.	Practical Botany—Prof. Dickson.
Practical Natural History—Prof. Sir C. Wyville Thomson.	Vegetable Histology—Prof. Dickson.
Practical Morbid Anatomy and Pathology—Prof. Sanders.	Tutorial Class of Clinical Medicine in the Wards of the Royal Infirmary by the Clinical Tutor, Dr. Jas. Murdoch Brown.

During the summer session lectures will be given on the following subjects:—

Anatomical Demonstrations—Prof. Turner.	Medical Psychology and Mental Diseases—Prof. Grainger Stewart.
Botany—Prof. Dickson.	Medical Jurisprudence—Prof. MacLagan.
Chemistry—Prof. Crum Brown.	Natural History—Prof. Sir C. Wyville Thomson.
Clinical Medicine—Profs. MacLagan, Sanders, Grainger Stewart, T. R. Fraser, and Simpson (Diseases of Women).	Obstetrical and Gynaecological Operations—Prof. Simpson.
	Clinical Surgery—Prof. Annandale.

Information relative to matriculation and the curricula of study for degrees, examinations, etc., will be found in the University Calendar, and may be obtained on application to the Secretary at the College.

A list of fees is given in the next column.

During the summer session the following means are afforded for practical instruction:—

The *Dissecting Rooms* are open daily, under the Superintendence of the Professor, assisted by D. J. Cunningham, M.D., and F. D. Fraser, M.B.

The *Royal Edinburgh Asylum* is open to members of the class of Medical Psychology exclusively for practical instruction in Mental Diseases by the Physician-Superintendent, Dr. Clouston.

Chemical Laboratories.—The laboratory for instruction in Analytical Chemistry and for chemical investigation, under the superintendence of the Professor, assisted by R. M. Morrison, D.Sc., and G. C. Robinson, is open from ten to four. The Laboratory for Instruction in Practical Chemistry, under the superintendence of the Professor, assisted by A. P. Aitken, M.A., D.Sc.

The *Physiological Laboratory* is open daily for physiological investigation, under the superintendence of the Professor, assisted by De Burgh Birch, M.B.

The *Physical Laboratory* is open daily from ten to three, under the superintendence of Professor Tait.

The *Medical Jurisprudence Laboratory* is also open daily from ten to three, under the superintendence of the Professor, assisted by J. O. Affleck, M.D.

The practice of Obstetrical and Gynaecological Operations is carried out in the Obstetrical Museum, under the superintendence of the Professor, assisted by David B. Hart, M.B.

The *Natural History Laboratory* is open daily, under the superintendence of the Professor, Sir C. Wyville Thomson, assisted by George Leslie.

The *Natural History Museum* in the Museum of Science and Art, Chambers-street, is accessible to the students attending the Natural History Class.

The *Royal Botanic Garden, Herbarium, and Museum* are open daily.

MEDICAL FELLOWSHIPS, SCHOLARSHIPS, BURSARIES,
AND PRIZES.

Fellowships.—The Falconer Memorial Fellowship, value £100, tenable for two years. It is for the encouragement of the study of Palæontology and Geology, and is open to graduates in Science or Medicine of the University of not more than three years' standing. The Syme Surgical Fellowship, value about £100, tenable for two years, open to competition among Bachelors of Medicine of not more than three years' standing, who shall present the best thesis on a surgical subject, giving evidence of original research.

Scholarships.—The Sibbald Scholarship, value about £40, tenable for four years. The Thomson Scholarship, of the value of £40 yearly, tenable for four years, will be awarded in October, 1882; the subjects of examination, Botany, Zoology, and Elementary Mechanics. Candidates to be matriculated students about to commence their first winter session in the Medical Faculty; a preference to be given to candidates of the names of Thomson or Traquair, or to natives of the town or county of Dumfries, or of the city of Edinburgh.

Bursaries.—The Abercromby Bursary of £20, tenable for four years, is open to students who have been brought up in Heriot's Hospital during their medical curriculum. The Sibbald Bursaries are open to the sons of duly registered medical men practising, or who may have practised in Scotland, and to the sons of parents who are, or who may have been, householders in Edinburgh. They are of the value of £30 each, tenable for four years, and available for the Faculty either of Arts, Law, Medicine, or Divinity. Eight Thomson Bursaries, value £25 each, tenable for four years; one to be competed for each March and October, at the preliminary examinations required from candidates for graduation in Medicine; candidates shall be those about to commence their medical curriculum, who shall attend the said preliminary examination and who shall pass in a sufficient number of subjects to enable them to appear for a professional examination; a preference to be given to candidates of the names of Thomson or Traquair, or to natives of the town or county of Dumfries, or of the city of Edinburgh. Information as to the Thomson Bursaries and Scholarship may be got from Messrs. Traquair, Dickson, and Maclaren, W.S., 11, Hill-street, Edinburgh. Four Grierson Bursaries of £20 a year. One Tyndall-Bruce Bursary of £25, tenable for one year, to be competed for by students who have reached the end of their third winter session—subjects of examination to be *Materia Medica* and Pathology. Competitors for the above bursaries must have studied the subjects of examination at the University of Edinburgh; and these are not to be held along with any other bursary or fellowship. Two Dr. John Aitken Carlyle's Medical Bursaries, of the value of £25 each, tenable for one year, to be awarded at the end of each winter session; one to a first year's student for proficiency shown in the ordinary class examinations in Anatomy and Chemistry; one to a second year's student for proficiency shown in the ordinary class examinations in Anatomy and Physiology. Two Mackenzie Bursaries, consisting of the proceeds of £1000, to be awarded annually, one to the student in the junior class of Practical Anatomy, and one to the student in the senior class of Practical Anatomy, who shall respectively display the greatest industry and skill in their Practical Anatomy work during the winter session.

Prizes.—The Ettles Medical Prize is awarded annually to the graduate in Medicine whom the Medical Faculty may consider the most distinguished of the year. Value about £40. The Beaney Prize will be awarded annually to the candidate for the degrees of M.B. and C.M. who, after having attended, within the University, courses of Anatomy, Surgery, and Clinical Surgery, qualifying for graduation, shall obtain the highest number of marks in those subjects during his examination for these degrees. Value about £40. The Hope Chemistry Prize, open to all students of the University of not more than twenty-five years of age, who have worked for eight months, or for two summer sessions, in the Chemical Laboratory of the University. Value £100. A Hope Scholarship, value £30; particulars as to which may be obtained on application to the Professor of Chemistry. The Neil Arnott Prize, of about £40, is awarded to the candidate who shall pass with the greatest distinction the ordinary examination in Natural Philosophy for the degree of M.A. Candidates must have been medical students of this University during either a summer or a winter session, and the successful candidate must continue a medical student of

this University during the winter session. No student can appear for examination after the completion of his third *annus medicus*; no candidate shall be allowed to offer himself more than once. The Ellis Prize for the best essay "On the Respiration of Plants as distinguished from their Nutrition," is open to students or graduates of five years' standing. Value, proceeds of the sum of £500 accumulated for three years. The Goodsir Memorial Prize of £60 is awarded triennially for the best essay containing results of original investigations in Anatomy or in Experimental Physiology. The Wightman Prize is awarded to the student of the class of Clinical Medicine who shall write the best report and commentary on cases treated in the University clinical wards during the academic year. The Cameron Prize, consisting of the free income of £2000, to be given yearly to the member of the medical profession who shall be adjudged to have made the most valuable addition to Practical Therapeutics during the year preceding the award. The Medical Faculty Prizes.—Gold medals are given on the day of graduation to Doctors of Medicine whose theses are deemed worthy of that honour.

LECTURESHIP.

The Swiney Lectureship on Geology, value £144, tenable for five years, is open to Doctors of Medicine of the University of Edinburgh. It is in the patronage of the trustees of the British Museum.

MINIMUM COST OF ATTENDING THE MEDICAL CLASSES, WITH THE ORDER OF STUDY.

Whilst there is no authorised order of study, the usual course is given below—Preliminary Examination in Arts to be taken in the month of March or October, before entering medical classes. By order of the General Medical Council, all medical students require to be registered as such within fifteen days after the commencement of the session. Students are recommended to commence their medical studies by attending the summer session.

First Summer Session.—Preliminary examination fee, 10s.; matriculation fee, 10s.; Botany (garden fee, 5s.), £4 4s.; Natural History, £4 4s.; total, £9 8s.

First Winter Session.—Matriculation (for whole year), £1; Anatomy, £4 4s.; Practical Anatomy, £3 3s.; Chemistry, £4 4s.; hospital, £5 5s. (perpetual ticket, £10); total, £17 16s.

Second Summer Session.—Botany or Natural History, if not attended previously; Practical Chemistry, £3 3s.; examination in Botany, Natural History, and Chemistry, in October following, (a) £5 5s.; total, £8 8s.

Second Winter Session.—Matriculation, £1; Institutes of Medicine, £4 4s.; Surgery, £4 4s.; hospital, £5 5s.; examination in Botany, Natural History, and Chemistry, in April, if not previously passed; total, £14 13s.

Third Summer Session.—Practical Pharmacy, £3 3s.; hospital; total, £3 3s.

Third Winter Session.—Matriculation, £1; *Materia Medica*, £4 4s.; Pathology, £4 4s.; Clinical Surgery, £4 4s.; hospital; examination in Anatomy, Physiology, *Materia Medica*, Pathology, in April or July, £5 5s.; total, £18 17s.

Fourth Summer Session.—Medical Jurisprudence, £4 4s.; outdoor dispensary, £2 2s.; hospital and clinical lectures; total, £6 6s.

Fourth Winter Session.—Matriculation, £1; Practice of Medicine, £4 4s.; Midwifery, £4 4s.; Practical Midwifery, £1 1s.; Clinical Medicine, £4 4s.; Vaccination, £1 1s.; outdoor dispensary, £1 1s.; hospital; total, £16 15s.

Fifth Summer Session.—Hospital; final examination for M.B. and C.M., £10 10s.; total minimum expenses for M.B. and C.M., £105 16s.

Only one course of instruction on each subject is here stated, that being the minimum.

Fees for Degrees.—Examination in Botany, Chemistry, chemical testing, and Natural History, £5 5s.; examination in Anatomy, Institutes of Medicine, *Materia Medica*, Pathology, £5 5s.; final examination in Surgery, Midwifery, Practice of Physic, Clinical Medicine, Clinical Surgery, Medical Jurisprudence, and prescriptions, during last summer session, £5 5s.; total fees for M.B. diploma, £15 15s. Additional fee for C.M. diploma, £5 5s.; additional fee for M.D. diploma, £5 5s.; Government stamp-duty (for M.D. only), £10.

Note.—Total fees and stamp for graduating as M.D. only, by regulations for students commencing before February, 1861, £25.

N.B.—The above fees include all charges for the diplomas.

Further information as to the classes, courses of lectures etc., may be obtained on application to W. Turner, M.B., Dean of the Faculty of Medicine; or from the University Calendar, published by James Thin, Edinburgh.

ROYAL INFIRMARY, EDINBURGH.

In this Hospital a portion of the beds is set apart for clinical instruction by the Professors of the University of Edinburgh. Courses of Clinical Medicine and Surgery are also given by the ordinary Physicians and Surgeons. Special instruction is given in the Medical Department on Diseases of Women, Physical Diagnosis, etc., and in the Surgical Department on Diseases of the Eye. Separate wards are devoted to fever, venereal diseases, diseases of women, diseases of the eye; also to cases of incidental delirium or insanity. Post-mortem examinations are conducted in the Anatomical Theatre by the Pathologist, who also gives practical instruction in Pathological Anatomy and Histology.

(a) For those who have certificates for two summer sessions and one winter session, and who have attended two courses during each of these three sessions.

MEDICAL DEPARTMENT.

Professors of Clinical Medicine—Dr. MacLagan, Dr. Sanders, Dr. Grainger Stewart, Dr. Thos. R. Fraser.

Extra Physician and Lecturer on the Diseases peculiar to Women—Dr. Alex. R. Simpson.

Ordinary Physicians and Lecturers on Clinical Medicine—Dr. Rutherford Haldane, Dr. George W. Balfour, Dr. T. Grainger Stewart, Dr. Claud Muirhead.

Assistant-Physicians—Dr. John Wyllie, Dr. David J. Brakenridge.

SURGICAL DEPARTMENT.

Consulting Surgeons—Dr. Dunsmure, Dr. J. D. Gillespie.

Professor of Surgery—Mr. Spence.

Ordinary Acting Surgeons—Dr. P. H. Watson, Mr. Thos. Annandale (Lecturers on Clinical Surgery); Dr. Joseph Bell.

Professor of Clinical Surgery—Mr. Annandale.

Ophthalmic Surgeons—Mr. Walker, Dr. D. A. Robertson.

Extra Surgeon for Treatment of Ovarian Diseases—Dr. Thomas Keith.

Assistant-Surgeons—Dr. John Duncan, Dr. John Chiene.

Dental Surgeon—Dr. John Smith.

Pathologist—Dr. John Wyllie.

HOSPITAL TICKETS.

Perpetual, in one payment, £10; annual, £5 5s.; half-yearly, £3 3s.; quarterly, £1 11s. 6d. Separate payments for two years entitle the student to a perpetual ticket.

THE SCHOOL OF MEDICINE, EDINBURGH.

On October 1 the Practical Anatomy Rooms and Chemical Laboratories will be opened. On October 28 the inaugural address will be delivered by Dr. J. Batty Tuke, at 11 a.m. The courses of lectures will be commenced—winter session, October 29; summer session, May 3.

WINTER SESSION.

Anatomy: Practical Anatomy, Course of Lectures, Course of Demonstrations—Dr. P. D. Handyside and Mr. J. Symington.

Chemistry: Lectures, Practical Chemistry, Analytical Chemistry—Dr. Stevenson Macadam, Mr. J. Falconer King, Mr. Ivison Macadam, Dr. Drinkwater, and Mr. Buchanan.

Materia Medica and Therapeutics—Dr. Francis W. Moinet and Dr. William Craig.

Practical Materia Medica, including Practical Pharmacy—Dr. Wm. Craig.

Surgery—Dr. P. Heron Watson, Mr. Chiene, Dr. John Duncan, and Dr. A. G. Miller.

Midwifery and Diseases of Women and Children—Dr. Keiller and Dr. Angus Macdonald.

Clinical Medicine (Royal Infirmary)—Drs. G. W. Balfour, Claud Muirhead, and Brakenridge. Dr. Angus Macdonald (Diseases of Women).

Institutes of Medicine or Physiology—Dr. James.

Clinical Surgery (Royal Infirmary)—Mr. Joseph Bell.

Medical Jurisprudence and Public Health—Dr. Littlejohn and Mr. H. A. Husband.

Practice of Physic—Dr. Claud Muirhead and Dr. John Wyllie.

Natural History, Zoology, and Comparative Anatomy—Dr. Andrew Wilson.

General Pathology and Pathological Anatomy—Dr. Bryan Waller.

Diseases of the Ear—Dr. Kirk Duncanson.

Vaccination (Royal Dispensary)—Dr. Husband.

Diseases of Children—Dr. James Andrew, Dr. James Dunsmure, and Dr. Carmichael.

Diseases of the Skin—Dr. Allan Jamieson.

Practical Gynecology—Dr. Halliday Croom.

Practical Midwifery—Dr. Charles Bell.

SUMMER SESSION.

Anatomy: Practical Anatomy, Course of Demonstrations—Dr. P. D. Handyside and Mr. Symington.

Chemistry: Practical Chemistry, Analytical Chemistry—Dr. Stevenson Macadam, Mr. J. Falconer King, Mr. Ivison Macadam, Dr. Drinkwater, and Mr. Buchanan.

Materia Medica and Therapeutics—Dr. Francis W. Moinet and Dr. William Craig.

Practical Materia Medica, including Practical Pharmacy—Dr. Wm. Craig.

Midwifery and Diseases of Women and Children—Dr. Keiller, Dr. Underhill, Dr. Halliday Croom, and Dr. Charles Bell.

Medical Jurisprudence and Public Health—Dr. Littlejohn and Mr. H. A. Husband.

Clinical Medicine (Royal Infirmary)—Drs. Geo. W. Balfour, Claud Muirhead, and Brakenridge. Dr. Angus Macdonald (for Diseases of Women).

Clinical Surgery (Royal Infirmary)—Mr. Joseph Bell.

Practical Physiology—Dr. James.

Natural History, Zoology, and Comparative Anatomy—Dr. Andrew Wilson.

Diseases of the Eye—Dr. Argyll Robertson.

Diseases of the Ear—Dr. Kirk Duncanson.

Vaccination—Dr. Husband.

Pathological Histology—

Insanity—Dr. J. Batty Tuke.

Diseases of Children—Dr. James Andrew, Dr. James Dunsmure, and Dr. Carmichael.

Operative and Practical Surgery—Dr. P. Heron Watson.

Surgical Anatomy and Operative Surgery—Mr. Chiene.

Practical Surgery—Dr. John Duncan.

Operative Surgery—Dr. G. A. Miller.

Practical Midwifery—Dr. Charles Bell.

course in Edinburgh the perpetual fee is £2 4s. Practical Anatomy (six months' course), £3 3s. Course of Demonstrations, £2 2s.; perpetual, £4 4s.; Practical Anatomy, with course of Demonstrations, £4 4s. Practical Chemistry, £3 3s.; Analytical Chemistry, £2 a month, £5 for three months, or £10 for six months. Practical Materia Medica (including Practical Pharmacy), Diseases of the Ear, and Diseases of Children, each £2 2s. Vaccination and Diseases of the Skin, each £1 1s. For summer courses of Clinical Surgery and Clinical Medicine, each £2 4s.; Practical Anatomy (including Anatomical Demonstrations), Operative Surgery, and Insanity, each £2 2s.

The minimum cost of the education in this School of Medicine for the double qualification of Physician and Surgeon from the Royal College of Physicians and Surgeons, including the fees for the joint examination, is £95, which is payable by yearly instalments during the period of study; whilst the minimum cost for the single qualification of either Physician or Surgeon, including the fee for examination, is £85.

UNIVERSITY OF GLASGOW.—FACULTY OF MEDICINE.

LECTURES AND CLASSES.—WINTER SESSION.

Anatomy, Junior; Anatomy, Senior; Practical Anatomy—Prof. Cleland and Demonstrators.
Chemistry, Chemical Laboratory—Prof. Ferguson.
Clinical Medicine—Prof. McCall Anderson.
Clinical Surgery—Prof. George Buchanan.

Materia Medica—Prof. Cowan.
Midwifery—Prof. Leishman.
Pathology—The Pathologists of the Infirmary.
Physiology—Physiological Laboratory—Prof. McKendrick.
Practice of Physic—Prof. Gairdner.
Surgery—Prof. Macleod.
Zoology—Professor Young.

SUMMER SESSION.

Botany, Botanical Demonstrations—Prof. I. Bayley Balfour.
Clinical Medicine—Prof. McCall Anderson.
Clinical Surgery—Prof. Buchanan.
Embryology, and Demonstrations on Anatomy, Elementary Anatomy, Practical Anatomy—Prof. Cleland and Demonstrator.
Forensic Medicine—Professor Simpson.
Lectures on the Eye—Dr. T. Reid.

Operative Surgery—Prof. Macleod.
Practice of Medicine—Prof. Gairdner.
Practical Chemistry, Organic Chemistry, Chemical Laboratory—Prof. Ferguson.
Practical Materia Medica—Prof. Cowan.
Practical Physiology—Prof. McKendrick.
Zoological Laboratory—Professor Young.

CLASS FEES.

Fee for each course, £3 3s., except lectures on the Eye, for which the fee is £1 1s.

In addition to the University courses, the following Hospitals and Dispensaries afford ample means for practical instruction in the various departments of Medicine and Surgery:—

WESTERN INFIRMARY.

This Hospital contains beds for medical and surgical patients, with wards for skin diseases and for diseases of women.

MEDICAL AND SURGICAL STAFF.

Physicians.
Prof. W. T. Gairdner.
Prof. T. McCall Anderson.
Dr. James Finlayson.

Surgeons.
Prof. George H. B. Macleod.
Prof. George Buchanan.
Dr. Alexander Patterson.

Diseases of Women—Prof. W. Leishman.
Dispensary Physicians—Dr. Gavin P. Tennent, Dr. Joseph Coats, and Dr. D. C. McVail.

Extra Dispensary Physician—Dr. S. Gemmell.
Dispensary Surgeons—Dr. J. G. Lyon, Dr. D. N. Knox, and Dr. J. Christie.
Extra Dispensary Surgeon—Dr. J. G. Renton.
Pathologist—Dr. Joseph Coats.

Consulting Physician-Accoucheur—Professor Leishman, M.D.

Physicians-Accoucheurs—Dr. W. L. Reid and Dr. R. Kirk.

Medical Superintendent—Dr. Alexander.

Lady Superintendent—Miss E. Clyde.

The hour of visit is 9 a.m.

FEES.

The fees for admission to the practice of this Infirmary are—First year, £10 10s.; second year, £10 10s.; afterwards free. The fees for clinical lectures are included in the foregoing.

GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.

The winter session commences on October 29, and the summer session on May 1. Lectures are delivered on the subjects necessary for qualifying, and extra courses are given on practical subjects now required by examining boards. During summer, lectures on Insanity will be given by Dr. A. Robertson, and the City Parochial Asylum under his charge is free to students of this School.

FEES.

For a first course of lectures, £3 5s.; for a second, £2 4s.; perpetual, £5 5s. To those who have already attended a first

The lectures qualify for the University of Edinburgh and the other Universities; the Royal Colleges of Physicians and Surgeons of Edinburgh, London, and Dublin, and the other medical and public Boards.

Anatomy—Mr. H. E. Clark.
Chemistry—Dr. John Clark.
Clinical Medicine and Clinical Surgery—The Physicians of Hospital.
Dental Surgery—Dr. J. C. Woodburn.
Diseases of the Ear—Dr. Cassells.
Diseases of the Eye—Mr. H. E. Clark.
Forensic Medicine—Dr. Macewen.
Materia Medica—Dr. John Dougall.

Medicine—Dr. A. Wood Smith.
Mental Diseases—Dr. A. Robertson.
Midwifery—Dr. J. Stirton.
Pathology—Dr. D. Foulis.
Physiology—Mr. W. J. Fleming.
Practical Physiology and Operative Surgery—Mr. Fleming and Dr. Cameron.
Surgery—Dr. H. C. Cameron.

The Royal Infirmary contains 570 beds. Of these 240 are for medical and 320 for surgical cases, with special wards for the treatment of venereal disease in males and diseases of women. Diseases of the ear and throat and eye are specially treated at the outdoor department.

MEDICAL AND SURGICAL STAFF.

Physicians.

Dr. Perry.
Dr. MacLaren.
Dr. Wood Smith.
Dr. Charteris.

Physician for Diseases of Women.
Dr. Stirton.

Surgeons.

Dr. Cameron.
Dr. Morton.
Dr. Macewen.
Dr. E. Watson.
Dr. Dunlop.

Dispensary Physicians.

Dr. Mather.
Dr. Lawrie.

Extra Dispensary Physicians.

Dr. J. W. Anderson.
Dr. Weir.
Dr. Dougall.

Dispensary Surgeons.

Mr. Clark.
Dr. Lothian.

Extra Dispensary Surgeons.

Dr. Whitson.
Mr. Fleming.
Dr. Foulis.

Vaccinator.

Dr. Tannahill.

Pathologist.

Dr. Foulis.

Diseases of the Throat.

Dr. Eben Watson.

Aural Surgeon—Dr. J. P. Cassells. | Dental Surgeon—Dr. J. C. Woodburn.

APPOINTMENTS.

There are five Physicians' and five Surgeons' Assistants, who are boarded and lodged in the Hospital at the rate of £25 per annum, and who perform all the duties of House-Physicians and House-Surgeons. These appointments are held for twelve months—six in the medical, and six in the surgical wards—and are open to those students of the Infirmary who have passed all their examinations except the last, or who have a qualification in Medicine or Surgery.

Clinical Assistants, Dressers, and Dispensary Clerks are selected from the students without any additional fee; and from the large number of accident cases and cases of acute disease received into the wards, these appointments are numerous, and invaluable to the student. The number of capital operations last year was ninety. The total number of operations was 605. Attendance at the Dispensary for the treatment of out-patients, and admission to the Pathological Museum, are also free.

FEES.

For each course of lectures, first session, £2 2s.; second ditto, and perpetual, £1 1s.

The Anatomy Class fees are—first session, £4 4s.; second ditto, £4 4s.; afterwards, £1 1s. per annum for Practical Anatomy.

HOSPITAL FEE.

The fee for perpetual attendance on the practice of the Infirmary and on the courses of clinical instruction and lectures is £21.

Prospectuses can be obtained from Dr. Thomas, the Superintendent of the Hospital.

ANDERSON'S COLLEGE, GLASGOW.

LECTURES AND CLASSES.

Anatomy—Dr. Buchanan.
Chemistry—Mr. Dittmar.
Institutes of Medicine or Physiology—Dr. McVail.
Medical Jurisprudence (in Summer)—Dr. Alex. Lindsay.
Midwifery (in Summer)—Dr. J. G. Wilson.
Materia Medica—Dr. Morton.
Ophthalmic Medicine and Surgery—Dr. Wolfe.

Practice of Medicine—Dr. Charteris.
Surgery—Dr. Dunlop.
Hygiene and Public Health (in summer)—Dr. Christie.
Dental Anatomy (in Summer)—Mr. Morrison.
Dental Surgery (in Summer)—Mr. Brownlie.
Mechanical Dentistry (in Winter)—Mr. Woodburn.

Dental practice in the Dental Hospital, which is situated in the College buildings.

FEES.

Fee for each class, £2 2s.; second session, £1 1s. The fees for all lectures and hospital practice required for a diploma do not exceed £48.

Hospital practice and clinical lectures in the Royal Infirmary, containing 570 beds.

Dispensary practice in Anderson's College Dispensary.

The lectures at Anderson's College qualify for the various licensing boards in the kingdom.

Students may also attend the Maternity Hospital (Physicians—Accoucheur—Drs. J. G. Wilson and Tannahill), Eye Infirmary, Ophthalmic Institution, Dispensary for Skin Diseases, etc.

A syllabus, with full information, may be obtained by applying to Dr. A. M. Buchanan, 201, St. George's-road, Glasgow, Dean of the Medical Faculty.

UNIVERSITY OF ABERDEEN.—FACULTY OF MEDICINE.

LECTURES.—WINTER SESSION.

Anatomy—Professor Struthers.
Chemistry—Professor Brazier.
Institutes of Medicine—Professor W. Stirling.
Materia Medica—Prof. Davidson.
Medical Logic and Medical Jurisprudence—Professor Ogston.
Midwifery and Diseases of Women and Children—Prof. Stephenson.

Practical Anatomy and Demonstrations—Professor Struthers and Assistants.
Practice of Medicine—Professor Smith-Shand.
Surgery—Professor Pirrie.
Zoology with Comparative Anatomy—Professor Cossar-Ewart.

SUMMER SESSION.

Botany—Professor Trail.
Practical Pharmacy—Prof. Davidson and Assistant.
Practical Midwifery and Gynaecology, and Clinical Diseases of Children—Professor Stephenson.
Practical Chemistry—Professor Brazier.

Practical Anatomy and Demonstrations—Professor Struthers and Assistants.
Practical Physiology—Professor Stirling.
Zoology with Comparative Anatomy—Professor Cossar-Ewart.

The Anatomical Course in summer includes instruction in Histology and in the use of the microscope; and instruction in Osteology for beginners.

FEES.

Matriculation fee (including all dues) for the winter and summer session, £1; for the summer session alone, 10s.

Pathological Anatomy, Dr. Rodger, £2 2s. Practical Ophthalmology, Dr. A. D. Davidson. Practical Toxicology, Dr. F. Ogston, jun. Dental Surgery (in summer), Mr. Williamson.

The regulations relative to the registration of students of Medicine, and the granting of degrees in Medicine and Surgery, may be had of Professor Brazier, Secretary of the Faculty of Medicine.

Full information regarding the classes and degrees in the Faculties of Arts, Law, and Divinity, and in regard to Bursaries and Scholarships, will be found in the University Calendar, published by Messrs. Wyllie and Son, Union-street, Aberdeen, by post 2s. 2d.

ABERDEEN ROYAL INFIRMARY.

The Aberdeen Royal Infirmary contains about 300 beds.

MEDICAL AND SURGICAL STAFF.

Consulting Physician—Dr. A. Harvey.
Consulting Surgeon—Mr. David Fiddes.

Physicians.

Dr. J. W. F. Smith-Shand.
Dr. R. Beveridge.
Dr. Angus Fraser.

Surgeons.

Mr. W. Pirrie.
Mr. A. Ogston.
Mr. J. O. Will.
Mr. R. J. Garden.

Resident Assistant-Physician.
Mr. D. M. Fraser.

Resident Assistant-Surgeon.
Mr. J. H. Walker.

Ophthalmic Surgeon—Dr. Alex. D. Davidson.

Dental Surgeon—Mr. Williamson.

Chloroformist—Dr. P. B. Smith.

Resident Superintendent and Apothecary—Dr. R. Rattray.

Pathologist and Curator of Museum—Dr. J. Rodger.

Treasurer and Secretary—Mr. W. Carnie.

UNIVERSITY OF ST. ANDREWS.

There is no proper Faculty of Medicine in this University, but it is possible for the student to make an *annus medicus* by attendance on certain of the courses—as Natural History, Professor Nicholson, M.D.; Chemistry, Professor Heddle, M.D.; and Anatomy and Medicine, Professor Pettigrew, M.D.

SCHOOLS AND HOSPITALS IN IRELAND.

UNIVERSITY OF DUBLIN.—SCHOOL OF PHYSIC.

THE School of Physic is under the conjoint superintendence of the University authorities and those of the King and Queen's College of Physicians.

LECTURES AND CLASSES.

Anatomy and Surgery—Dr. Benjamin G. M'Dowel.
Botany—Dr. E. Percival Wright.
Chemistry—Dr. J. Emerson Reynolds.
Comparative Anatomy and Zoology—Dr. Alexander Macalister.

Institutes of Medicine—Dr. J. M. Purser.
Materia Medica and Pharmacy—Dr. Aquilla Smith.
Medical Jurisprudence—Dr. Robert Travers.
Physic—Dr. Alfred Hulton.

Midwifery—Dr. Edward B. Sinclair.
Natural Philosophy—Rev. J. Leslie.
Operative Surgery—Dr. Richard G. Butcher.
Ophthalmic Surg.—Mr. H. Wilson.

Practice of Medicine—Dr. W. Moore.
Surgery—Dr. William Colles (Trin. Coll., Dr. Edward H. Bennett).
University Anatomist—Dr. Thomas E. Little.

Winter Session, 1879-80.—The winter session commences on October 1. Lectures will commence on November 1. The dissecting-room will be opened on October 1.

SCHOLARSHIPS AND EXHIBITIONS.

Medical Scholarships.—Two medical scholars are elected annually, by the Board of Trinity College, at an examination held at the end of June—subject to conditions stated in the College Calendar. Each scholarship is worth £20 per annum, and is tenable for two years.

Medical Exhibitions.—The Professors of the School of Physic give three exhibitions annually, amounting altogether in value to £40—subject to conditions prescribed by the Professors themselves.

SIR PATRICK DUN'S HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Consulting Physician.—Dr. Alfred Hudson.

Consulting Surgeon.—Dr. W. Colles.

Clinical Physicians.

Dr. John Malet Purser.
Dr. William Moore.
Dr. Aquilla Smith.

Clinical Surgeons.

Dr. Benjamin G. M'Dowel.
Dr. Thomas E. Little.
Dr. Edward H. Bennett.

Midwifery Physician.
Dr. Edward B. Sinclair.

Lecturer in Operative Surgery.
Dr. Richard G. Butcher.

FEES.

Clinical Lectures and Hospital Attendance.—The payment of £3 3s. to the Hospital entitles any student to attend the clinic of the Hospital for twelve months, and to attend the lectures delivered by Dr. R. G. Butcher, University Lecturer in Operative Surgery. Students who have taken out the degrees of Bachelor in Medicine and Master in Surgery in Trinity College are entitled to attend the Hospital as perpetual free pupils. In addition to the Hospital fee, the payment of a fee of £6 6s. is required for the privilege of attending the clinical lectures. Total fees for Hospital and lectures for twelve months, £12 12s.

Practical Midwifery.—Students desirous of entering for twelve months' instruction in Practical Midwifery are required to pay a maternity fee of £3 3s. each. Students of Trinity College are not liable to any other payment for instruction in Practical Midwifery. Other students are required to pay £3 3s. each to the King's Professor for twelve months' practical instruction, in addition to the Hospital maternity fee. Students who have paid the Hospital maternity fee are entitled to attend the demonstrations in Obstetric Surgery given by the King's Professor. Total fees for College Students, £3 3s.; total fees for Externs, £6 6s.

PRIZES.

Clinical Medals.—The Governors of the Hospital award a Silver Clinical Medal in Medicine to the student who shall pass the best examination on the medical cases treated in the Hospital during the year; and a Silver Clinical Medal in Surgery to the student who shall pass the best examination on the surgical cases treated in the Hospital during the year.

QUEEN'S COLLEGE, BELFAST.

The lectures will commence on Tuesday, November 4.

Anatomy and Physiology—Dr. P. Redfern.	Natural Philosophy—Dr. J. D. Everett.
Chemistry—Dr. Thomas Andrews.	Practice of Medicine—Dr. James Cuming.
Materia Medica—Dr. J. S. Reid.	Practice of Surgery—Dr. A. Gordon.
Medical Jurisprudence—Dr. J. F. Hodges.	Zoology and Botany—Dr. R. O. Cunningham.
Midwifery—Dr. R. F. Dill.	

The demonstrations in Anatomy are delivered by Dr. Anderson. The lectures in Midwifery and in Medical Jurisprudence, and the courses of Botany and Practical Chemistry, and a second course of Experimental Physics, will commence in May.

FEES.

Anatomy and Physiology—First course, £3; each subsequent course, £2. Anatomical Demonstrations and Practical Anatomy—each course, £3. Practical Chemistry, £3. Other medical lectures—first course, £2; each subsequent course, £1.

SCHOLARSHIPS.

Two Medical Scholarships are awarded to the students of each year of the medical course. The examinations commence on October 21.

BELFAST GENERAL HOSPITAL.(a)

FEES.

Clinical Instruction—A winter session, £5 5s. A summer session, £2 2s. Perpetual fee, payable in one sum of £10 10s., or two instalments of £5 5s. each on entering for the first and second years. Hospital fee, 10s. 6d. each winter or summer session.

BELFAST LYING-IN HOSPITAL.(a)

Fee for the session, £3 3s.

QUEEN'S COLLEGE, GALWAY.—FACULTY OF MEDICINE.

LECTURERS.

Anatomy and Physiology, and Practical Anatomy—Dr. J. P. Pye.	Medical Jurisprudence—Dr. R. J. Kinkead.
Botany and Zoology—Dr. A. G. Melville.	Midwifery and Diseases of Women and Children—Dr. R. J. Kinkead.
Chemistry—Dr. T. H. Rowney.	Natural Philosophy—Dr. A. H. Curtis.
Logic and Mental Philosophy—Dr. T. W. Moffett.	Practice of Medicine—Dr. N. Colahan.
Materia Medica—Dr. N. W. Colahan.	Practice of Surgery—Dr. J. V. Brown.

The County Galway Infirmary, Town, and Fever Hospitals are in the immediate vicinity of the Queen's College.

SCHOLARSHIPS AND EXHIBITIONS.

Eight scholarships of the value of £25 each, and exhibitions varying in value from £12 to £16, are appropriated to students pursuing the course for the degree of M.D.

FEES.

Anatomy and Physiology, £3 first session; afterwards £2. Practical Anatomy, £3; Practical Chemistry, £3; Operative Surgery, £3; other classes, £1 for each course extending over one term only, £2 for each course extending over more than one term, and £1 for each re-attendance on the same. Hospitals, £4 4s.

For further information, application may be made to Professor Curtis, M.A., LL.D., Registrar.

QUEEN'S COLLEGE, CORK.—FACULTY OF MEDICINE.

LECTURERS.

Anatomy and Physiology—Dr. J. J. Charles.	Practical Anatomy—The Professor, assisted by Demonstrators.
Chemistry and Practical Chemistry—Dr. Maxwell Simpson.	Practice of Medicine—Dr. D. C. O'Connor.
Materia Medica—Dr. M. O'Keefe.	Practice of Surgery—Dr. W. K. Tanner.
Midwifery—Dr. H. Macnaughton Jones.	Zoology and Botany—Professor A. Leith Adams.
Natural Philosophy—Prof. John England.	

SCHOLARSHIPS.

Eight scholarships are awarded to students in Medicine, if qualified—viz., two scholarships of £25 each to students commencing their first, second, third, and fourth years. Clinical Medicine and Surgery at the North and South Infirmarys, and Clinical Midwifery at the Lying-in Hospital.

THE ADELAIDE HOSPITAL, PETER-STREET, DUBLIN.

MEDICAL AND SURGICAL STAFF.

<i>Physicians.</i> Dr. Henry H. Head. Dr. James Little.	<i>Surgeons.</i> Dr. John K. Barton. Mr. Benjamin Wills Richardson. Dr. Kendal Franks.
<i>Obstetric Physician.</i> Dr. Richd. Purefoy.	<i>Ophthalmic Surgeon.</i> Dr. Richard Rainsford.
<i>Assistant-Physician.</i> Dr. Walter G. Smith.	<i>Dental Surgeon.</i> Dr. R. Theodore Stack.

Further particulars can be obtained from Mr. Richardson, 22, Ely-place, or any other member of the medical staff.

ST. VINCENT'S HOSPITAL, DUBLIN.

HOSPITAL STAFF.

<i>Physicians.</i> Dr. Francis J. B. Quinlan. Dr. Robert Cryan.	<i>Surgeons.</i> Dr. Edward D. Mapother. Mr. William H. O'Leary, M.P.
<i>House-Surgeon.</i> —Mr. M. Hillary.	
<i>Gynaecologist.</i> —Dr. J. A. Byrne.	
<i>Surgeon-Dentist.</i> —Mr. William J. Doherty.	
<i>Apothecary.</i> —Mr. C. T. Boland.	

FEES.

Winter and summer session, £12 12s.; separately, £8 8s. and £5 5s.

(a) No return.

Further particulars may be learned on application to the Secretary, Dr. Quinlan, 29, Lower Fitzwilliam-street, Dublin, or at the Hospital during the hours of attendance.

DR. STEEVENS' HOSPITAL AND MEDICAL COLLEGE, DUBLIN.

MEDICAL AND SURGICAL STAFF.

Visiting Physicians—Dr. W. M. Burke and Dr. H. Freke.
Visiting Surgeons—Mr. S. G. Wilmot and Mr. C. Fleming.

<i>Physicians.</i>	<i>Surgeons.</i>
Dr. T. W. Grimshaw.	Mr. W. Colles.
Dr. Bookey.	Mr. E. Hamilton.
	Mr. R. McDonnell.
<i>Physician-Accoucheur.</i>	<i>Resident Surgeon.</i>
Dr. James Isdell.	Dr. H. Pentland.

Surgeon-Oculist—Mr. Henry R. Swanzy.
Surgeon-Dentist—Mr. J. A. Baker.

LECTURERS.

Anatomy—Dr. Warren, Mr. Fox, Mr. Pentland, and Mr. Neill.	Materia Medica—Dr. Fox.
Anatomy and Physiology—Mr. E. Hamilton.	Medical Jurisprudence—Dr. H. J. Tweedy.
Botany—Dr. Pentland.	Medicine—Dr. Grimshaw.
Chemistry—Mr. McHugh.	Midwifery—Dr. James Isdell.
Institutes of Medicine—Dr. Bookey.	Surgery—Mr. W. Colles.

Curator of the Museum—Dr. F. W. Warren.

FEES.

Hospital Practice, nine months, £12 12s.; ditto, six months, £8 8s. Practical Anatomy, £5 5s. Lectures, each course, £3 3s.

Further particulars may be learned from any of the Professors; from the Resident Surgeon at the Hospital; or from Dr. Edward Hamilton, Hon. Sec., 120, Stephen's-green West.

JERVIS-STREET HOSPITAL, DUBLIN.

MEDICAL AND SURGICAL STAFF.

<i>Physicians.</i>	<i>Surgeons.</i>
Dr. Stephen M. MacSwiney.	Dr. William Martin.
Mr. M. Harry Stapleton.	Mr. Au-tin Meldon.
Dr. J. Stannus Hughes.	Mr. James Edward Kelly.
Mr. J. K. Forrest.	Dr. E. W. Collins.
	Dr. W. Stoker.

This Hospital, which is at present being rebuilt upon an extensive scale, is most central in situation, and in the immediate vicinity of the Catholic University School of Medicine. From its proximity to the quays and principal factories it presents unrivalled opportunities to the students of seeing every form of surgical injury. An extensive Dispensary for out-door patients is attached to the Hospital, at which the students are allowed to perform minor operations, under the guidance of the Surgeon on duty, and are rendered familiar with the details of dispensary practice.

Instruction is given by the Physician and Surgeon on duty on alternate mornings, between nine and eleven o'clock, at the bedside, when the nature, progress, and treatment of each case are explained. Two clinical lectures are delivered each week on the most important cases under treatment, when pathological specimens are exhibited. Surgical instruments and appliances of all kinds are constantly made the subject of special instruction.

Surgical Operations are performed on Saturday mornings, at ten o'clock, except in cases of emergency, when due notice is given, if possible.

Practical Pharmacy is taught under the superintendence of the Apothecary.

Resident Pupils and Dressers are selected from among the most attentive of the advanced students, without payment of any additional fee. Two Interns are appointed each half-year, and are provided with apartments, etc., free of expense. Special Certificates are given to the Resident Pupils and Dressers who have performed their respective duties to the satisfaction of the Physicians and Surgeons.

Certificates of attendance are recognised by all the licensing bodies and examining boards in the United Kingdom.

CARMICHAEL SCHOOL OF MEDICINE, DUBLIN.

WINTER SESSION.

Anatomy—Dr. Loftie Stoncy.	Ophthalmic Surgery—Dr. C. E. Fitzgerald.
Chemistry—Dr. Tichborne.	Practice of Medicine—Drs. Gordon and Moore.
Midwifery—Drs. Jennings and Macan.	Physiology—Dr. Harvey.
Surgery—Messrs. Barton and Corley.	

SUMMER SESSION.

Botany—Dr. McNab.	Pathology—Dr. Woodhouse.
Materia Medica—Dr. Duffey.	Practical Physiology—Dr. Harvey.
Medical Jurisprudence—Mr. H. A. Auchinleck.	Practical Chemistry—Dr. Tichborne.

Prizes to the value of £67 on the foundation of the late Richard Carmichael, Esq., and the Mayne and Carmichael Scholarships, value £15 each, are awarded annually.

For further particulars apply to the Registrar at the School.

CATHOLIC UNIVERSITY SCHOOL OF MEDICINE, CECILIA-STREET, DUBLIN.

LECTURES AND CLASSES.

Anatomy and Physiology—Dr. Hayden and Dr. Cryan.	Natural Philosophy—The Very Rev. Dr. Molloy.
Anatomical Demonstrations—The Professors of Anatomy and Physiology.	Pathology—Dr. Lyons.
Botany—Dr. Sigerson.	Practical Chemistry—Dr. Campbell.
Chemistry—Dr. Campbell.	Theory and Practice of Medicine—Dr. Lyons.
Dissections—Dr. Coppinger, Messrs. Carroll, Redmond, and Kehoe.	Theory and Practice of Midwifery—Dr. Byrne.
Medical Jurisprudence—Dr. MacSwiney.	Theory and Practice of Surgery—Mr. Hayes.
Materia Medica—Dr. Quinlan.	Ophthalmology—(Vacant.)
	Institutes of Medicine—Dr. Nixon.

PRIZES AND EXHIBITIONS.

At the termination of the winter session, public examinations will be held, when, in addition to prizes in each class, the University Exhibition, value £20, will be awarded for the subjects mentioned in the School prospectuses.

At the termination of the summer session, the University Gold Medal, value £7, will be awarded, in addition to the usual prizes in each class.

FEES.

For each course £3 3s., excepting Dissections and Practical Chemistry, which are £5 5s. A reduction of one-sixth is made to perpetual pupils paying the entire of their fees in advance, or in two instalments at the commencement of the first and second years of their course. Parents and guardians are recommended to forward all fees directly, by cheque or order, to the Registrar, Professor Campbell, 36, Leinster-road, Rathmines, or at the School.

Further particulars may be learned from any of the Professors; from the Medical Registrar, Professor Campbell, 36, Leinster-road, Rathmines; or on application at the School.

CITY OF DUBLIN HOSPITAL, UPPER BAGGOT-STREET.(a)

Consulting Physicians—Dr. James Apjohn and Dr. Charles Benson.

Consulting Surgeon—Mr. Joliffe T. Tufnell.

Physicians—Dr. Hawtrej Benson and Dr. J. Magee Finny.

<i>Surgeons</i> —Mr. Henry Gray Croly,	<i>Ophthalmic and Aural Surgeon</i> —Dr.
Dr. William I. Wheeler, and Dr.	Loftie Stoncy.
Henry Fitzgibbon.	<i>Gynaecologist</i> —Dr. Arthur V. Macan.

Fees.—Nine months' hospital attendance, £12 12s.; six months, £8 8s.; three months, £5 5s.

For further particulars apply to Dr. Wheeler, 27, Lower Fitzwilliam-street.

MATER MISERICORDIÆ HOSPITAL, ECCLES-STREET, DUBLIN.

MEDICAL AND SURGICAL STAFF.

<i>Physicians.</i>	<i>Consulting Surgeon.</i>
Dr. John Hughes.	Mr. Francis R. Cruise.
Dr. Thomas Hayden.	
Dr. Christopher J. Nixon.	<i>Surgeons.</i>
<i>Assistant-Physician.</i>	Mr. Patrick J. Hayes.
Dr. Joseph M. Redmond.	Mr. Charles Coppinger.
	Mr. Malachi Kilgarriff.
<i>Assistant-Surgeon</i> —Mr. Kennedy.	

This Hospital contains 250 beds, including fifty beds for fever and other contagious diseases.

Certificates of attendance upon this Hospital are recognised by all the licensing bodies in the United Kingdom.

PRIZES.

Two clinical prizes (the "Leonard Prizes") of £15 each, one medical and one surgical, will be given at the end of the winter session, in accordance with the directions contained in the will of the late Mark Leonard, Esq., for the best report of not less than twenty cases for each prize; the cases reported to be those occurring in the Hospital during the winter session.

Fee for nine months, £12 12s.; six winter months, £8 8s.; three summer months, £5 5s.

(a) No return.

Further particulars may be learned by application to Dr. Nixon, Secretary to the Medical Board, 32, Upper Merrion-street, or to any of the other medical officers.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

MEDICAL AND SURGICAL STAFF.

Physicians.	
Dr. Arthur Wynne Foot.	Dr. John William Moore.
Surgeons.	
Mr. George H. Porter.	Mr. Rawdon Macnamara.
Mr. James H. Wharton.	Mr. Lambert H. Ormsby.
Mr. Philip Crampton Smyly.	Mr. William J. Hepburn.

The ensuing winter session will commence on October 1, and the course of clinical lectures on the first Monday in November.

Clinical lectures, of which four will be delivered weekly, and instructions in Medicine and Surgery, will be given on alternate days.

The Physicians and Surgeons on duty will visit the Hospital at 9 a.m., so as to allow the members of the class to be in attendance at their respective Schools of Medicine at 11 a.m.

The Hospital, which contains 120 beds for the reception of medical and surgical cases, and to which an extensive dispensary (open daily), lending library, and physical laboratory are attached, is within a few minutes' walk of the University, the Royal College of Surgeons, the Carmichael College of Medicine and Surgery, and the Ledwich School of Medicine.

An additional ward has been erected for the reception of children, in which the pupils will have an opportunity of studying that highly important subject—infantile disease.

Certificates of attendance at this Hospital are recognised by all the universities, colleges, and licensing bodies in the United Kingdom.

Prizes will be given at the termination of the winter course to the best answerers in their respective classes.

The office of Resident Pupil is open to pupils as well as apprentices.

Further information may be obtained on application to Lambert H. Ormsby, Esq., Hon. Sec., 12, Lower Fitzwilliam-street, Dublin; or at the Hospital.

MERCER'S HOSPITAL, WILLIAM-STREET, DUBLIN.

STAFF.

Physicians—Dr. T. P. Mason and Dr. George F. Duffey.
Surgeons—Mr. E. S. O'Grady, Mr. Alcock Nixon, and Mr. M. A. Ward.

This Hospital, one of the first founded in Dublin, is situated in a central position, and is in close proximity to the Schools of the Royal College of Surgeons, the Carmichael College of Medicine and Surgery, Catholic University, and the Ledwich.

Fees for the winter and summer session (nine months) £12 12s.; for the six winter months, £8 8s.; for the three summer months, £5 5s.

Further information can be obtained from any of the medical officers of the Hospital, or from Dr. James Shaw, Secretary to the medical staff.

ROYAL COLLEGE OF SURGEONS IN IRELAND. SCHOOL OF SURGERY.

LECTURES.—WINTER SESSION.

Anatomy and Physiology—Dr. Mapother.	Surgery—Mr. J. Stannus Hughes and Mr. Stokes.
Descriptive Anatomy—Dr. Bevan and Mr. Thornley Stoker.	Practice of Medicine—Dr. James Little.
Midwifery—Dr. Roe.	Chemistry—Dr. Cameron.

SUMMER SESSION.

Materia Medica—Mr. Macnamara.	Midwifery—Dr. Roe.
Medical Jurisprudence—Dr. Davy.	Hygiene—Dr. Cameron.
Botany—Dr. Minchin.	Ophthalmic and Aural Surgery—Mr. Swanzy.
Practical Chemistry—Dr. Cameron.	

A public course of lectures on Comparative Anatomy will be delivered by the Professor of Anatomy and Physiology, at the commencement of the session, and additional lectures on the same subject will be delivered during the winter.

The dissections are under the direction of the Professor of Anatomy, assisted by the demonstrators, who will daily attend to give instruction and to assist the students.

The fee for each course of lectures is £3 3s., excepting Descriptive Anatomy, which is £8 8s., Practical Chemistry, which is £5 5s., and Ophthalmic and Aural Surgery and Hygiene, which are free.

A composition fee of £56 17s. 6d. is taken as payment in full for all lectures and dissections required for the diploma in Surgery.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.

MEDICAL AND SURGICAL STAFF.

Consulting Physician—Sir D. J. Corrigan, Bart.
Consulting Obstetric Surgeon—Dr. Kidd.

Physicians.

Dr. J. T. Banks.
Dr. B. G. M'Dowel.
Dr. S. Gordon.
Dr. R. D. Lyons.

Surgeons.

Mr. William Stokes.
Mr. William Thomson.
Mr. W. Thornley Stoker.
Mr. A. Corley.

Assistant Physician—Dr. Reuben J. Harvey.
Ophthalmic Surgeon—Dr. Charles E. Fitzgerald.
Dental Surgeon—Mr. W. B. Pearsall.
Resident Surgeon—Mr. R. J. Martyn.

Clinical instruction will commence on October 1. These Hospitals contain 312 beds—110 for surgical cases, 82 for medical cases, and 120 for fever and other epidemic diseases. Premiums will be awarded in Clinical Medicine and Surgery. The Richmond Institution for the Insane, containing over 1000 patients, adjoins these Hospitals.

FEES.

For the winter and summer session (nine months), £12 12s.; for the six winter months, £8 8s.; for the three summer months, £5 5s. Resident clinical clerks, £21 for the winter session, £15 5s. for the summer session, including certificate of attendance.

Application to be made to Dr. Gordon, 13, Hume-street, or to Mr. Stokes, 5, Merrion-square North, Dublin.

LEDWICH SCHOOL OF ANATOMY, MEDICINE, AND SURGERY, PETER-STREET, DUBLIN.

COURSES OF LECTURES.

Anatomy, Physiology & Pathology, etc.—Mr. T. P. Mason, Mr. A. Ward, and Mr. T. Mason.	Ophthalmic Surgery—Mr. Rainsford.
Forensic Medicine and Hygiene—Dr. R. Travers.	Surgical and Descriptive Anatomy, Demonstrations, and Dissections—Mr. Mason, Mr. Glanville, Mr. Ward, Mr. Robinson, Mr. Nixon, Mr. Porter, Mr. Kennedy, Mr. Baxter, Mr. Madden, Mr. E. Ledwich, Mr. Knight, and Mr. Gaffney.
Institutes of Medicine—Mr. Nixon and Mr. Ledwich.	Theory and Practice of Surgery—Mr. Wharton and Mr. Kelly.
Materia Medica and Therapeutics—Dr. Purefoy.	Theory and Practice of Medicine—Dr. Foot.
Midwifery and Diseases of Women and Children—Dr. S. A. Mason.	
Theory of Chemistry, Practical Chemistry, & Natural Philosophy—Dr. Lapper.	

The fee for each of the above courses will be £3 3s.

A course of operations to be performed by the students, under the superintendence of the lecturers (subjects, etc., included), £5 5s.

Further information may be obtained from any of the lecturers; from Mr. T. P. Mason, 92, Harcourt-street, and Mr. M. A. Ward, 9, Rathmines-road, Joint Secretaries; or from Mr. F. A. Nixon, 33, Harcourt-street, Registrar.

ZULU PRISONERS IN MILITARY HOSPITALS.—Surgeon-Major Charles M. D. Chauffe, writing from "Camp in Zululand," on August 7, to our contemporary the *Times*, states that "as far as General Wood's column is concerned, wounded prisoners were frequently patients in the Field Hospital; and the Base Hospital, Utrecht, a building hired by me, with General Wood's sanction, for the treatment of natives, was constantly occupied by wounded Zulus, and attended to by our staff. The prisoners themselves wondered at this kindness, and frequently told us that had our wounded fallen into their hands they would have assegaied them without mercy."

HEALTH OF LONDON.—The annual death-rate from all causes, in London, which in the two preceding weeks had been equal to 19.1 and 20.0, was 20.1 last week, ending Saturday, September 6. During the past ten weeks of the current quarter the death-rate has averaged only 18.5 per 1000, against 22.9, 19.7, and 23.1 in the corresponding periods of the three years 1876-77-78. The deaths from diarrhoea, which had increased from 25 to 209 in the six preceding weeks, declined last week to 146, and were 19 below the corrected average; 106 were of infants under one year of age, and 30 of children aged between one and five years. The deaths of two infants, aged three and four months, in St. Bartholomew's Hospital, admitted from Clerkenwell, were referred to pyæmia and inflammation following vaccination. The deaths from diseases of the lungs were 143, and corresponded with the corrected average. Nine cases of suicide were registered, the corrected average being only five.

TABLE OF FEES FOR HOSPITAL LECTURES AND ATTENDANCE.

(The letter "i." denotes Single Course; "ii." Two Courses, Perpetual or Unlimited Attendance.)

	ST. BARTHOLOMEW'S.	CHANCING CROSS.	ST. GEORGE'S.	GUY'S.	KING'S COLLEGE.	LONDON.	ST. MARY'S.	MIDDLESEX.	ST. THOMAS'S.
Anatomy. . .	i. £9 9s. ii. £13 2s. 6d.	1st yr. £4 4s. 2nd yr. £2 2s.	i. £7 7s. ii. £8 18s. 6d.	i. £7 7s.	i. £9 9s. ii. £12 12s. (inc. Pr. An.)	i. £5 5s. ii. £6 6s.	i. £7 17s. 6d.	i. £8 8s. ii. £12 12s.	i. £6 6s. ii. £10 10s.
Demonst. and Dissections .	i. £7 7s.	1st yr. £3 3s. 2nd yr. £2 2s.	i. £3 3s.	i. £7 7s.	i. £6 6s. ii. £9 9s.	i. £5 5s. ii. £8 8s.	i. £1 15s.	i. £6 6s. ii. £8 8s.	3 mos. £4 4s. 6 mos. £6 6s. ii. £10 10s.
Physiology . .	i. £9 9s. ii. £13 2s. 6d.	1st yr. £4 4s. 2nd yr. £2 2s.	i. £7 7s. ii. £8 18s. 6d.	i. £7 7s.	i. £8 8s. ii. £11 11s.	i. £4 4s. ii. £6 6s.	i. £4 4s.	i. £6 6s. ii. £8 8s.	i. £6 6s. ii. £10 10s.
Practical Physiology . .	i. £7 7s.	i. £2 2s.	i. £3 3s.	i. £7 7s.	i. £6 6s. ii. £8 8s.	i. £3 3s. ii. £4 4s.	i. £4 4s.	i. £4 4s.	i. £4 4s.
Histology . .	i. £2 12s. 6d.	...	i. £3 3s.	...	...	i. £3 3s.	...	...	...
Chemistry . .	i. £6 16s. 6d. ii. £9 9s.	i. £5 5s.	i. £7 7s. ii. £8 18s. 6d.	i. £7 7s.	i. £8 8s. ii. £11 11s.	i. £7 7s. ii. £7 7s.	i. £6 16s. 6d.	i. £6 6s. ii. £8 8s.	i. £6 6s. ii. £10 10s.
Practical Chemistry	i. £3 3s.	i. £3 3s.	i. £4 4s.	i. £7 7s.	i. £6 6s. ii. £8 8s.	i. £2 2s., or £5 5s.	i. £4 4s.	i. £3 3s.	i. £4 4s.
Botany . . .	i. £4 4s. ii. £5 5s.	i. £3 3s.	i. £3 13s. 6d. ii. £4 14s. 6d.	i. £5 5s.	i. £4 4s. ii. £6 6s.	i. £3 3s. ii. £4 4s.	i. £4 4s.	i. £4 4s. ii. £5 5s.	i. £3 3s. ii. £5 5s.
Com. Anatomy	i. £2 12s. 6d. ii. £4 4s.	i. £3 3s.	£4 4s.	i. £5 5s.	i. £4 4s. ii. £6 6s.	i. £3 3s. ii. £4 4s.	i. £2 12s. 6d.	i. £3 3s.	i. £3 3s. ii. £5 5s.
Medicine. . .	i. £6 16s. 6d. ii. £9 9s.	1st c. £4 4s. 2nd c. £2 2s.	i. £7 7s. ii. £8 18s. 6d.	i. £7 7s.	i. £8 8s. ii. £9 9s.	i. £5 5s. ii. £6 6s.	i. £5 5s.	i. £6 6s. ii. £8 8s.	i. £6 6s. ii. £10 10s.
Practical Med.	...	...	i. £4 4s.	...	...	...	...	...	...
Surgery . . .	i. £6 16s. 6d. ii. £9 9s.	1st c. £4 4s. 2nd c. £2 2s.	i. £7 7s. ii. £8 18s. 6d.	i. £7 7s.	i. £8 8s. ii. £9 9s.	i. £5 5s. ii. £6 6s.	i. £5 5s.	i. £6 6s. ii. £8 8s.	i. £6 6s. ii. £10 10s.
Practical Surgery	i. £6 16s. 6d. ii. £9 9s.	...	i. £4 4s.	i. (Op.) £7 7s. (Prac.) £4 4s.	i. £3 3s. ii. £5 5s.	i. £6 6s.	i. £4 4s.	i. £6 6s.	i. £4 4s.
Operative Surg.	£5 5s.	...	£2 2s.	...	...	...	...	i. £5 5s.	...
Midwifery . .	i. £6 16s. 6d. ii. £7 17s. 6d.	i. £3 3s.	i. £4 14s. 6d. ii. £5 15s. 6d.	i. £7 7s.	i. £5 5s. ii. £6 6s.	i. £4 4s. ii. £6 6s.	i. £5 5s.	i. £4 4s. ii. £5 5s.	i. £4 4s. ii. £6 6s.
Pathology . .	i. £2 12s. 6d. ii. £4 4s.	i. £3 3s.	i. £3 3s.	i. (Dem.) £7 7s. (Lect.) £3 3s.	i. £3 3s. ii. £4 4s.	i. £3 3s. ii. £6 6s.	i. £4 4s.	i. £4 4s. ii. £5 5s.	i. £3 3s. ii. £5 5s.
Materia Medica	i. £6 16s. 6d. ii. £7 17s. 6d.	i. £3 3s.	i. £4 14s. 6d. ii. £5 15s. 6d.	i. £5 5s.	i. £5 5s. ii. £6 6s.	i. £3 3s. ii. £4 4s.	i. £5 5s.	i. £4 4s. ii. £5 5s.	i. £3 3s. ii. £5 5s.
Forensic Medicine	i. £4 4s. ii. £5 5s.	i. £3 3s.	i. £4 14s. 6d. ii. £5 15s. 6d.	i. £5 5s.	i. £5 5s. ii. £6 6s.	i. £3 3s. ii. £4 4s.	i. £4 4s.	i. £4 4s. ii. £5 5s.	i. £3 3s. ii. £5 5s.
Ophth. Surgery	i. £2 12s. 6d. ii. £4 4s.	...	...	...	...	i. £2 2s. ii. £3 3s.	i. £2 12s. 6d.	...	i. £2 2s. ii. £3 3s.
Dental Surgery	i. £2 12s. 6d. ii. £4 4s.	...	...	...	...	£2 2s.	i. £2 12s. 6d.	...	i. £2 2s. ii. £3 3s.
Mental Dis.	i. £2 12s. 6d. ii. £4 4s.	...	...	£3 2s.	...	...	...	i. £3 3s.	i. £2 2s. ii. £3 3s.
Public Health	£2 12s. 6d.	£1 1s.	...	£3 3s.	...	...	...	i. £3 3s.	i. £2 2s. ii. £3 3s.
Library . . .	1 year, 10s.	£1 1s.	Each winter, 10s. 6d.	...	£1 1s.	£1 1s.	£1 1s.	£1 1s.	£1 1s.
Hospital Practice	<i>Medical.</i> 3 mos. £10 10s. 6 mos. £15 15s. 2 yrs. £23 12s. 6d. Unlimited, £33 1s. 6d. <i>Surgical.</i> 3 mos. £13 2s. 6d. 6 mos. £19 19s. 12 mos. £26 5s. Unlimited, £33 1s. 6d.	<i>Med. or Surg.</i> 3 mos. £6 6s. 6 mos. £10 10s. 12 mo. £15 15s. Full period £21 <i>Med. and Surg.</i> 3 mos. £10 10s. 6 mos. £15 15s. 12 mos. £21 Full period, £31 10s.	<i>Med. or Surg.</i> 6 mos. £10 10s. 2 yrs. £21 Perp. £31 10s. <i>Med. and Surg.</i> 6 mos. £21 2 yrs. £42 Perp. £63	<i>Med. or Surg.</i> 3 mos. £10 10s. 6 mos. £15 15s. 1 yr. £24 3s. Perp. £31 10s. <i>Med. and Surg.</i> 3 mos. £15 15s. 6 mos. £24 3s. 1 yr. £31 10s. Perp. £47 5s.	<i>Med. or Surg.</i> 1 sum. £5 5s. 1 win. £9 9s. 1 yr. £12 12s. Perp. £31 10s. <i>Med. and Surg.</i> 1 sum. £8 8s. 1 win. £14 14s. 1 yr. £18 18s. Perp. £42	Perp. £52 10s. <i>Medical.</i> 6 mos. £6 6s. Per. req. by Hall, £12 12s. Perp. £21. <i>Surgical.</i> 6 mos. £8 8s. 12 mo. £12 12s. 18 mo. £18 18s. 3 yrs. £26 5s. Ditto, £31 10s.	Full period, £46 14s. 6d. <i>Medical.</i> 3 mo. £6 16s. 6d. 6 mo. £9 9s. 12 mo. £15 15s. 18 mo. £19 19s. Perp. £26 5s. <i>Surgical.</i> 3 mo. £7 17s. 6d. 6 mo. £11 11s. 12 mo. £26 5s. Perp. £38 17s.	<i>Med. or Surg.</i> Perp. £15 15s. 1 yr. £8 8s. 6 mos. £5 5s. <i>Med. and Surg.</i> Perp. £25 5s., or £10 10s. at beginning of 1st and 2nd years, and £5 5s. each subsequent year. 6 mos. £7 7s.	<i>Med. and Surg.</i> 3 mos. £10 6 mos. £18 9 mos. £25 12 mos. £30 Perp. £45

We have endeavoured to make this table as complete and correct as possible, but from imperfect returns and deficient information perfect accuracy cannot be vouched for.

Many classes which to outside students are chargeable in heavy sums are gratuitous to the regular students of the various schools.

Totals cannot here be given for the same reason, and because many classes are extra.

Information as to the mode of paying fees, and their amount, is appended to the notice of each school.

TABLE OF FEES FOR HOSPITAL LECTURES AND ATTENDANCE

(The letter "i." denotes Single Courses; "ii." Two Courses, Perpetual or Unlimited Attendance.)

	UNIVERSITY COLLEGE.	WESTMINSTER.	OWENS COLL., MANCHESTER.	QUEEN'S COLL. BIRMINGHAM.	LEEDS.	LIVERPOOL.	BRISTOL.	NEWCASTLE.	SHEFFIELD.
Anatomy . . .	i. £11 11s. ii. with 3 yrs. Pract. Anatomy, £16 16s.	1st c. £6 6s. subs. c. £2 2s.	i. £5 5s.	i. £6 6s.	i. £6 6s.	2 cs. ea. £4 4s.; 3, £2 2s.	i. £5 5s. ii. £8 8s.	i. £4 4s.	1 c. £4 4s. 2 c. £2 2s.
Demonst. and Dissections		3 mos. £4 4s. 6 mos. £6 6s.	6 mos. £3 3s. 3 mos. £2 2s.	i. £5 5s.	...	i. £3 3s.	...	...	In above.
Physiology . .	i. £8 8s. ii. £10 10s.	1st c. £6 6s. subs. c. £2 2s.	i. £5 5s.	i. £6 6s.	i. £6 6s.	1 & 2 cs. each £4 4s.; 3, £2 2s.	i. £5 5s. ii. £8 8s.	i. £4 4s.	1 c. £3 3s. 2 c. £2 2s.
Practical Physiology	i. £8 8s. add. c. £2 2s.	c. £7 7s. either division. £3 3s.	i. £4 14s. 6d.	...	i. £6 6s.	...	i. £3 3s. ii. £5 5s.	...	i. £3 3s.
Histology . . .	...	...	...	...	...	...	...	...	...
Chemistry . . .	i. £7 7s. ii. £9 9s.	1st c. £6 6s. subs. cs. £2 2s.	i. £3 3s. Org. i. £3 10s.	i. £5 5s.	i. £4 4s.	1 c. £5 5s.; 2 and 3, each £2 12s. 6d.	i. £5 5s. ii. £7 7s.	i. £5 5s.	i. £4 4s.
Practical Chemistry	i. £5 5s. sec. c. £3 3s.	1 c. £4 4s.	i. £4 4s.	i. £4 4s.	i. £3 3s.	i. £3 3s.	i. £3 3s. ii. £5 5s.	...	i. £3 3s.
Botany . . .	i. £3 13s. 9d. ii. £5 5s.	1 c. £3 3s. 2 cs. £4 4s.	i. £2 12s. 6d.	i. £4 4s.	i. £4 4s.	1 c. £3 3s.; 2 and 3, each £1 11s. 6d.	i. £3 3s. ii. £5 5s.	i. £4 4s.	i. £3 3s.
Com. Anatomy	i. £5 5s. ii. £7 7s.	1 c. £2 2s. 2 cs. £3 3s.	i. £4 14s. 6d.	i. £3 3s.	i. £1 1s.	1 c. £3 3s.; 2, £2 2s.; 3, £1 1s.	i. £4 4s.	...	...
Medicine . . .	i. £9 9s. ii. £11 11s.	1st c. £5 5s. subs. c. £2 2s.	i. £5 5s.	i. £6 6s.	i. £5 5s.	1 and 2 c. each £4 4s.; 3, £2 2s.	i. £5 5s. ii. £8 8s.	i. £4 4s.	1 c. £4 4s. 2 c. £2 2s.
Practical Med.	...	...	...	...	...	...	...	...	...
Surgery . . .	i. £7 7s. ii. £8 8s.	1st c. £5 5s. subs. c. £2 2s.	i. £5 5s.	i. £6 6s.	i. £5 5s.	1 c. £4 4s. 2 & 3, ea. £1 1s.	i. £5 5s. ii. £8 8s.	i. £4 4s.	i. £4 4s.
Practical Surgery	i. £6 6s. sec. c. £4 4s.	1st c. £5 5s. subs. c. £2 2s.	...	...	...	...	i. £4 4s. ii. £6 6s.	...	i. £3 3s.
Operative Surg.	...	...	...	...	...	...	...	...	...
Midwifery . . .	i. £6 6s. ii. £7 7s.	1 c. £3 3s. 2 cs. £4 4s.	i. £4 4s.	i. £5 5s.	i. £4 4s.	1 c. £4 4s.; 2 & 3, each £2 2s.	i. £4 4s. ii. £6 6s.	i. £4 4s.	i. £3 3s.
Pathology . . .	i. £6 6s. ii. £7 7s.	1 c. £3 3s. 2 cs. £4 4s.	i. £4 4s.	...	i. £3 3s.	1 c. £3 3s.; 2 and 3, each £1 11s. 6d.	i. £3 3s. ii. £4 4s.	i. £4 4s.	...
Materia Medica	i. £6 6s. ii. £7 7s.	1 c. £3 3s. 2 cs. £4 4s.	i. £4 4s.	i. £4 4s.	i. £4 4s.	1 c. £4 4s.; 2 & 3, each £2 2s.	i. £4 4s. ii. £5 5s.	i. £4 4s.	i. £3 3s.
Forensic Medicine	i. £4 4s. ii. £5 5s.	1 c. £3 3s. 2 cs. £4 4s.	i. £4 4s.	i. £4 4s.	i. £4 4s.	1 c. £3 3s.; 2 & 3, ea. £1 11s. 6d.	i. £3 3s. ii. £5 5s.	i. £4 4s.	i. £3 3s.
Ophth. Surgery	i. £1 1s.	i. £1 1s.	i. £3 3s.	i. £3 3s.	...	i. £1 1s.	...	...	...
Dental Surgery	i. £2 2s.	i. £2 2s.	...	i. £3 3s.	...	i. £2 2s.	...	...	...
Mental Dis.	...	i. £1 1s.	...	...	...	...	...	...	...
Public Health	i. £2 2s.	...	...	...	...	...	...	...	...
Library . . .	...	£1 1s.	...	...	£1 1s.	i. 10s. 6d. ii. £1 1s.	£1 1s.	...	...
Hospital Practice	Med. and Surg. Perp. £27 1 yr. £10	Med. or Surg. 3 mos. £5 5s. 6 mos. £8 8s. Each subseqnt 6 mos. £4 4s. 3 yrs. £21 Med. and Surg. 3 mos. £9 9s. 6 mos. £12 12s. Each subseqnt 6 mos. £6 6s. 3 yrs. £31 10s.	Royal Infirm. Full per. £42; or 2 instal- ments, £22 Medical. 3 mos. £6 6s. 6 mos. £9 9s. 12 mo. £12 12s. Full period. £18 18s. Surgical. 3 mos. £9 9s. 6 mos. £12 12s. 12 mo. £18 18s. Full p. £31 10s.	General and Queen's Hospitals. 4 yrs. £42, or in two equal sums 1 yr. £21 6 mos. £14	Infirmery. Med. or Surg. 1 win. £7 7s. 1 sum. £6 6s. 12 mo. £12 12s. 18 mo. £15 15s. 3 yrs. £21 Perp. £26 15s.	Royal Infirm. Perp. £33 12s. Medical. 3 mos. £3 3s. 6 mos. £5 5s. 12 mos. £6 6s. Surgical. 3 mos. £4 4s. 6 mos. £6 6s. 12 mos. £8 8s.	Royal Infirm. Medical. 6 mos. £8 1 yr. £15 18 mos. £20 Perp. £20 Surgical. 1 yr. £12 12s. 2 yrs. £21 3 yrs. £26 5s. General Hos. Med. or Surg. 6 mos. £6 12 mos. £10 Perp. £25	Infirmery. 3 mos. £4 4s. 6 mos. £5 5s. 12 mos. £7 7s. Perp. £17 17s. or 1st year, £7 7s.; 2nd year, £6 6s.; 3rd yr. £5 5s.	Gen. Infirm., or Public Hos. Perpet. Med. £15 15s.; perp. Surg. £21 Med. or Surg. 6 mos. £6 6s. 12 mo. £10 10s.

We have endeavoured to make this table as complete and correct as possible, but from imperfect returns and deficient information perfect accuracy cannot be vouched for.

Many classes which to outside students are chargeable in heavy sums are gratuitous to the regular students of the various schools.

Totals cannot here be given for the same reason, and because many classes are extra.

Information as to the mode of paying fees, and their amount, is appended to the notice of each school.

THE STUDENT BEGINNING TO WORK.

TO ENTERING STUDENTS.

It is always a most difficult and serious duty, though at the same time a most agreeable one, to have to address a body of young men, and especially a generation of entering medical students. There is on the one hand the common and natural repugnance evinced by the cheerful and buoyant minds of healthy young men to anything of the nature of sermonising, and on the other hand the impossibility of doing more in an address like the present than giving advice of the most general character, suited to the circumstances, not of individuals, but of the general mass of students. But counteracting in some measure these depressing considerations, there is the inspiring reflection that a timely suggestion may supply to many a cheerful but earnest youth such a hint regarding the ordering of his career as may cause him to direct to practicable, useful, and honourable objects the talents and energies which might otherwise have either been allowed to lie uncultivated or been stunted and checked by a mistaken procedure in the early stages of professional study.

When a young man leaves the quiet home of his youth and the carefully regulated routine of school life for the prosecution of professional studies at a medical school and hospital, he enters upon that period of his life which has greater influence than any other in the making or marring of his future career, both as a man and as a member of an honourable profession. Quite apart from an entire change in the nature of his studies, there is a complete revolution in his general mode of life. He is now, and in most cases for the first time, set free in great measure from the restraints of paternal or pedagogic solicitude, and exposed to the most exciting and captivating temptations at a stage of his existence when strong, new-born emotions impel him to enter with the greatest zest on the gaieties and pleasures of town life. There is the additional fact that he is now intimately associated with a number of young men whose genial companionship may be a means of leading him into habits and scenes which of themselves might have had few or no attractions for him.

The most thoughtless youth must therefore see how true is the unanimous testimony of all who have passed out from the medical schools to the busy work of professional life, that it is impossible to overrate the all-affecting influence of the manner in which the years, and especially the earlier years, of medical study are spent. Not that a medical man ceases to be a hard-working student when he obtains his licence or diploma, or even that the greatest amount of professional knowledge must be acquired during the first year or two of student life. What ought chiefly to make his first introduction to the studies at the medical school and hospital a matter of great solicitude to the young man is the fact that it is in these few short months that those habits and tastes are formed which are the paramount elements in determining the character and tone of his whole future life. For even if his natural abilities are of the highest order, and the natural tendencies of his mind are only towards what is honourable and noble, should he be so foolish as to allow himself to indulge in habits of idleness or dissipation during the first year of his student-life, the chances are unfortunately all against his ever completely undoing the great wrong he has inflicted upon himself. He may by subsequent severe and hurried intellectual efforts seem to make up for lost time so as to pass his examinations satisfactorily along with his companions, but the knowledge which is acquired by fits and starts in this cramming method is usually forgotten just as quickly, and intellectual efforts of

this character are most damaging to the mental powers. The great mischief, however, is that the student has suffered himself to become the victim of habits which will only grow more powerful and hurtful as time advances, and will certainly interfere most seriously with his future success. And only those who have had the bitter experience can realise the extreme difficulty with which a student who has once entered on foolish and idle practices can disentangle himself from the meshes of the snare in which he has involved himself; for not only does his own resolution become enfeebled by indulgence, but the continual presence of his boon companions is of itself almost fatal to any efforts towards amendment. Besides all this, the young student ought to know that, however honourable and praiseworthy may be his course of life after he has left his hospital and has entered upon private practice, the companions of his youth will never forget his character and habits at the medical school, but will continue to attribute to him the mental and moral peculiarities he displayed in their midst.

We hope, however, that we have said nothing calculated to give the notion that medical students ought to be a long-faced, melancholy set of young men. Nothing could be further from our intention. On the contrary, we think that an honest and earnest devotion to the study of medicine is not only compatible with, but is greatly assisted by, a healthy cheerfulness, and a moderate and timely indulgence in social pleasures and amusements. It is almost unnecessary for us, at this time of day, to deprecate those rough and rude manifestations which have sometimes in former days brought the whole genus of medical students into temporary notoriety. At the present time our duty in this connexion is rather of an opposite nature—viz., to give a word of warning, most needed by some of the ablest and most earnest of medical students, against the entire neglect of the opportunities they may possess for subjecting themselves to the refining and humanising influences of social life. For young medical men, almost more than the members of any other learned profession, require to be reminded that they are members of society in general as well as of the noble guildry of medicine, and that there are many reasons why they should take care that they do not injure themselves or their profession by their refusal to take advantage of the educative and civilising influences of occasional indulgence in the amusements and recreations of general society. Of course we should deprecate the bestowal of time and attention on anything that would really interfere with efficiency in professional acquirements or with carefulness in the discharge of professional duties, but we are afraid it must be confessed that the weight and influence of our profession for good in the world has not seldom been seriously impaired by the want of that tact and refinement which the world naturally expects to find in the members of a philanthropic profession like that of medicine. We would therefore insist upon attention to his duties in this respect as strongly as we would warn the young student against the danger he runs of allowing himself to forget that the more laborious, yet most interesting, work of regular and diligent professional study ought always to engage his first and most conscientious concern.

This leads us to say a word regarding general or non-professional education. This should, in the case of every medical student, be as complete as possible. In another column our readers will find detailed advice regarding the preliminary examinations in the subjects of general education which must be passed by everyone before he can enter upon the study of medicine. But after this is done the student must not suppose that he can entirely neglect all but strictly professional studies without his being a great loser by the omission. He ought, even for selfish reasons, to find opportunity for occasional walks in the fields of

polite literature, or even for cultivating any of the fine arts most congenial to himself, and demanding least of his time and energy. In particular, if he has any ambition to rise above an existence of merely mechanical routine, he must see that his knowledge of the sciences which have the most direct applications to the healing art be kept sufficiently complete and exact to enable him to understand their ever-increasing applications to preventive and curative medicine.

It is entirely unnecessary for us to say anything here as to the order or method of pursuing his professional studies when he has once entered the medical school. There will be found elsewhere in our columns some remarks on the subject, and for any other information the student may desire he ought to apply to the teachers at his school, who will be only too glad to give him the best advice they can in everything pertaining to his welfare. He will find that the order and methods of his professional studies are in great measure already determined for him; but there is one advice we would again expressly urge upon him—viz., that he ought, from the very first, to work regularly and diligently at all the subjects he is called upon to study. He may think, in regard to some of them, that he can at first afford to pass them over lightly, as so long a time will elapse before he is called upon to show his knowledge of them in the examination-room. But he should remember that it is only when he is studying the different subjects under the teachers of the various departments that he has time and opportunity to master all the details, and to find ready explanations and assistance in any difficulties he may meet with. He ought also to know that even the ablest and most diligent students find that the four years of the curriculum are far too short for enabling them to acquire as much professional knowledge as they could desire before entering upon private practice, and voluntarily expend additional time and expense in a more protracted course of study.

We have alluded to professional examinations. Of these the student will soon hear enough, and his efforts will be directed to fitting himself to pass them in a manner creditable to himself and to his teachers. But we would have the student recollect that there is much, very much, which even the most careful examination cannot find out or gauge. And the aim of the ingenious youth entering upon the study of medicine should be a far loftier one than that of merely passing a creditable examination. His whole energies should from the first be devoted to the duties he owes to his friends, to his teachers, to the public, and to himself, in preparing all his faculties, mental and physical, for the faithful, efficient, and honourable discharge of the beneficent labours of our noble profession.

WHAT A STUDENT HAS TO EXPECT AS REGARDS EDUCATION.

The system of medical education in this country would be a mystery were it not that its history makes much that is otherwise obscure clear and easily understood. It may be said that all medical education in England had its foundation in apprenticeship, to which, after a time, was added a period of hospital instruction—mainly confined to surgery—most appropriately called “walking the hospitals.” No better picture could be drawn of the condition of medical education a hundred years ago than is furnished by Smollett’s “Roderick Random,” in which the author—himself a “doctor”—pours many of the vicissitudes of his own life. Then came the gradually increasing power of the College of Surgeons, and the almost exclusive study of anatomy, together with a very little surgery. The College of Physicians would not deign to take in hand the educa-

tion of the general practitioner, which was abandoned to a City Company—the Society of Apothecaries, a body constantly overshadowed by the more masterful corporation in Lincoln’s-inn-fields. By degrees, subject after subject was added, according to the notions of the day; but examinations on them were often forgotten, and instruction in them remained a name and a shade. But all this was done by hap-hazard; there was no real attempt to formulate an exact and complete system of medical education. In Scotland, on the other hand, where the education of the medical student has been almost entirely under the control of the university authorities, matters have been managed otherwise. The course of education has always been more systematic, but it has often lacked in the practical almost as much as was gained from the theoretical point of view. There have been and are faults in both systems, but we fear that, on the whole, they have been greater on this side of than beyond the border. Certain it is that the amount of theoretical knowledge bestowed upon the average English student is nominal. We do not refer to the University of London regimen, where this is overdone, but to the ordinary candidate who desires to present himself at College and Hall, or perhaps at the College of Physicians. This is not perhaps very greatly to be regretted, inasmuch as the teaching of this kind cannot under our system be thorough, and always tends to be more or less perfunctory; but we distinctly hold that its absence is matter for regret; and that some at least of the subjects are not taught more in that *ex cathedra* style which has its merits as well as its demerits, is a blot on our system.

We have all for a long time now been waiting eagerly for the appearance of what is generally known as the Conjoint Scheme, whereby every medical student in England would have to conform to certain minimum requirements, and to pass a minimum examination, which alone would entitle him to receive the diploma of at least two bodies. The object of this scheme was twofold: it aimed at reducing all medical education not to a medium, but to a line which would insure a knowledge of medicine and surgery which would render a practitioner “not dangerous” to the community at large. Hence the examination was to be a minimum. Certain it is that for the great proportion of students who seek only to be qualified so that they may gain their bread, this minimum would be the maximum, and the teacher’s teaching would soon reach the same level.

The idea of perfect uniformity is absurd; no two students ever yet went up to an examination with exactly the same amount and kind of knowledge. The cry for uniformity is vain even were it desirable. But this scheme has been put off from time to time, especially with the prospects of a new Medical Act before us. And we question greatly whether, with a moribund Parliament, and a Committee left sitting at the end of last session, this is likely soon to be brought about. Nevertheless the draught scheme of the Committee appointed by those concerned in the formation of a Conjoint Examining Board, which was drawn up with great care, is sure to constitute the foundation of any new plan of education which may be devised for England. Like all such schemes drawn up by men of opposite views and tastes, it is more or less of a compromise, and hence unsatisfactory. Moreover, instead of boldly striking out a new line—practically impossible with such a Committee—it is framed entirely on existing lines. Its outlines may here be briefly sketched, and contrasted with the existing regulations. Thus, as matters now stand, the student must attend Botany and Chemistry in his school: the proposed regulations admit of this being done anywhere, provided he can pass the examinations. Only three months’ Practical Chemistry will be required to be certified from a

regular school. *Materia Medica* may be learned anywhere, but there will be special lectures on Therapeutics. Anatomy will have to be attended during one winter session only, but there will be a long course of dissecting-room work. Both as regards this and Physiology, put on a somewhat similar basis, the periods of compulsory attendance are obviously too short; for the kind of instruction which can be given during a single session on either of these subjects must be lamentably deficient either in breadth or depth. So too, again, it is proposed that there shall be but a single course of Surgery, and a similar one in Medicine, supplemented by certain practical courses in each. It is hard to tell what can be taught in these two courses of five or six months each. At the outside it cannot be more than the veriest principles of the art and science of Medicine; or if one portion is dealt with at full length, the other portions must be proportionally curtailed. On the other hand, there are to be special courses of clinical lectures; but, if these are to make up for the deficiencies of the systematic course, they must be more or less systematic—a thing scarcely intended by the great clinical masters. It is proposed to give instruction in Midwifery, the diseases of women and children, and the use of midwifery instruments all in three months. We should like to see a course of lectures framed on this model! Medical Jurisprudence is to be taught, but there is to be no special examination; which means, practically, none at all. Such is an outline of what the student has to expect. What he ought to expect is another story. Meanwhile we have by the new laws the Irish University throwing open her doors to all comers. The future of medical education seems to be as doubtful as may be.

THE STUDENT'S FIRST WINTER SESSION.

Let us suppose, then, that the young student comes to his medical studies with a good sound English education, and some little knowledge of Physics and Chemistry; his attention during the first winter will be mainly devoted to Chemistry, Anatomy, and Physiology. In Chemistry, he will find an enormous advantage in the little knowledge he brings with him. It would greatly assist teachers of Chemistry in fulfilling their duty to be able to address gentlemen whose knowledge extended to the most important facts relating to Inorganic Chemistry, for then the time of the medical student could be directed mainly to Organic Chemistry, the part which is to be of most use to him in after-life: whereas, as matters now stand, he rarely reaches those studies, and still more rarely masters them. We would very strongly, therefore, endeavour to impress on the minds of those about to become students of Medicine the importance of acquiring some knowledge of Chemistry, and still more of Botany, before entering a medical school. In most public schools nowadays both of these subjects are taught, and every effort ought to be made to encourage the practice. Be that, however, as it may, let the student work hard to master the science of Chemistry during this his first year, for each succeeding session brings its own work with it.

Turning next to Anatomy, the first thing to which a student directs his attention is the "bones," and these should be mastered as soon as possible. This is, as a rule, not very difficult; he will have plenty of aid from his fellow-students. A thorough knowledge of the bones is invaluable, and carries with it much knowledge of the soft parts. Each groove, ridge, foramen, and channel has its own story, and the knowledge of how each is occupied must be constantly exercised in after-life. The next step should be a thorough study of the joints and ligaments; but the method varies a good deal in different schools. In some—and perhaps this is the best plan—after the joints and ligaments, the student is sent at once to the study

of muscles, as to origin, insertion, course, shape, composition, and mode of action. These three subjects may be said to be the foundation of all surgical knowledge. In other schools, however, the student is at once turned into the dissecting-room to study all parts—muscles, nerves, vessels, fasciæ—as they are laid bare. This plan, too, has its excellencies; but on the whole, it is better, if there is material for the purpose, to acquire a knowledge of the bones, ligaments, and muscles before attempting the more difficult concrete Anatomy. But whatever plan be adopted, let the knowledge acquired be real—a knowledge not of the memory, but of the understanding; for at the basis of Surgery, and of much of Medicine also, lies a sound knowledge of Anatomy. This leads us to point out another thing the student should do early—that is, to acquire some knowledge of the relative positions of the different viscera, and their external indications. This is best acquired in the post-mortem-room, which from the first the student should frequent. What of dissecting? The student should take to it as early as possible. He should endeavour, it is true, to master everything laid bare, but if he only acquire a manual dexterity in his operations, that at least is something.

And now as regards Physiology. Here we are almost reduced to despair. The absurd existing regulations compel a man to enter on the study of the very highest branches of Chemistry, in the shape of Physiological Chemistry, on the same day on which he begins to study its rudiments; to study the minute structure of a part or organ with whose shape or outward appearance he is altogether unacquainted. We can only tell him to do his best, and to learn as much as he can by means of his eyes; he must trust more to his ears another session.

Finally, as regards Hospital Practice, the sooner the young student begins to study what is, after all, to be the great business of his life, the better; but it should be begun with reason. Students should not be let loose like an undisciplined crowd of star-gazers; there should be rule in everything. In some hospitals the preposterous system of introducing the raw student into the medical wards did at one time prevail, and Sir Astley Cooper used to congratulate his class on having left the study of Medicine for the higher walk of Surgery. The sooner the young man understands that time spent in the medical wards at this period of his career is wasted, the better for him. Let him instead go at once to the surgical out-patient room; here he can see something. He can learn what an ulcer is, and how to dress it; what to do for a bad wound or bruise; that in many cases it is necessary to use a knife. He will see how different kinds of bandages are put on, and the different dodges, if one may say so, necessary to bandage different parts properly. In short, it is here that the student can best spend his time, thence proceeding in due course to the surgery of the wards. On the other hand, we would anxiously warn the young student against the physician's out-patient department. Here he will do no good, and he may be much harmed by it. He sees a gentleman busy prescribing for a crowd of patients, and he sees them rapidly disposed of; but he does not see the years of study and hard work which have enabled the physician to make in a few minutes a trenchant diagnosis. Vast numbers of these patients suffer from the same kind of illness: they are subject to the same influences—close, ill-smelling houses in foul alleys; a want of light and air; improper or badly cooked food, partaken of at improper times; and, above all, the only solace they have for so much squalor and discomfort—that which ever tends to perpetuate this—too much beer and gin. But we are diverging from our subject. Let, however, the young student avoid such studies until he is better qualified to appreciate them, and let him stick to those things he can see for himself in the surgical section.

In due time comes the First Summer Session. This is commonly devoted to the study of Botany, *Materia Medica*, and

Practical Chemistry. About these we have a word to say, especially as regards the first. Botany and its uselessness is a favourite subject of declamation with some; but with these we can in nowise agree. Like other studies, it might well be excluded from the medical curriculum, but it certainly ought not to be excluded from the scheme of medical education. Botany is far best and easiest learnt at school; of all branches of natural science it is that which requires fewest appliances. Its material is everywhere; and, rightly taught and rightly learned, it is a source of unfailing delight. Hunting for plants is quite as exciting as hunting anything else. Let Botany be taught and studied, then, but let it be out of the curriculum; or, if in it—as needs must be sometimes—let the student acquire the principles here, and apply them for himself in the fields and lanes. *Materia Medica*, too, has come in for much abuse; but was it so when men went through an apprenticeship? Then they imbibed *Materia Medica*, as it were, insensibly; by constant handling they knew the colour, smell, taste, relative weight, and a hundred other things concerning drugs. But that system has passed away, and something must take its place if men are to live by their profession. Therapeutics, again, which some men would substitute, should be taught at a later period of the student's course of study. Fortunately, we are all agreed on the necessity for Practical Chemistry, but that should really take the shape of the analysis of vegetable and animal solids and fluids, not of simple solutions.

SECOND WINTER SESSION AND FIRST EXAMINATION.

With the Second Winter comes the near approach of the First Professional Examination. At the Royal College of Surgeons, whither nearly all students flock, the subjects are Anatomy and Physiology, not separately, but conjointly. This arrangement is unfortunate, for it leads the student to the study of Anatomy at the expense of Physiology, the idea having got abroad that it is the more important subject of the two. As a consequence, we believe we are right in saying that the majority of those plucked are so in Physiology. We mention this because it is in the second winter that a competent knowledge of Physiology is to be acquired, and the student should pay at least as much attention to it as to Anatomy. But there is another thing the student should also look after—that is, the art of passing an examination. It is not enough that a student should have a full knowledge of his subjects: that knowledge should be methodised, and so formulated as to be at hand when wanted. There is nothing does this so well as class examinations, which are now held almost everywhere; but the student should also accustom himself to note-taking and to writing answers to questions, such as those set at the College, and regularly published in our columns. This will give him that ease and accuracy of expression so essential for passing a good written examination. There should be no “shots” at answering questions, no beating about the bush; with an examiner everything should be straightforward, simple, and unmistakable. Finally—a little thing—when sitting down to an examination, read over your paper carefully, and see what question you can best answer; write down that answer first on one piece of paper; take the next one that suits you, and do likewise; and so on, gradually attacking the more difficult, until you finish. In this way you are left with plenty of time on your hands, whereas, did you hesitate and bungle over the first difficulty, you might be unable to finish the writing out of the answers to those questions with which you were best acquainted.

By the time the student has passed his First Examination he should be out of leading-strings, and able, with the advice of his teachers, to employ his time to good advantage. He has passed beyond the class we have meanwhile specially in view.

EDUCATIONAL VACCINATING STATIONS.

IN order to provide for the granting of those special certificates of proficiency in vaccination which are required to be part of the medical qualification for entering into contracts for the performance of Public Vaccination, or for acting as deputy to a contractor, the following arrangements are made:—

1. The Vaccinating Stations enumerated in the subjoined list are opened under certain specified conditions, for the purposes of teaching and examination.

2. The Public Vaccinators officiating at the stations are authorised to give the required certificates of proficiency in vaccination to persons whom they have sufficiently instructed therein; and

3. The Public Vaccinators whose names in the subjoined list are printed in italic letters are also authorised to give such certificates, after satisfactory examination, to persons whom they have not themselves instructed:—

LONDON.—Principal Station, Surrey Chapel, Blackfriars-road: *Dr. Robert Cory*, who attends on Tuesday and Thursday, at 1 p.m. North-west Stations—Marylebone General Dispensary, 77, Welbeck-street: Mr. William A. Sumner, on Tuesday, at 2 p.m.; Hall of the Working Men's Christian Association, Omega-place, Alpha-road: Mr. Wm. A. Sumner, on Wednesday, at 10 a.m. West Station—9, St. George's-road, Pimlico, S.W.: Mr. Edward Lowe Webb, on Thursday, at 10 a.m. East Station—Eastern Dispensary, Leman-street: Mr. Charles T. Blackman, on Wednesday, at 11 a.m. North Station—Tottenham-court Chapel, Tottenham-court-road: Mr. William Edwin Grindley Pearse, on Monday and Wednesday, at 1 p.m. South-west Station—2, Regent-place, Horseferry-road: Mr. Wm. Edwin Grindley Pearse, on Tuesday, at 2 p.m. Strand Station—14, Russell-street, Covent-garden: Mr. Robert William Dunn, on Thursday, at 11 a.m. St. Thomas's Hospital: *Dr. Robert Cory*, on Wednesday, at 11.30 a.m.

BIRMINGHAM.—At the School Room, 27, Old Meeting-street, Worcester-street, on Monday; the Assembly Rooms, 103, Constitution-hill, opposite Bond-street, on Tuesday; the Wesleyan Methodist Infant School Room, Icknield-street West, on Wednesday; and “The British Workman” Reading Rooms, Sherborne-street, near Grosvenor-street, on Thursday: *Dr. Edmund Robinson*, at all the above stations, at 11 o'clock on the days mentioned.

BRISTOL.—The Public Vaccination Station, Peter-street: *Dr. Henry A. P. Robertson*, on Wednesday, at 10 a.m.

EXETER.—Odd Fellows' Hall, Bamfylde-street: *Mr. Charles H. Roper*, on Thursday, at 3 p.m.

LEEDS.—Heed-street: *Mr. Frederick Holmes*, on Tuesday, at 2.30 p.m.

LIVERPOOL.—St. Mary's School-room, Edgehill, West Derby, *Mr. Roger Parker*, on Tuesday, at 2.30 p.m.

MANCHESTER.—72, Rochdale-road: *Mr. Ellis Southern Guest*, on Monday, at 2 p.m.

NEWCASTLE-UPON-TYNE.—The Central Vaccination Station, 21, Nun-street: *Mr. John Hawthorn*, on Wednesday, at 3 p.m.

SHEFFIELD.—The Public Vaccination Station, Townhead-street: *Mr. William Skinner*, on Tuesday, at 3 p.m.

EDINBURGH.—The Royal Dispensary: *Dr. William Husband*, on Wednesday and Saturday, at 12. The New Town Dispensary: *Dr. James O. Affleck*, on Wednesday and Saturday, at 1.

GLASGOW.—The Hall of the Faculty of Physicians and Surgeons: *Dr. Hugh Thomson*, on Monday, at 12. The Royal Infirmary: *Dr. Robert Dunlop Tannahill*, on Monday and Thursday, at 12. The Western Infirmary: *Dr. David Caldwell McVail*, on Monday, at 1 p.m.

Candidates for the Certificate by Examination are recommended to communicate some days beforehand with the Examiner at whose station they propose to attend.

DEGREES IN SCIENCE IN THE DEPARTMENT OF PUBLIC HEALTH.

UNIVERSITY OF CAMBRIDGE.

EXAMINATION IN STATE MEDICINE.

An examination in so much of State Medicine as is comprised in the functions of Officers of Health will be held in Cambridge, beginning on the first Tuesday in October, 1879.

Any person whose name is on the Medical Register of the United Kingdom may present himself for this examination provided he is twenty-four years of age. The examination will be in two parts.

Part I. will comprise:—Physics and Chemistry. The principles of Chemistry, and methods of analysis with especial reference to analyses of air and water. Application of the microscope. The laws of heat, and the principles of pneumatics, hydrostatics, and hydraulics, with especial reference to ventilation, water-supply, drainage, construction of dwellings, and sanitary engineering in general.

Part II. will comprise:—Laws of the realm relating to public health. Sanitary statistics. Origin, propagation, pathology, and prevention of epidemic and infectious diseases. Effects of overcrowding, vitiated air, impure water, and bad or insufficient food. Unhealthy occupations, and the diseases to which they give rise. Water-supply and drainage in reference to health. Nuisances injurious to health. Distribution of diseases within the United Kingdom, and effects of soil, season, and climate.

Candidates may present themselves for either part separately, or for both together, at their option; but the result of the examination in the case of any candidate will not be published until he has passed to the satisfaction of the examiners in both parts. Every candidate will be required to pay a fee of £4 4s. before admission to each part of the examination. Every candidate who has passed both parts of the examination to the satisfaction of the examiners will receive a certificate testifying to his competent knowledge of what is required for the duties of a Medical Officer of Health.

All applications for admission to this examination, or for information respecting it, should be addressed to Professor Liveing, Cambridge.

Candidates who desire to present themselves for examination in October next must send in their applications and transmit the fees on or before September 18.

UNIVERSITY OF LONDON.

EXAMINATION IN SUBJECTS RELATING TO PUBLIC HEALTH.

A special examination shall be held once in every year in subjects relating to Public Health, and shall commence on the second Monday in December.

No candidate shall be admitted to this examination unless he shall have passed the second examination for the degree of Bachelor of Medicine in this University at least one year previously; nor unless he shall have given notice of his intention to the Registrar at least two calendar months before the commencement of the examination.

Candidates shall be examined in the following subjects:—

1. Chemistry and Microscopy, as regards the examination of air, water, and food.

2. Meteorology as regards general knowledge of meteorological conditions, and the reading and correction of instruments.

3. Geology, as regards general knowledge of rocks, their conformation and chemical composition, and their relation to underground water, and to drainage and sources of water-supply.

4. Physics and Sanitary Apparatus. The laws of heat, mechanics, pneumatics, hydrostatics, and hydraulics, in relation (for sanitary purposes) to the construction of dwellings, and to the principles of warming, ventilation, drainage and water-supply, and to forms of apparatus for these and other sanitary uses. And the reading of plans, sections, scales, etc., in regard of sanitary constructions and appliances.

5. Vital Statistics, as regards the methods employed for determining the health of a community; birth-rate; death-rate; disease-rate; life-tables; duration and expectancy of life. Present amount of mortality at the various ages, and its causes in different classes and communities. Practical statistics of armies, navies, civil professions, asylums, hospitals, dispensaries, lying-in establishments, prisons, indoor and outdoor paupers, friendly societies, sick clubs, medical and surgical practice, towns.

6. Hygiene, including the causation and prevention of disease, in which branch of examination reference shall be had to such matters as the following:—

Parentage, as influencing the individual expectation of health; temperaments; morbid diatheses; congenital diseases and malformations; effects of close inter-breeding. Special liabilities of the health at particular periods of life; physical regimen of different ages. Earth and climate and changes of season in their bearing on the health of populations; dampness of soil; malaria. Conditions of healthy nourishment:

dietaries and dietetic habits; stimulants and narcotics in popular use; dietetic privation, excesses, and errors, as respectively causing disease; drinking-water, and the conditions which make water unfit for drinking; adulterations of food. Conditions of healthy lodgment: ventilation and warming, and the removal of refuse-matters, in their respective relations to health; filth as a cause of disease; sanitary regimen of towns and villages; "nuisances" (as defined by law) with regard to the sanitary bearing and the removal of each; trade-processes causing offensive effluvia; common lodging-houses and tenement houses. Conditions of healthy activity: work, over-work, rest, and recreation; occupations of different sorts in relation to the health of persons engaged in them—*e.g.*, factory work in general, occupations which produce irritative lung-disease, occupations which promote heart-disease, occupations which deal with poisons, etc. Hygiene of particular establishments and particular classes of population: factories and workplaces; schools; workhouses; asylums; hospitals; prisons. Disease as distributed in England: classifications of disease for various purposes of medical inquiry; excesses of particular diseases and injuries at particular places and at particular times. Particular diseases, as regards their intimate nature, causation, and preventability: *e.g.*, enteric fever, cholera, typhus, small-pox, scarlatina, diphtheria, erysipelas, pyæmia, tubercular diseases, rheumatism, ague, cretinism, ophthalmia, porridge, venereal diseases, scurvy, ergotism, leprosy, insanity. Processes of contagion in different diseases; incubation in each case; particular dangers of infection—at schools, workplaces, etc., and from laundries, dairies, etc. Disinfectants and establishments for disinfection. Quarantine. Hospitals for infectious disease. Conveyance of the sick. Vaccination: existing knowledge as to its protectiveness; revaccination; precautions which vaccination requires; arrangements for public vaccination in town and country; natural cow-pox. Prostitution as regards the public health. Diseases of domestic animals in relation to the health of man: rabies; farcy and glanders; anthrax; parasites, especially trichina and the teniæ; aphtha; tubercle; meat and milk of diseased animals. Diseases of the vegetable kingdom, and failures of vegetable crops, in relation to the health of man; famine-diseases. Poisons in manufacture and commercial and domestic use—*e.g.*, arsenic, lead, phosphorus, mercury; poisonous pigments.

7. Sanitary Law, as regards the leading purposes of the following statutes, and the constitution and modes of procedure of the respective authorities, and any existing orders, regulations, or model by-laws of the Local Government Board in sanitary matters. The Public Health Act, 1875. The Vaccination Acts. The Rivers' Pollution Prevention Act, 1876. The Sale of Food and Drugs Act, 1875. The Artisans and Labourers' Dwellings Improvement Act, 1875. The Acts regulating the medical profession. The Acts regulating the practice of pharmacy. The Acts relating to factories and workplaces. The Acts relating to the detention and care of lunatics.

UNIVERSITY OF DURHAM.

STATE MEDICINE.

For the certificate of proficiency in Sanitary Science:—

1. That the candidate shall be a registered medical practitioner. 2. That the candidate shall have attended one course of lectures on Public Health at the University of Durham College of Medicine, Newcastle-upon-Tyne, extended over one winter session. 3. That the candidate shall be required to pass an examination on the following subjects:—

1. Physics.—Laws of light, heat, hydro-dynamics, and pneumatics.

2. Chemistry.—As applied to the detection of noxious gases and atmospheric impurities; analysis of air and water.

3. Sanitary Legislation.—Knowledge of the Acts of Parliament in force for the preservation and protection of health.

4. Vital Statistics.—Rates of births, deaths, and marriages. The methods of calculation, classification, and tabulation of returns of sickness and mortality; data and conclusions deducible therefrom.

5. Meteorology, Climatology, and Geographical Distribution of Diseases in the United Kingdom.

6. Sanitary Medicine, more especially epidemic, endemic, epizootic, and communicable diseases. Diseases attributable to heat, cold, or damp; insufficiency or impurity of air, food, or drink; habitation, occupation, over-exertion, intemperance, heredity. Preventive measures—vaccination, isolation, disinfection; the regulation of noxious and offensive manufactures and trades; the removal of nuisances.

7. Practical Hygiene, in reference to site, materials, construction, lighting, ventilation, warmth, dryness, water-supply, and refuse disposal of dwellings, schools, hospitals, and other buildings of public and private resort; action with respect to nuisances and outbreaks of disease. Other duties of a Medical Officer of Health.

UNIVERSITY OF EDINBURGH.

In consequence of the great demand which now exists for Medical Officers of Health, and the importance to the public of some means of ascertaining that members of the medical profession have specially studied the subject of Public Health,

Science Degrees in the Department of Public Health have been instituted by the University of Edinburgh under the following conditions:—

1. Candidates for graduation in Science in the Department of Public Health must be graduates in Medicine of a British University, or of such foreign or colonial Universities as may be specially recognised by the University Court.

2. He must be matriculated for the year in which he appears for examination or graduation.

3. Candidates who have not passed an *annus medicus* in the University of Edinburgh must, before presenting themselves for examination, have attended as matriculated students in the University at least two courses of instruction, scientific or professional, bearing on the subjects of the examinations.

4. There are two examinations for the degree of Bachelor of Science in the Department of Public Health. Candidates who have passed the first examination may proceed to the second, immediately or at any subsequent Medical or Science examination.

5. Candidates must produce evidence that, either during their medical studies or subsequently, they have attended a course of lectures in which instruction was given on Public Health, and that they have studied Analytical Chemistry practically for three months with a recognised teacher.

6. The examinations are written, oral, and practical, and are conducted by University examiners selected by the University Court.

7. The subjects of the examinations for the degree of Bachelor of Science in the Department of Public Health are as follows:—

FIRST EXAMINATION.

1. *Chemistry*.—Analysis of air, detection of gaseous emanations and other impurities in the atmosphere; analysis of waters for domestic use, and determination of the nature and amount of their mineral and organic constituents; detection, chemical and microscopical, of adulterations in articles of food and drink, and in drugs: practical examination, including at least two analytical researches.

2. *Physics*.—Hydraulics and hydrostatics, in reference to water-supply, drainage, and sewerage; pneumatics, in reference to warming and ventilation; meteorology, and methods of making meteorological observations; mensuration and mechanical drawing in reference to the plans and sections of public and private buildings, mines, waterworks, and sewers. The candidate will be expected to make figured sketches from models.

3. *Sanitary Law*.—Knowledge of the leading sanitary Acts of Parliament.

4. *Vital Statistics*.—Knowledge of statistical methods and data in reference to population, births, marriages, and deaths.

Examination.—First day: Chemistry and Physics. Second day: Sanitary Law and Vital Statistics.

An oral examination and an examination in practical chemistry in the laboratory will take place a few days after the written examination.

SECOND EXAMINATION.

1. *Medicine*.—Origin, nature, and propagation of epidemic and contagious diseases; prevention of contagion and infection; endemic diseases and the geographical distribution of disease; insalubrious trades; overcrowding; epizootics, including pathological changes.

2. *Practical Sanitation*.—Duties of a Health Officer in reference to water-supply; insalubrious dwellings and public buildings; removal and disposal of sewage and other refuse and impurities; cemeteries; nuisances from manufactories, etc.; bad or insufficient supplies of food; outbreaks of zymotic diseases; quarantine; disinfectants and deodorisers; construction of permanent and temporary hospitals.

The written examinations will take place on October 16 and 17, 1879, and April 1 and 2, 1880. Candidates who intend to present themselves for examination in October are required to lodge with the Secretary of the Senatus proof of their being eligible, and to pay the fee on or before October 1; and for the examination in April, on or before March 1.

DOCTOR OF SCIENCE.

A Bachelor of Science in the Department of Public Health may, after the lapse of one year, proceed to the degree of Doctor in the same department on producing evidence that he has been engaged in practical sanitation since he received the degree of Bachelor of Science, and on presenting a thesis on some subject embraced in the Department

of Public Health. Every such thesis must be certified by the candidate to have been composed by himself, and must be approved of by the examiners.

The candidate for the degree of D.Sc. must lodge his thesis with the Dean of the Medical Faculty on or before January 31 in the year in which he proposes to graduate. No thesis will be approved which does not contain either the results of original observations on some subject embraced in the examination for B.Sc., or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted, so that due verification may be facilitated.

The fees for the degrees in Science in the Department of Public Health shall be—For the First B.Sc. in Public Health examination, £5 5s.; for the Second B.Sc. in Public Health examination, £5 5s.; for the degree of D.Sc. in Public Health £5 5s.

The following are recommended as books to be studied in preparation for the above examinations:—E. Parkes' "Practical Hygiene"; George Wilson's "Handbook of Hygiene"; Edwd. Smith's "Manual for Public Officers of Health" and "Handbook for Inspectors of Nuisances"; Michael, Corfield, and Wanklyn's "Manual of Public Health," edited by E. Hart; Eassie's "Healthy Houses"; Baldwin Latham's "Sanitary Engineering"; Fleeming Jenkin's "Healthy Houses"; Henry Law's "Rudiments of Civil Engineering"; George Monro's "The Public Health (Scotland) Act"; Alexander Buchan's "Introductory Text-book of Meteorology."

UNIVERSITY OF GLASGOW.

THE QUALIFICATION IN PUBLIC HEALTH.

A special examination will be held once in every year in subjects relating to Public Health, and will commence on the second Tuesday in April. The examination will consist of two divisions, viz.:—First Division, embracing Physics, Chemistry, Meteorology, Geographical Distribution of Diseases. Second Division, embracing State Medicine, Sanitary Law, Vital Statistics. Fee for each division of the examination, £4 4s.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

GENERAL REGULATIONS.

Candidates shall be already on the Medical Register, and be entered there as possessing a qualification in Medicine. Candidates shall not, in the meantime, be required to attend any special courses of instruction; but their attention is directed particularly to courses of lectures on State Medicine, and to the practice of Analytical Chemistry. Candidates shall be subjected to two examinations. Such examinations may be taken simultaneously, or with an interval not exceeding twelve months. The examinations shall be written, oral, and practical. The examinations shall be held in the Physicians' Hall, or elsewhere if found more convenient. Rejected candidates shall not be admitted for re-examination till after the expiry of six months. Fees will not be returned, except in the case mentioned in the paragraph relating to fees given below.

EXAMINATIONS.

I. The First Examination shall embrace—1. Physics: Especially pneumatics, hydrostatics, hydraulics, and engineering in relation to sanitary operations, including a knowledge of architectural and other plans, sections, etc. 2. Chemistry: Especially analysis of air, water, food, including the biology of putrefaction and allied processes. 3. Meteorology: Including climate, topographical and seasonal influences in relation to health and disease.

II. The Second Examination shall embrace—1. Epidemiology and Endemiology: Including the corresponding departments in the diseases of animals and plants; contagious diseases; diseases of periods of life, professions, trades, seasons, and climates. 2. Practical Hygiene: Duties of a health officer; food; water-supply; sewerage and drainage; construction of hospitals, public buildings, dwellings; manufactories; cemeteries; nuisances. 3. Sanitary Law and Vital Statistics.

Meetings for both examinations shall be held annually in April and October. The first examination shall be held on the second Tuesday of the month, and shall occupy two days; the second examination on the immediately succeeding Thursday of the same week, and shall occupy two days. Candidates

may enter for both examinations in the same week, or for one only. The examinations must be passed in their order, first and second. Candidates must appear for the second examination not later than twelve months after having passed the first. A candidate remitted at his second examination will be allowed to come up again after a further period of six months; but if he then fail to pass, he will be required again to undergo the first as well as the second examination before obtaining the certificate.

FEES.

No one shall be recognised as a candidate till he has paid the fee for the first examination. The fees for examinations must be paid at least a week before the day of examination. The whole charges by the College for the certificate amount to £10 10s. The fee for the first examination is £3 3s.; the fee for the second examination is £3 3s.; the fee payable before receiving the certificate is £4 4s. Candidates forfeit the fee for the examination which they have been unsuccessful in passing. If a candidate who has offered himself for both examinations fail to pass the first, he shall not be allowed to present himself for the second, and his fee for the second shall be returned to him.

DENTAL SURGERY.

REGULATIONS RELATING TO THE DIPLOMA
IN DENTAL SURGERY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

EDUCATION.

CANDIDATES are required to produce the following certificates:—

1. Of being twenty-one years of age.
2. Of having been engaged during four years in the acquirement of professional knowledge.
3. Of having attended, at a school or schools recognised by this College, not less than one of each of the following courses of lectures, delivered by lecturers recognised by this College, namely:—Anatomy, Physiology, Surgery, Medicine, Chemistry, and Materia Medica.
4. Of having attended a second winter course of lectures on Anatomy, or a course of not less than twenty lectures on the Anatomy of the Head and Neck, delivered by lecturers recognised by this College.
5. Of having performed dissections at a recognised school during not less than nine months.
6. Of having completed a course of chemical manipulation, under the superintendence of a teacher or lecturer recognised by this College.
7. Of having attended, at a recognised hospital or hospitals in the United Kingdom, the practice of Surgery and clinical lectures on Surgery during two winter sessions.
8. Of having attended, at a recognised school, two courses of lectures upon each of the following subjects, viz.:—Dental Anatomy and Physiology (human and comparative), Dental Surgery, Dental Mechanics, and one course of lectures on Metallurgy, by lecturers recognised by this College.
9. Of having been engaged, during a period of not less than three years, in acquiring a practical familiarity with the details of Mechanical Dentistry, under the instruction of a competent practitioner.
10. Of having attended at a recognised dental hospital, or in the dental department of a recognised general hospital, the practice of Dental Surgery during the period of two years.

N.B.—The students of the London schools are required to register the above certificates at this College; and special returns will be required from the provincial schools.

[Note.—All candidates who shall commence their professional education on or after October 1, 1877, will, in addition to the certificates enumerated in the foregoing clauses, be required to produce a certificate of having, prior to such commencement, passed the preliminary examination in general knowledge for the diploma of Member of the College, or an examination recognised as equivalent to that examination.]

Candidates who were in practice as dentists, or who had commenced their education as dentists prior to September, 1859—the date of the Charter—and who are unable to produce the certificates required by the foregoing regulations, shall

furnish the Board of Examiners with a certificate of moral and professional character, signed by two members of this College, together with answers to the following inquiries:—Name, age, and professional address. If in practice as a dentist, the date of the commencement thereof. Whether member or licentiate of any College of Physicians or Surgeons of the United Kingdom; and, if so, of what College. Whether graduate of any University in the United Kingdom; and, if so, of what University; and whether graduate in Arts or Medicine. The date or dates of any such diploma, licence, or degree. Whether member of any learned or scientific society; and, if so, of what. Whether his practice as a dentist is carried on in connexion with any other business; and, if so, with what business. Whether since September, 1859, he has employed advertisements or public notices of any kind in connexion with the practice of his profession. The particulars of professional education, medical or special. The Board of Examiners will determine whether the evidence of character and education produced by a candidate be such as to entitle him to examination.

N.B.—In the case of candidates in practice or educated in Scotland or Ireland, the certificate of moral and professional character may be signed by two Licentiates of the Royal College of Surgeons of Edinburgh, or of the Faculty of Physicians and Surgeons of Glasgow, or of the Royal College of Surgeons in Ireland, as the case may be.

EXAMINATION.

The examination is partly written and partly oral. The written examination comprises general Anatomy and Physiology, and general Pathology and Surgery, with especial reference to the practice of the dental profession. The oral practical examination comprises the several subjects included in the curriculum of professional education, and is conducted by the use of preparations, casts, drawings, etc. Members of the College, in the written examination, will only have to answer those questions set by the section of the Board consisting of persons skilled in Dental Surgery; and in the oral examination will be examined only by that section. A candidate whose qualifications shall be found insufficient will be referred back to his studies, and will not be admitted to re-examination within the period of six months, unless the Board shall otherwise determine. Examinations will be held in January and June. The fee for the diploma is £10 10s., over and above any stamp duty.

[Note.—A ticket of admission to the museum, to the library, and to the College lectures will be presented to each candidate on his obtaining the diploma.]

DENTAL HOSPITAL OF LONDON MEDICAL
SCHOOL.

HOSPITAL STAFF.

Consulting Physician—Sir Thomas Watson, Bart, M.D.

Consulting Surgeon—Mr. Christopher Heath.

Consulting Dental Surgeons—Mr. S. Cartwright and Mr. John Tomes.

Dental Surgeons.

Mr. Fox.
Mr. Medwin.
Mr. Gregson.
Mr. Coleman.
Mr. Moon.
Mr. A. Hill.

Assistant Dental Surgeons.

Mr. F. Canton.
Mr. A. Gibbings.
Mr. D. Hepburn.
Mr. R. Woodhouse.
Mr. Bartlett.
Mr. S. J. Hutchinson.

Chloroformists—Mr. Clover, Mr. Braine, and Mr. Bailey.

Medical Tutor—Mr. Storer Bennett. | Demonstrator—Mr. Claude Rogers-House-Surgeon—Mr. John McCall.

Assistant House-Surgeon—Mr. J. B. Magor.

The winter session will commence on Wednesday, October 1.

LECTURES.—WINTER SESSION.

Mechanical Dentistry—Mr. J. S. Turner.

Metallurgy in its Application to Dental Purposes—Mr. G. H. Makins.

LECTURES.—SUMMER SESSION.

Dental Surgery and Pathology—Mr. Alfred Coleman.

Dental Anatomy and Physiology (Human and Comparative)—Mr. C. S. Tomes.

SCHOLARSHIPS AND PRIZES.

The Saunders Scholarship of £20 per annum and prizes are open for competition.

FEES.

Fee for two years' hospital practice required by the curriculum, £15 15s. Fees for lectures and practice, £31 10s. Additional fees for a general hospital for the two years to fulfil the requirements of the curriculum vary from £40 to £50.

For further particulars, apply to Mr. T. F. Ken Underwood, Dean.

NATIONAL DENTAL HOSPITAL AND COLLEGE.

The winter session will commence on October 1.

HOSPITAL STAFF.

Dental Surgeons.	Assistant Dental Surgeons.
Mr. Oakley Coles.	Mr. F. Henri Weiss.
Mr. G. Williams.	Mr. C. J. Noble.
Mr. A. F. Canton.	Mr. G. A. Williams.
Mr. H. T. K. Kempton.	Mr. W. Taylor Smith.
Mr. Harry Rose.	Mr. Thomas Gaddes.

LECTURERS.

Dental Anatomy and Physiology— Mr. Thomas Gaddes.	Dental Surgery and Pathology—Mr. Oakley Coles.
Dental Mechanics—Mr. G. Williams.	Dental Metallurgy—Mr. A. Tribe.

SUPPLEMENTAL LECTURERS.

Elements of Histology—Mr. Thomas Gaddes.	Demonstrator of Dental Mechanics —Mr. Harry Rose.
Deformities of the Mouth—Mr. Oakley Coles.	Demonstrator of Operative Dentis- try—Dr. Thompson.

Arts and Literature—Rev. H. R. Belcher, M.A.

FEE.

The fee for hospital practice and lectures required by the curriculum is £25 4s.

Special arrangements for the education of dental students are made at Charing-cross and Middlesex Hospitals.

PHARMACEUTICAL CHEMISTRY.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN. SCHOOL OF PHARMACY.

THE session will commence on October 1, 1879, and extend to July 31, 1880.

Lectures on Chemistry and Pharmacy will be delivered by Professor Redwood on Monday, Tuesday, and Wednesday mornings at nine o'clock, commencing on Monday, October 6. The course consists of sixty lectures, comprising an exposition of the leading principles and doctrines of the science of Chemistry, and of those branches of allied physical science, the applications of which are involved in the highest qualifications required for the practice of Pharmacy. There will be two of these courses during the session—the course which commences in October and ends in February being repeated in the following five months. Each course will be complete in itself, and will include a description of all the most important chemical and Galenical preparations used in medicine, which will be fully illustrated with experiments, diagrams, and specimens.

Lectures on Botany and Materia Medica by Professor Bentley, on Thursday, Friday, and Saturday mornings at nine o'clock, commencing Friday, October 3. During the session two courses of lectures will be delivered, each consisting of sixty lectures. The first course, extending from October to the end of February, will comprise Botany and Materia Medica, with especial reference to Structural Botany, and the use of the microscope in distinguishing the various drugs; and the second course, which commences in March and extends to the end of July, will also comprise Botany and Materia Medica, with especial reference to Systematic and Practical Botany. Each course will be complete in itself, although each will have a definite object in view. The portion of the second course on Systematic and Practical Botany, consisting of twenty lectures, commences in May and ends in July. Separate entries may be made for this portion.

The Laboratories for the study of Practical Chemistry will be opened on Wednesday, October 1, at 10 a.m., under the direction of Professor Atfield. The Laboratories are fitted up with every convenience for the study of the principles of Chemistry by personal experiment. They are specially designed for the study of Pharmacy, but are also well adapted for the acquirement of a knowledge of Chemistry in its application to manufactures, analysis, and original research. There is no general class for simultaneous instruction, each student following an independent course of study always determined by his previous knowledge; pupils can therefore enter for any period at any date, working for portions only of the days or weeks, if convenient. A complete course of instruction, including the higher branches of Quantitative Analysis, occupies ten full months, and dates from the day of entry to that day twelvemonth. The Laboratories are open from ten o'clock in the morning until five in the afternoon

daily, except on Saturdays, when they are closed at two o'clock. Vacation months, August and September.

Prospectuses and further particulars may be had of the Professors or their assistants, 17, Bloomsbury-square, W.C.

SPECIAL INSTRUCTION.

SCHOOLS AND OTHER PLACES OF GENERAL AND SPECIAL INSTRUCTION.

BESIDES the regular Schools with their various departments, there are many other institutions—devoted, some of them, to special purposes—where students and practitioners may acquire a sound knowledge of various subjects which hardly enter into the ordinary curriculum. We have already indicated that in the plan of studies the student may avail himself of a year at the beginning or at the end for such purposes. If at the beginning, we could not do better than advise him to take a session at the Royal School of Mines, studying especially Chemistry and Natural History, the value of which we have already inculcated. If he takes the year at the end, then such special studies as Eye Diseases, Skin Diseases, Lunacy, Diseases of Women and Children, may well engage his attention. These may, as a rule, be studied in connexion with his school; or, if a wider field is desired, in some one or other of the following institutions:—

Preliminary.

ROYAL SCHOOL OF MINES.

Department of Science and Art.

During the twenty-ninth session, 1879-80, which will commence on October 1, the following courses of lectures and practical demonstrations will be given:—

Applied Mechanics—Mr. Goodeve.	Mineralogy and Mining—Mr. War- ington W. Smyth.
Chemistry—Dr. E. Frankland.	Natural History—Professor T. H. Huxley.
Geology—Mr. John W. Judd.	Physics—Dr. Frederick Guthrie.
Metallurgy—Dr. John Percy.	
Mechanical Drawing—Rev. J. Edgar.	

The lecture fees for students desirous of becoming Associates are £30 in one sum, on entrance, or two annual payments of £20, exclusive of the laboratories. Tickets to separate courses of lectures are issued at £3 and £4 each. Officers in the Queen's service, her Majesty's Consuls, Acting Mining Agents and Managers, may obtain tickets at reduced prices. Science teachers are also admitted to the lectures at reduced fees. For a prospectus and information apply to the Registrar, Royal School of Mines, Jermyn-street, London, S.W.

SOUTH LONDON SCHOOL OF CHEMISTRY AND PHARMACY,(a)

325, Kennington-road, and Central Public Laboratory
Kennington-cross, S.E.—Director—Dr. Muter.

Daily lectures in Classics, Chemistry, Physics, Botany, Materia Medica, and Pharmacy. Laboratory open for Practical Chemistry from ten till five. Special instruction for Medical Officers of Health in Water, Air, Gas, and Food Analysis. For fees, etc., apply to W. Baxter, Secretary, Laboratory, Kennington-cross, S.E.

LONDON SCHOOL OF MEDICINE FOR WOMEN,

30, Henrietta-street, Brunswick-square, W.C.

LECTURERS.

Anatomy—Mr. Reeves, London Hospital, and Mr. Ottley, Uni- versity College.	Clinical Medicine—Dr. O'Connor, Royal Free Hospital, and Dr. Cockle, Royal Free Hospital.
Physiology—Mr. Schäfer, F.R.S., University College.	Surgery—Mr. Cowell, Westminster Hospital.
Chemistry—Mr. Heaton, Charing- cross Hospital.	Clinical Surgery—Mr. F. J. Gant, Royal Free Hospital, and Mr. W. Rose, Royal Free Hospital.
Botany—Dr. P. H. Stokoe.	Ophthalmic Surgery—Mr. Critchett, Middlesex Hospital, and Mr. Jas. Adams, Royal Ophthalmic Hos- pital.
Materia Medica— Practice of Medicine—Dr. H. Don- kin, Westminster Hospital, and Mrs. Garrett-Anderson, M.D.	Minor Surgery—Mr. W. Harrison Cripps, Royal Free Hospital.
Midwifery and Diseases of Women —Dr. Ford Anderson and Dr. Louisa Atkins.	Pathology—Dr. Allen Sturge, Royal Free Hospital.
Forensic Medicine—Dr. Dupré, Westminster Hospital, and Mr. T. Bond, Westminster Hospital.	Mental Pathology—Dr. Sankey, University College.
Hygiene—Drs. Sophia Jex Blake and Edith Pechey.	Comparative Anatomy—Dr. Murie, Middlesex Hospital.

Dean of the School—Mr. A. T. Norton, St. Mary's Hospital.

The Winter Session of 1879-80 will commence on October 1, and will comprise classes in Anatomy, Physiology, Practice of Medicine, and Prac- tical Anatomy with Demonstrations. Clinical instruction will be given at the Royal Free Hospital, and will include lectures on Clinical Medi- cine, Clinical Surgery, and Hospital attendance. Dressers, Clinical Clerks, and a Pathological Registrar will be selected from among the senior students.

Fees for ordinary curriculum of non-clinical lectures £30, or £40 the first year, £30 the second, and £15 the third. Fees for clinical instruction and lectures for four years £45, or £20 the first year, £15 the second year, and £15 the third, the fourth being free. Apply for information to the Dean, or to the Hon. Sec., Mrs. Thorne.

(a) No return.

THE HARTLEY INSTITUTION, SOUTHAMPTON.

In the department of preliminary medical education, which is recognised by the Royal College of Surgeons and Physicians, students are prepared for the regular curriculum of the medical schools, one winter and two summer sessions thus passed counting towards the four years' professional study required of all candidates for a diploma. Students in this department also receive instruction in dressing, taking notes of cases, etc., at the Southampton Royal Infirmary. For further information address the Principal.

DOWNING COLLEGE, CAMBRIDGE.

Every alternate year an election to a Fellowship takes place, the holder of which must be engaged in the active pursuit of the studies of Law or Medicine. These Fellowships are of the annual value of £200, and are tenable for twelve years. They are not vacated by marriage, and the Fellows are not required to reside. Foundation Scholarships of £50 per annum (in some cases with rooms and commons) are offered annually for distinction in Natural Science, tenable until the B.A. degree, and in cases of special merit for three years longer. Minor Scholarships of £60 and upwards per annum, tenable for two years, are offered each year for competition before entrance, and one or more of these is awarded for proficiency in Natural Science.

UNIVERSITY OF DURHAM COLLEGE OF PHYSICAL SCIENCE, NEWCASTLE-ON-TYNE.

The College was founded in the year 1871, mainly through the instrumentality of the North of England Institute of Mining and Mechanical Engineers, incorporated by Royal Charter, then under the presidency of Mr. E. F. Boyd, and the exertions of the Dean of Durham and the authorities of that University.

The objects of the College are the teaching of Physical Science, particularly in its practical application to Engineering, Mining, Manufactures, and Agriculture, and to furnish the advantages of an advanced scientific education generally.

Chairs have been established in the following branches of Science :— (1) Pure and Applied Mathematics, (2) Chemistry, (3) Experimental Physics, (4) Geology, (5) Natural History; and additional classes have also been established in French, German, Mechanical Drawing, and Geological Surveying.

The number of day students for 1871-72 was 76; for 1872-73, 91; 1873-74, 101; 1874-75, 93; 1875-76, 79; 1876-77, 81; 1877-78, 99; 1878-79, 99.

The course of study extends over two years, and consists partly of attendance at lectures, and partly of work in the Laboratory. On completing a suitable course of study and passing the required examinations, students will receive the title of Associate in Physical Science of the University of Durham, and on certain further conditions the degree of B.A.

The University of Durham makes an annual grant of £1000, besides some additional payments to extra teachers in languages, and towards the support of the chair in Natural History.

The amount of donations promised when the College was projected was upwards of £23,000, the payments extending over a term of six years, nearly the whole of which has been received.

Irrespective of these sums, the Duke of Northumberland, the Corporation of Newcastle, and the Ecclesiastical Commissioners, each contribute £100 annually, and there are also some smaller yearly subscriptions.

The College does not yet possess a building of its own, but rents a portion of the premises originally designed for the Mining Institute and Coal Trade Association, and the students of the College are allowed the use of the Wood Memorial Hall and the Library therein.

LONDON.

General Hospitals.

GREAT NORTHERN HOSPITAL, Caledonian-road.

Physicians—Dr. Leared, Dr. Cholmeley, Dr. Crucknell, Dr. R. Bridges, Dr. Cook.

Obstetric Physician—Dr. Gustavus C. P. Murray.

Diseases of the Eye—Mr. W. H. Lyell.

Surgeons—Mr. Gay, Mr. W. Adams, Mr. W. H. Cripps, W. Spencer Watson.

Aural Surgeon—Mr. A. E. Cumberbatch.

Dental Surgeon—Mr. C. J. Fox.

Chloroformist—Mr. G. Eastes. House-Surgeon—Mr. T. H. Gillam.

Junior Resident Medical Officer—

Dispenser—Mr. J. W. Burgess.

Registrar of Out-Patients—Mr. F. Adams.

SEAMEN'S HOSPITAL (late *Dreadnought*), GREENWICH, S.E.

Consulting Physicians—Drs. George Budd and Stephen H. Ward.

Visiting Physicians—Dr. C. H. Ralfe, F.R.C.P., Mr. H. Leach, M.R.C.P.L.

Visiting Surgeon—Mr. N. Davies-Colley.

Surgeon—Mr. W. J. Smith.

Secretary—Mr. Henry C. Burdett.

Special Hospitals.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park.

Office—24, Finsbury-circus, E.C.

Honorary Consulting Physician—Dr. J. Risdon Bennett.

Consulting Physicians—Dr. T. B. Peacock, Dr. E. L. Birkett, and Dr. J. Andrew.

Consulting Surgeon—Mr. John Eric Erichsen.

Physicians—Dr. S. H. Ward, Dr. J. C. Thorowgood, Dr. A. B. Shepherd, Dr. Eustace Smith.

Assistant-Physicians—Dr. J. B. Berkart, Dr. J. M. Fothergill, Dr. Samuel West, Dr. G. A. Heron, Dr. V. D. Harris, and Dr. J. A. Ormerod.

Resident Medical Officer—Dr. Hotham G. Orlebar.

The Hospital affords accommodation for 164 in-patients. Information respecting medical instruction at the Hospital may be obtained on application to the Physicians.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON. (Number of beds, 192.)

Consulting Physicians—Dr. C. J. B. Williams, Dr. W. H. Walshe, and Dr. Richard Quain.

Consulting Surgeon—Prof. John Marshall.

Physicians—Dr. Jas. E. Pollock, Dr. E. Symes Thompson, Dr. C. Theodore Williams, Dr. R. Douglas Powell, and Dr. John Tatham.

Assistant-Physicians—Dr. Reginald E. Thompson, Dr. I. Burney Yeo, Dr. Fredk. T. Roberts, Dr. T. H. Green, and Dr. J. Mitchell Bruce.

Dental Surgeon—Mr. W. Penny Bartlett.

Resident Medical Officer—Dr. W. T. Law.

Honorary Secretary—Sir Philip Rose, Bart.

Secretary—Henry Dobbin.

The clinical practice of this Hospital is open to students of Medicine and practitioners. Fee for three months, £3 3s.; six months, £5 5s.; perpetual, £10 10s.

A course of clinical instruction in Auscultation will be given by the medical officers.

Certificates of attendance on the medical practice of this Hospital are recognised by the University of London, the Apothecaries' Society, and by the Army, Navy, and Indian Boards.

THE HOSPITAL FOR SICK CHILDREN,

48 and 49, Great Ormond-street, W.C., and Cromwell House, Highgate.

Physicians—Dr. Dickinson, Dr. Gee, and Dr. W. B. Cheadle. Assistant-Physicians—Dr. R. J. Lee, Dr. O. Sturges, Dr. Thomas Barlow, Dr. D. B. Lees, Dr. Bridges.

Surgeon—Mr. Thomas Smith.

Assistant-Surgeons—Mr. Howard Marsh, Mr. Edmund Owen, and Mr. J. H. Morgan.

Surgeon-Dentist—Mr. Alex. Carwright.

Secretary—Samuel Whitford.

120 beds. In-patients, 1878, 1058. Out-patients attending, 11,441. The practice of the Hospital, in both in- and out-patient departments, is open at nine every morning.

BELGRAVE HOSPITAL FOR CHILDREN. (a)

1, Cumberland-street, and 72, Winchester-street, Eccleston-square, S.W. Twenty beds.

President—His Grace the Duke of Westminster.

HONORARY MEDICAL STAFF.

Physicians—Dr. Farquharson and Dr. Hope.

Surgeons—Mr. Thos. P. Pick and Mr. Stirling.

House-Surgeon—Mr. Drewitt.

Pupils will be admitted to the practice of the Hospital upon producing a certificate of being duly registered as medical students, and on such other conditions as the Committee may from time to time direct.

EVELINA HOSPITAL FOR SICK CHILDREN,

Southwark-bridge-road.

Founded in 1869 by the Baron F. de Rothschild.—100 beds.

Consulting Physician—Dr. W. S. Playfair.

Consulting Surgeon—Mr. Prescott C. Hewett.

Physicians—Dr. E. Buchanan, Dr. Baxter and Dr. Fredk. Taylor.

Physicians to Out-Patients—Dr. T. Crawford Hayes and Dr. Jas. Goodhart.

Surgeons—Mr. W. Morant Baker and Mr. H. G. Howse.

Surgeon to Out-Patients—Mr. R. Clement Lucas.

House-Surgeon—Mr. Henry Davy.

Secretary—Mr. Frank Livesay.

VICTORIA HOSPITAL FOR CHILDREN.

Queen's-road, Chelsea; and Churchfields, Margate.

Patroness—H.R.H. Princess Louise.

This Hospital contains seventy-five beds—viz., sixty-three at the Hospital and twelve at Margate,—and has a large Out-patient Department of over 400 weekly. The Physicians attend daily at 9 a.m., and on Mondays and Thursdays at noon. The Surgeons attend at 10 a.m., except on Mondays and Thursdays. The Surgeon-Dentist attends on Saturday at 9.30 a.m.

Physicians—Dr. Julian Evans and Dr. T. Ridge Jones.

Physicians to Out-Patients—Dr. Grigg, Dr. Pearson Irvine, Dr. W. H. Aitchin.

Assistant-Physician—Dr. A. Venn.

Surgeon—Mr. George Cowell.

Surgeon to Out-Patients—Mr. F. Churchill.

Assistant-Surgeon—Mr. Walter Pyc.

Dental-Surgeon—Mr. Risdon.

Registrar—Mr. T. Lloyd Brown.

House-Surgeon—Mr. Alfred J. Bi-dee.

Secretary—Captain Blount, R.N.

EAST LONDON HOSPITAL FOR CHILDREN.

This institution contains ninety beds.

Consulting Physicians—Dr. Barnes and Dr. Andrew Clark.

Physicians—Dr. Eustace Smith and Dr. Horatio B. Donkin.

Assistant-Physicians—Dr. Warner and Dr. Crocker.

Administrator of Anæsthetics—Mr. Thomas Bird.

Secretary—Ashton Warner.

BRITISH LYING-IN HOSPITAL,

Endell-street, St. Giles's, W.C.

Consulting Physician—Dr. Priestley.

Consulting Surgeon—T. Spencer Wells, F.R.C.S.

Physicians—Dr. Heywood Smith, Dr. Arthur Edis, and Dr. Fancourt Barnes.

Matron—Miss Freeman.

Secretary—FitzRoy Gardner, Esq.

ROYAL INFIRMARY FOR CHILDREN AND WOMEN.

Waterloo-bridge-road.—Instituted 1816.

Consulting Physicians—Dr. Samuel Wilks and Dr. John Williams.

Consulting Surgeon—Mr. J. Cooper Forster.

Physicians—Dr. G. V. Poore, Dr. Wm. Park, Dr. George Roper, and Dr. Edwin Burrell.
Surgeon—Mr. Edwin Canton.

Surgeon-Dentist—Mr. Walter Whitehouse.

Resident Medical Officer—Mr. Edmund Overman Day.

Secretary—Mr. R. G. Kestin.

Advanced students in Medicine, and such practitioners as may desire it, are permitted to attend the practice of this Hospital gratis. If a certificate signifying such attendance be required, the sum of £5 5s. must be paid to the Physicians and Surgeons in ordinary conjointly.

DISPENSARY FOR DISEASES OF THE EAR,

6, Cambridge-street, Lothian-road.

Surgeon—Dr. J. J. Kirk Duncanson. Chemist—Mr. John Ritchie.

LONDON FEVER HOSPITAL, ISLINGTON.

260 beds.

Consulting Surgeon—Mr. W. S. Savory, F.R.C.S.

Consulting Physician—Dr. A. Tweedie.

Physicians—Dr. Broadbent and Dr. Cayley.

Assistant-Physician—Dr. Mahomed.

Resident Medical Officer—Mr. A. B. Prowse.

Secretary—Mr. Charles Finn.

ST. LUKE'S HOSPITAL FOR LUNATICS,

Old-street, E.C.

Physicians—Dr. Henry Monro and Dr. William Wood.

Surgeon—Mr. Alfred Willett.

Resident Medical Superintendent—Dr. George Mickley.

There are two resident Clinical Assistants, whose appointments are tenable for six months. The Visiting Physicians are also allowed by the Committee to take pupils. Patients admitted gratuitously, or on payment according to their circumstances. For information address the Secretary, H. Crespin, Esq.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL,

King William-street, Charing-cross.

The Hospital contains thirteen wards with fifty beds, and the patients (10,000 new cases annually) are seen daily at 1 p.m., and operations performed at 2 p.m. The following are the days of attendance of the Surgical Staff:—Monday and Friday, Mr. Power and Mr. Rouse; Tuesday and Thursday, Mr. Macnamara; Wednesday and Saturday, Mr. Cowell.

The practice of the Hospital is open to students. Fees—for six months, £3 3s.; perpetual, £5 5s.

Secretary—Mr. Geo. C. Farrant.

ROYAL LONDON OPHTHALMIC HOSPITAL,

Blomfield-street, Moorfields, E.C.—Founded 1804.—100 beds.

Consulting-Physician—Dr. F. J. Farre.

Consulting-Surgeons—Mr. J. Dickson, Mr. G. Critchett, Mr. W. Bowman, and Mr. J. Hutchinson.

Surgeons—Messrs. Wordsworth, Streetfield, J. W. Hulke, G. Lawson, J. Couper, Dr. J. Soelberg Wells, Warren Tay, J. Adams, and J. Tweedy.

House-Surgeons—Messrs. R. M. Guna and G. H. Burnham.

HOSPITAL FOR DISEASES OF THE SKIN,

52, Stamford-street, Blackfriars, S.E.

Surgeons—Mr. Jonathan Hutchinson and Mr. Warren Tay.

Assistant-Surgeons—Mr. Wyndham Cottle and Dr. E. Buchanan Baxter.

THE BRITISH HOSPITAL FOR DISEASES OF THE SKIN,

West Branch, Great Marlborough-street, W.; East Branch, Finsbury-square, E.C.; and South Branch, Newington-butts, S.E.

Surgeons—Mr. Balmanuo Squire and Mr. George Gaskoin.

ST. PETER'S HOSPITAL FOR STONE AND GENITO-URINARY DISEASES,

54, Berners-street, W.

The practice is free to hospital students.

Surgeons—Mr. Walter J. Coulson and Mr. W. F. Teevan.

Assistant-Surgeon—Mr. F. R. Heycock.

House Surgeon—Mr. S. P. Phillips.

Secretary—R. G. Salmond.

HOSPITAL FOR DISEASES OF THE THROAT AND CHEST,

Golden-square, W.

Outpost—7, Newington-butts, S.E.

Consulting Physician—Dr. Billing, M.D.

Physicians—Dr. Morell-Mackenzie, Dr. Semple, Dr. Prosser James.

Dr. W. MacNeill Whistler, and Dr. F. Semon.

Surgeons—Mr. Edward Woakes and Mr. W. R. H. Stewart.

Dental Surgeon—Mr. Oakley Coles.

Resident Medical Officer—Mr. T. Mark Hovell.

MEDICAL PREPARATORY COLLEGE,

Finchley, N. (close to Railway-station).

Principal—Dr. A. Wright, Medical Officer to Christ's College, and to several public institutions.

Eighteen months of the time spent by pupils at this College is recognised as part of the four years' curriculum of study. Terms £100 per annum. For further particulars apply to Dr. A. Wright, Finchley, N.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC,

23, 24, and 25, Queen's-square, Bloomsbury.

The Hospital contains 90 beds, of which 15 (contained in the In Memoriam Wing) are allotted to patients able to contribute a portion of the bare cost of their maintenance whilst in the Hospital; the County Convalescent Branch, at Finchley, 20 beds. The Physicians attend every Monday, Tuesday, Wednesday, and Friday, at half-past two o'clock. In- and out-patients' electrical room and general practice at that hour.

Physicians—Drs. Ramskill, Radcliffe, Hughlings-Jackson, Buzzard.

Physician for Out-patients—Dr. Charlton Bastian.

Assistant-Physicians—Drs. Maclure, Gowers.

Surgeon—W. Adams, F.R.C.S.

Resident Medical Officer and Registrar—A. E. Broster, M.R.C.S., L.R.C.P.

Medical practitioners and students will be admitted on showing their card.

PROVINCIAL.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.

200 beds.

Physicians—Dr. Cameron, Dr. Carter, and Dr. Williams.

Surgeons—Mr. Hamilton, Dr. Little, and Mr. Ransford.

Consulting Surgeons—Mr. Minshall, Mr. Higginson, and Dr. Nottingham.

Senior House-Surgeon—Dr. Wearing.

Junior House-Surgeons—Dr. Helme and Mr. Davies.

Clinical lectures given by the Physicians and Surgeons during the winter and summer sessions. Clinical Clerkships and Dresserships open to all students. Special wards for Accidents and Diseases of Children. Rooms for a limited number of resident students.

Fees for hospital practice and clinical lectures:—Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s.

The practice of the Hospital is recognised by all examining bodies.

NORFOLK AND NORWICH HOSPITAL.

120 beds.

One year's attendance recognised by Examining Boards. Fees: for the Physicians' practice, £10 10s.; for the Surgeons' practice—three months, £10; six months, £15; one year, £20; a year and a half, £25; two years, £30; perpetual, £40. Pupils resident and non-resident.

Consulting Physician—Dr. Copeman.

Physicians—Dr. Eade, Dr. Bateman, and Dr. Taylor.

Surgeons—Mr. Cadge, Mr. Crosse, and Mr. Williams.

Assistant-Surgeons—Dr. Beverley and Mr. Robinson.

Resident Medical Officer—Mr. Burton.

WEST RIDING LUNATIC ASYLUM, WAKEFIELD.

Dr. Herbert Major, the Medical Director of the West Riding Lunatic Asylum, lectures on Mental Diseases during the summer session. The systematic lectures are given at the School, and the clinical lectures at the Asylum, which now accommodates over 1400 patients. It is needless to point out how great and unusual an advantage is here presented to those inclined to make themselves conversant with the improvement made of late years in the treatment and management of the insane.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

(A Clinical and Training Institution for Gentlemen intended for the Medical Profession.)

Medical Officers—Dr. Millington, Dr. Totherick, Dr. Joseph Hunt, Mr. Vincent Jackson, Mr. J. O'B. Kough, Mr. C. A. Newnham.

This Hospital contains 210 beds; large male and female accident wards; wards for cases of burn; general medical and surgical wards: a ward for diseases peculiar to women; a children's ward, and a detached fever wing; also a commodious semi-detached out-patient department. To the general wards a clinical-room is attached, in which the analysis and microscopic inspection of the urine are conducted, also ophthalmoscopic and laryngoscopic examinations. Instruction is given in Chemistry, in Natural Philosophy, and in the Anatomy of the Dry Bones, Ligaments, Viscera, and Topographical Anatomy. The course of Practical Surgery includes the use of surgical apparatus, the performance of surgical operations, and the demonstration of Morbid Surgical Anatomy. In the Hospital the pupils are required to attend daily in the casualty-room, in the out-patient department, and in the wards, the instruction afforded being of a practical nature, including bandaging, the application of splints, tooth-drawing, and every kind of elementary professional detail, likewise how to observe and examine patients. The art of dispensing, the preparation of drugs and of pharmaceutical compounds, can also be learnt in the Hospital Dispensary and Laboratory. Operations are performed every Thursday at eleven o'clock, and practitioners are admitted. The practice of the Hospital is recognised by all the examining boards.

Lectures are given in Elementary Medicine by Dr. Totherick and by Dr. Hunt; and in Elementary Surgery (in accordance with the regulations of the Royal College of Surgeons) by Mr. V. Jackson.

Fees for hospital practice—For one year, £10 10s.; perpetual, £21. Some members of the honorary staff receive resident pupils. For further particulars apply to Dr. Joseph Hunt (Honorary Secretary to the Medical Committee), Darlington-street, Wolverhampton.

THE ROYAL DISPENSARY, EDINBURGH.

Consulting Physician—Professor Sanders.

Consulting Surgeon—Professor Spence.

Consulting Physician-Accoucheur—Dr. Keiller.

Medical Officers—Dr. Linton, Dr. W. Husband, Dr. James Andrew, Dr. D. Wilson, Dr. F. W. Moinet, Dr. A. J. Sinclair, Dr. Cotterill, and Dr. Walker.

Midwifery Department—Dr. Andrew.

Vaccination—Dr. Husband.

Apothecary—Mr. R. Urquhart.

Secretary to Medical Officers—Dr. Andrew.

ROYAL HOSPITAL FOR SICK CHILDREN, MEADOWSIDE HOUSE, EDINBURGH.

Consulting Physicians—Professor Sir Robert Christison, Bart., Drs. Charles Wilson, Graham Weir, and George W. Balfour.
Consulting Surgeon—Professor Spence.
Pathologist—Professor Sanders.
Ordinary Physicians—Drs. Linton, Dunsmure, Andrew, and Underhill.
Extra Physicians—Drs. Cunynghame and Carmichael.
Assistant to Extra-Physicians—Dr. G. Mackay.
Surgeon-Dentist—Dr. Smith.
Ophthalmic Surgeon—Dr. Argyll Robertson.
Resident Physician—Dr. Aymer R. Macdougall.
Honorary Secretary—Mr. John Henry, 20, St. Andrew-square.
Hon. Treasurer—R. S. Wyld, LL.D., 19, Inverleith-row.
Fees: To Hospital, three months, £1 1s.; to Dispensary Department, three months, £1 1s.

GLASGOW ROYAL ASYLUM, GARTNAVEL.

The Asylum contains about 550 patients, including all classes. Dr. Yellowlees, Physician-Superintendent, lectures on Mental Diseases in summer; fee, £2 2s.

GLASGOW EYE INFIRMARY,

Berkeley-street, and 76, Charlotte-street.
Consulting Surgeon—Dr. George Buchanan.
Surgeons—Drs. Thomas Reid, Thos. S. Meighan, and Henry E. Clark.
Assistant-Surgeons—Drs. J. Crawford Reuton, D. N. Knox, and Johnston Macfie.
Resident Clerk—Mr. George Hunter.
Secretary—George Black, 88, West Regent-street.
Hour of visit, 1 p.m. Sixty-four beds. Student's fee for six months, attendance, £2 2s.; or for one year's attendance, £3 3s. To those attending, or who have attended, the lectures on the Eye in Glasgow University, £1 1s. for six months; or £1 11s. 6d. for twelve months.

GLASGOW DISPENSARY FOR DISEASES OF THE EAR,

241, Buchanan-street.

A course of lectures and clinical instruction are given to the students attending the Dispensary during the months of May, June, and July. Average number of cases treated, 800 annually.

Surgeon and Lecturer—Dr. James Patterson Cassells.

ST. MARK'S OPHTHALMIC HOSPITAL AND DISPENSARY FOR DISEASES OF THE EYE AND EAR,

Lincoln-place, Dublin.

Attending Surgeons—Richard Rainsford, M.B., M.Ch., F.R.C.S.I., and John B. Story, M.B., B.Ch.
Assistant-Surgeon (Resident)—Arthur H. Benson, M.B.T.C.D., L.R.C.S.I.
Instruction is given daily from ten to twelve o'clock, and operations performed on Wednesdays and Saturdays at eleven o'clock. Fee for three months' attendance, £3 3s.
Special courses on the Ophthalmoscope and the Anomalies of Refraction and Accommodation are held from time to time.

ROTUNDA HOSPITALS, DUBLIN.

Master—Dr. Lombe Atthill.
Assistant-Physicians—Dr. Wm. Smyly and Dr. Alex. Duke.
Pathologist—Dr. G. F. Duffey.

This institution consists of two distinct Hospitals—namely, the Lying-in Hospital, into which 1200 labour cases are on an average admitted annually, and the Auxiliary Hospital, set apart for the reception and treatment of patients suffering from the various forms of uterine and ovarian disease; about 500 patients are received into this Hospital during each year.

There is also a large Extern Maternity in connexion with the Hospital, and a Dispensary for Diseases Peculiar to Women, which is open daily.

Pupils are admitted to the practice of all these departments.

Accommodation is provided for a number of Intern Pupils.

Applications to be made to the Master or Assistant-Physicians, at the Hospitals, Rutland-square, Dublin.

THE PUBLIC SERVICES.

ARMY MEDICAL DEPARTMENT, WHITEHALL-YARD.

As we are daily expecting a fresh Army Medical Warrant it would be useless to publish regulations already doomed. We only trust that the forthcoming document will be more satisfactory than its predecessors. At all events, we shall publish it as soon as it appears, and let our readers know our opinion of its merits.

ARMY MEDICAL SCHOOL.

President of the Senate.—Sir William M. Muir, K.C.B., M.D., Director-General of the Army Medical Department.

Members of the Senate.—Sir Alexander Armstrong, K.C.B., F.R.S., Director-General of the Medical Department of the Navy; Surgeon-General Sir Joseph Fayrer, K.C.S.I., F.R.S., Physician to the Council of India; the Professors of the Army Medical School; and the Principal Medical Officer at Netley (*ex officio*).

Professors.—Military Surgery: Surgeon-General T. Longmore, C.B. (half-pay). Military Medicine: Inspectors-General W. C. Maclean, M.D., C.B. Military Hygiene: Surgeon-Major F. S. B. F. De Chaumont, M.D., F.R.S. (half-pay). Pathology: William Aitken, M.D., F.R.S. Naval Hygiene: Deputy Inspector-General J. D. Macdonald, M.D., F.R.S., R.N.

Assistant-Professors.—Military Surgery: Surgeon-Major F. P. Staples. Military Medicine: Surgeon-Major H. R. L. Veale, M.D. Military Hygiene: Surgeon-Major J. L. Notter, M.D. Pathology: Surgeon-Major J. P. H. Boileau, M.D.

Secretary.—Heinrich Theodor Gustav Borchert, Esq.

Candidates for commissions in the Army and Navy and in the Queen's Indian Service proceed to Netley after passing the examination in London. At Netley they attend the medical and surgical practice of the Royal Victoria Hospital, and learn the system and arrangements of naval and military hospitals. During four months they attend the lectures given by the Professors and Assistant-Professors, and go through a course of practical instruction in the hygienic laboratory and microscopical room.

INDIAN MEDICAL SERVICE.

Similar observations apply, we fear, to the Indian as to the Army Medical Service. Unification looms in the distance.

The candidate for the Indian Medical Service may be either married or unmarried, and must not exceed twenty-eight years of age. After passing the final examination, pay is granted at the rate of 10s. a day. Indian pay and allowances only come into force after landing in India.

NAVAL MEDICAL DEPARTMENT, ADMIRALTY.

QUALIFICATIONS AND REGULATIONS FOR THE EXAMINATION OF CANDIDATES FOR COMMISSIONS IN THE MEDICAL SERVICE OF THE ROYAL NAVY.

The Lords Commissioners of the Admiralty are pleased to direct that the following regulations, relative to the examination of candidates for the appointment of Surgeon in the Royal Navy, shall in future be adopted:—

1. Every candidate desirous of presenting himself for admission to the Naval Medical Service must be not under twenty-one nor over twenty-eight years of age. He must produce a certificate from the District Registrar, in which the date of birth is stated; or, if this cannot be obtained, an affidavit from one of the parents or other near relative, who can attest the date of birth, will be accepted. He must also produce a certificate of moral character, signed by a clergyman or a magistrate to whom he has been for some years personally known, or by the president or senior professor of the college at which he was educated.

2. He must be free from organic disease, and will be required to make a declaration that he labours under no mental or constitutional disease or weakness, nor any other imperfection or disability that can interfere with the most efficient discharge of the duties of a Medical Officer in any climate. His physical fitness will be determined by a Board of Medical Officers, who are to certify that his vision comes up to the required standard, which will be ascertained by the use of Snellen's test-types. He must also attest his readiness to engage for general service, and to proceed on foreign service when required to do so.

3. He must be registered under the Medical Act in force at the time of his appointment as licensed to practise Medicine and Surgery in Great Britain or Ireland.

4. Certificates of registration, character, and age must accompany the schedule when filled up and returned.

5. Candidates will be examined by the Examining Board in the following subjects:—Anatomy and Physiology; Surgery; Medicine, including Therapeutics and the Diseases of Women and Children; Chemistry and Pharmacy, and a practical knowledge of drugs. (The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside.) The eligibility of each candidate for the Naval Medical Service will be determined by the result of the examinations in these subjects only. Candidates who desire it will be examined in Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany with special reference to *Materia Medica*, also in French and German; and the number of marks gained in these subjects will be added to the

total number of marks obtained in the obligatory part of the examination by candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of these branches of science.

6. After passing this examination, every candidate will be required to attend one entire course of practical instruction in the Medical School at Netley on—(1) Hygiene, (2) Clinical and Naval and Military Medicine, (3) Clinical and Naval and Military Surgery, (4) Pathology of Diseases and Injuries incident to Naval and Military Service.

7. At its conclusion the candidate will be required to pass an examination on the subjects taught in the school. If he give satisfactory evidence of being qualified for the practical duties of a Naval Medical Officer, he will be eligible for a commission as Surgeon.

8. During the period of his residence at the Netley Medical School each candidate will receive an allowance of 5s. per diem with quarters, or 7s. per diem without quarters, to cover all costs of maintenance; and he will be required to provide himself with uniform (viz., the Regulation undress uniform of a Surgeon, but without the sword).

9. All candidates will be required while at Netley to conform to such rules of discipline as the Senate may from time to time enact.

10. After completing three years' full-pay service, Surgeons will be allowed to be examined for the rank of Staff Surgeon; but no Surgeon can be promoted to the rank of Staff Surgeon until he shall have served five years, two of which must have been in a ship actually employed at sea.

RANK, PAY, AND POSITION OF NAVAL MEDICAL OFFICERS.

1. Promotion to the rank of Fleet Surgeon is open to officers for distinguished or special service, although twenty years on full pay may not have been completed; such Fleet Surgeons will have 16s. a day half-pay.

2. Fleet Surgeons rank with Commanders, according to date of commission.

3. The whole time served on full pay as a Surgeon to be allowed to Staff Surgeons to qualify for the rank of Fleet Surgeon, provided the examination for Staff Surgeon is passed before the officer completes ten years' service, otherwise only ten years served as Surgeon will be allowed to count.

4. Fleet Surgeons are appointed to the flag-ships of commanders-in-chief on foreign stations, with an allowance of 5s. a day in addition to their established pay.

5. The hospital allowances for Naval Medical Officers at home and abroad, in lieu of provisions, for themselves and servants, and for fuel and light, are as follows:—Inspectors General of Hospitals, £85 at home, £130 abroad; Deputy Inspectors-General, £67 at home, £112 abroad; Fleet-Surgeons and Staff-Surgeons, £53 at home, £112 abroad; Surgeons, £39 at home, £108 abroad. In cases where Medical Officers draw provisions or fuel from public stores, they will be charged for the same at cost price.

6. The travelling allowances, extra pay, lodging money, and compensation for losses are fixed for Naval Medical Officers according to their relative rank in the service.

7. Medical Officers have cabins according to their relative rank in the service.

8. The full and half-pay of Naval Medical Officers is in accordance with the following scale:—

Full-pay: Surgeon—Under five years' service (except during the session at Netley) [see Regulations], 11s.; under eight years' service, 12s. 6d.; under eleven years' service, 14s.; under fourteen years' service, provided he passed his examination for Staff Surgeon while under ten years' service, 15s. 6d.; above fourteen years' service, ditto, 17s. Staff Surgeon—On promotion, or under fourteen years' service, 18s.; ditto, or under seventeen years' service, £1; and for each additional year of service 1s. a day more until the maximum is reached—namely, £1 2s. Fleet Surgeon—On promotion, or under twenty years' service, £1 3s.; ditto, or above twenty years' service, £1 4s.; and for each additional year of service 1s. a day more until the maximum is reached—namely, £1 10s. Deputy Inspector-General of Hospitals and Fleets—On promotion, or under twenty-two years' service, £1 11s.; ditto, or above twenty-two years' service, £1 12s.; and for each additional year of service 1s. a day more until the maximum is reached—namely, £1 18s. Inspector-General of Hospitals and Fleets—On promotion, or under twenty-five years' service, £2 5s.; ditto, or above twenty-five years' service, £2 6s.; and for each additional year of service 1s. a day more until the maximum is reached—namely, £2 10s. Half-pay: Surgeon—Under five years' service, 6s.; under eight years' service, 8s.; under eleven years' service, 10s.; above eleven years' service, provided he passed his examination for Staff Surgeon while under ten years' service, 11s. Staff Surgeon—On promotion, or under fourteen years' service, 11s.; ditto, or under seventeen years' service, 13s.; ditto, or above seventeen years' service, 14s. Fleet Surgeon—On promotion, or under twenty years' service, 16s.; ditto, or above twenty years' service, 16s. 6d.; and for each additional year of service 6d.

a day more until the maximum is reached—namely, 18s. 6d. Deputy Inspector-General of Hospitals and Fleets—On promotion, or under twenty-two years' service, £1 1s.; ditto, or above twenty-two years' service, £1 2s.; and for each additional year of service 1s. a day more until the maximum is reached—namely £1 7s. Inspector-General of Hospitals and Fleets—On promotion, or under twenty-five years' service, £1 11s.; ditto, or above twenty-five years' service, £1 12s.; and for each additional year of service 1s. a day more until the maximum is reached—namely, £1 18s.

9. Retirement is provided for according to age and service, under special regulations.

DECLARATION.

Recommended by _____, I _____, _____ years of age in _____ last (vide accompanying Certificate), a candidate for appointment as a Medical Officer in the Royal Navy, do hereby engage for general service, and attest my readiness to proceed on duty abroad whenever required to do so.

I declare that I labour under no mental or constitutional disease or weakness, nor any other imperfection or disability which can interfere with the most efficient discharge of the duties of a Medical Officer in any climate.

Signature, _____

Date, _____

Place of residence, _____

SCHEDULE OF QUALIFICATIONS.

I have in my possession the following Degrees, Diplomas, and other Qualifications in Medicine, Surgery, and in Arts:—

I wish to be examined in the following voluntary subjects, viz.:—

Signature, _____

CIRCULAR No. 12, C.W.

Admiralty, March 6, 1875.

(Medical Officers of the Navy.)

My Lords Commissioners of the Admiralty having had under their consideration the position of the Medical Officers of the Navy, are pleased, under the authority of her Majesty's Order in Council of February 4, 1875, to establish the following regulations:—

1. Surgeons on entry to have the same relative rank as Paymasters, Chief Engineers, and Naval Instructors—namely, to rank with Lieutenants under eight years' seniority, and to wear uniform corresponding to such relative rank.

2. Staff Surgeons to be denominated "Fleet Surgeons," and Staff Surgeons second-class simply "Staff Surgeons"; the distinction in rank between these two grades to be denoted by a small difference in the uniform of the Staff Surgeon, who instead of three stripes of gold lace round the sleeve of the coat, which the Fleet Surgeon will wear, will wear two stripes of gold lace, with a stripe of narrow gold braid between them.

3. Inspectors-General to be compulsorily retired at the age of sixty; to be allowed £2 per day, provided they shall have completed the period of service now required to entitle them to the maximum half-pay of their rank; should they not have completed such period of service, they will be retired at the rate of half, or retired pay, specified in the Order in Council of February 22, 1870.

4. Deputy Inspectors-General to be compulsorily retired at sixty; if in the first six of their rank, to be allowed 33s., others 30s. per diem, provided that they shall have completed the period of service now required to entitle them to the maximum half-pay of their rank; should they not have completed such period of service, they will be retired at the rate of half, or retired pay, specified in the Order of Council of February 22, 1870.

5. Fleet Surgeons and Staff Surgeons to be placed on the same scale of retirement as chaplains and naval instructors, secretaries and paymasters; that is, the maximum to be £450 per year instead of £400.

6. Fleet Surgeons to have the option of retiring after twenty years' full-pay service in all ranks at 15s. per day, and after twenty-five years' full-pay service 21s., subject in each case to their Lordships' approval; but of those now on the list, not more than ten to retire under this clause in each year (the Officers having the option according to seniority) unless their Lordships should approve (with the consent of the Treasury) of a larger number so retiring. Applications from Officers wishing to retire under this clause should be lodged at the Admiralty before November 30 in each year, in order that they may be dealt with, according to seniority, before the end of the year.

7. All Medical Officers hereafter entered to have the option of so retiring, subject to the approval of their Lordships in each case.

By command of their Lordships,

ROBERT HALL.

To all Commanders - in - Chief, Captains,
Commanders, and Commanding Officers
of Her Majesty's Ships and Vessels.

THE INTRODUCTORIES.

THE following are the days and hours of the various Introductory Lectures, with the names of the respective lecturers:—

Hospital.	Date.	Lecturer.	Hour.
Charing-cross	Wed. Oct. 1	Mr. F. Hird	4 p.m.
King's College	"	Dr. A. B. Duffin	4 p.m.
Middlesex	"	Dr. S. Coupland	3 p.m.
St. George's	"	Mr. Dalby	4 p.m.
St. Mary's	"	Mr. St. G. Mivart	3 p.m.
St. Thomas's	"	Dr. Cory	4 p.m.
University College	"	Dr. Thane	8 p.m.
Westminster	"	Dr. Dupré	4 p.m.

TERMS OF SUBSCRIPTION.

(Free by post.)

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TERMS FOR ADVERTISEMENTS.

Seven lines (60 words)	£0 4 6
Each additional line (10 words)	0 0 6
Half-column, or quarter-page	1 5 0
Whole column, or half-page	2 10 0
Whole page	5 0 0

Births, Marriages, and Deaths are inserted Free of Charge.

THE MEDICAL TIMES AND GAZETTE is published on Friday morning: Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.

Medical Times and Gazette.

SATURDAY, SEPTEMBER 13, 1879.

THE WEEK.

TOPICS OF THE DAY.

AN ordinance has been issued by the Government of Bosnia prescribing the conditions under which persons may practise medicine, surgery, midwifery, dentistry, and even the veterinary art, in Bosnia and Herzegovina. All physicians, surgeons, etc., who belong to Bosnia, Herzegovina, or any part of the monarchy, and who have obtained a degree or licence to practise from a university or other authorised institution of the Austro-Hungarian empire, may practise their profession in Bosnia and Herzegovina. They must, however, first exhibit their diplomas for the inspection of the authorities in whose districts they purpose residing, and, upon receiving their endorsement, they may practise any-

where in the provinces. Military physicians and surgeons are to be exempted from these formalities, but all practitioners are to be requested to use every endeavour to promote vaccination and revaccination among the population.

In the face of the unavoidable hitch which has occurred under the present system of working the Artisans' and Labourers' Dwellings Improvement Act of 1875, the Shoreditch Vestry has instructed its Parliamentary Committee to forward to the Metropolitan Board of Works a memorial embodying the following resolution:—"That, seeing that the carrying out of Mr. Cross's Act has, in respect to the six sites disposed of, involved a loss to the ratepayers of the metropolis of half a million of money; and that the loss resulting at the same rate by dealing with the remaining sites for which Parliamentary powers have been obtained will probably amount to two millions, without any adequate advantage, this Vestry is of opinion that no further action should be taken by the Metropolitan Board of Works in that direction, but that an Act of Parliament should be obtained to authorise the Board to dispose of the land acquired to the best advantage." The representatives of Shoreditch at the Metropolitan Board of Works supported this view when the Vestry debated the subject.

The Metropolitan Board of Works will no doubt have learnt a useful lesson as to the extent of the powers granted to them, by the difficulty which has attended the payment of the expenses incurred by them in promoting Bills in Parliament affecting the supply of water to the metropolis. One of the last statutes passed in the last session was an authority to pass the items referred to, the Act reciting that the Board did, during the session of 1878, in good faith, but beyond the powers conferred upon them, promote two Bills for the supply of water, and such Bills were read a first time in the House of Commons and subsequently withdrawn. Certain expenses connected with the Bills were incurred, and the same had subsequently been disallowed by the public auditor; and the Act now provides that those expenses may be defrayed, when audited and taxed, as if they were legally incurred by the Board in the execution of their duty.

At a meeting of the Coseley Sanitary Authority, held last week, it was reported that in one part of the district the ale was brewed with water obtained from a brook which was polluted with sewage. The surveyor was authorised to serve notices on the brewers for the supply of a purer description of water.

The Dublin correspondent of the *Times* states that the Government has at length taken in hand the long neglected subject of the sanitary state of Dublin, and has resolved to issue a Royal Commission to inquire into and report upon the sewerage and drainage systems of the city, and their effect on its sanitary condition. A letter from the Chief Secretary of Ireland announcing this intention was last week read at a meeting of the Corporation. It stated that the commissioners to be appointed were—Mr. Robert Rawlinson, C.B., C.E., chief engineering member of the Local Government Board in England; and Dr. McCabe, inspector of the Local Government Board in Ireland.

Saturday last was the date appointed for this year's Hospital Saturday collection in the metropolis, and the arrangements were much the same as those adopted on previous occasions. A considerable number—nearly three hundred—of benevolent ladies, and some gentlemen, presided over boxes at selected places in the more frequented thoroughfares and in places of great resort. The present is the sixth annual collection since the institution of the movement, and from what could be gathered before our going to press, the result would appear to be about equal to average of former years; we shall, however, next week be able to give more

detailed particulars. But it may be stated that at a very late hour on Monday night the contents of 259 boxes had been counted, and amounted to a total of a little over £1028, the average being within one halfpenny of that of last year. In addition to the "street collection," the sum of £693 18s. 5d. had been paid in to the head office up to Monday evening.

DEATH OF PROFESSOR FUNKE.

We much regret to have to record that this distinguished physiologist has just died at Freiburg, at the age of fifty-one years.

THE METROPOLITAN WATER-SUPPLY FOR JULY LAST.

The report of the water examiners on the quality of the water supplied for use in the metropolis during the month of July last is again unsatisfactory. From the general bad condition of the water at the intakes of the various companies, and the prevalence of floods, caused by the almost incessant rains during the month in question, the filtration of the water-supply was again attended with much difficulty, more especially with those companies not having sufficient storage capacity and impounding reservoirs to avoid taking in water during the time that floods prevail. Dr. Frankland reports that the Thames water delivered by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies was much polluted by organic matters, and was not fit for dietetic use. The West Middlesex Company's water was also slightly turbid, and contained moving organisms. The Lea water distributed by the New River and East London Companies was but slightly better, and the New River water was, moreover, a little turbid, owing to suspended crystals of carbonate of lime. The deep well-water delivered by the Kent and Colne Valley Companies and by the Tottenham Local Board of Health during the month had not been affected by the heavy rains; it was, as usual, clear and bright, and of excellent quality for dietetic purposes.

DEATH OF MR. THOMAS TATUM, F.R.C.S.

Our readers, and especially those of them who are old St. George's men, will regret to learn that Mr. Thomas Tatum died on Friday last week. He resigned the office of Surgeon to St. George's Hospital in 1867; and died at the house of his son-in-law, at Eastbourne, on the 5th inst., in the seventy-seventh year of his age. We shall next week give a short notice of his life and career.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 4:—

Churchouse, William John Franklin, Chard.
Fooks, George Ernest, Harrow.
Leech, Henry Richard, Birmingham.
Pearce, Henry, Eastbourne.
Thomson, George James Crawford, Newington.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Deane, Edwin, Charing-cross Hospital.
Gibbs, Francis Charles, St. Thomas's Hospital.
Green, Edwin Collier, St. Thomas's Hospital.
Kinneir, Francis Wm. Edward, St. Bartholomew's Hospital.

BIRTHS.

CHURCHILL.—On September 4, at 4, Cranley-gardens, South Kensington, the wife of Frederick Churchill, M.D., of a son.
GAIRDNER.—On September 7, at 9, College, Glasgow, the wife of Professor Gairdner, M.D., of a daughter.

MATCHAM.—On September 5, at 13, Gladstone-street, S.E., the wife of Alfred Matcham, M.D., of a daughter.

NASH.—On September 5, at 123, Lansdowne-road, Notting-hill, the wife of Edmund Nash, M.D., of a daughter.

STEWART.—On September 1, at Romanno House, Peeblesshire, the wife of Professor Grainger Stewart, M.D., of twin sons.

MARRIAGES.

COATES—HOBART.—On September 2, at Bath, Charles Coates, F.R.C.P., to Mary Catherin, Lady Hobart.

COTTERILL—JONES.—On September 4, at Rodedern, Anglesey, J. Montague Cotterill, M.B., F.R.C.S.E., to Mary J. Wynne-Jones, eldest daughter of the Ven. Archdeacon Wynne-Jones, of Treiorwerth, Anglesey.

DAVIES—LEWIS.—On August 2, at Newport, Mon., George Augustus Davies, L.R.C.P. Lond., of Newport, to Amy, second daughter of Ebenezer Lewis, Esq., J.P., of Maindee Hall, near Newport.

FRANKS—GREEN.—On September 3, at Monkstown Church, Co. Dublin, Kendal Franks, M.D., of 60, Fitzwilliam-square North, to Lina, eldest daughter of Richard J. Greene, Esq., of the Cedars, Rochestown-avenue, Co. Dublin.

NEWMAN—HUTCHINSON.—On September 2, at Westminster, Thomas Prichard Newman, son of the late Edward Newman, F.L.S., to Jane Elizabeth, eldest daughter of Jonathan Hutchinson, F.R.C.S., of 15, Cavendish-square.

NORTON—ROSS.—On September 4, at Tobermory, Argyleshire, George Everitt Norton, M.R.C.S.E., of 24, Upper Baker-street, London, to Jane Helen Ross, third daughter of Hugh Ross, Esq., W.S., Sheriff Substitute of Argyleshire.

DEATHS.

BEATTY, MARGARET ELIZABETH, wife of Surgeon-Major J. McN. Beatty, L.R.C.S.I., at Winchester; on September 4.

DAY, WILLIAM EDWARD, L.R.C.P. Edin., at Barton Hill House, Bristol, on September 7, aged 51.

GOODE, HENRY, M.B., M.R.C.S., at Derby, on September 6, aged 60.

MAXWELL, WILLIAM BROOK CHARLES, M.D., at 8, Belgrave-place, Tonbridge Wells, on September 6, aged 55.

RUSSELL, WILLIAM SMYTH, M.R.C.S., L.S.A., late of Accrington, at Hebert House, Denmark-hill, S.E., on August 28, aged 42.

TATUM, THOMAS, F.R.C.S., late Consulting Surgeon to St. George's Hospital, at Eastbourne, on September 5, in his 77th year.

WOOD, HENRY, eldest surviving son of Frederick Wood, F.R.C.S. Eng., of Brighton, drowned immediately after his arrival at Melbourne, Australia, on July 10, aged 25.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BIRMINGHAM GENERAL HOSPITAL.—Candidates must be graduates in medicine of a University by examination, and Fellows or Members of the Royal College of Physicians in London; but twelve months from the date of election will be allowed for obtaining the F.R.C.P. or M.R.C.P. Applications, accompanied by diplomas or certificates of registration and original testimonials, to Wm. T. Grant, House-Governor, on or before September 29.

KENT AND CANTERBURY HOSPITAL.—House Surgeon. Candidates must be duly registered, unmarried, and not more than forty years of age. Applications, with testimonials, to the Secretary at the Hospital, from whom further particulars may be obtained, on or before September 26.

JERSEY GENERAL DISPENSARY.—A Resident Visiting and Dispensing Medical Officer, possessing the double qualification, and unmarried, is wanted for November 1. Canvassing viates election. Election probably early in September. Address, Honorary Secretary of Jersey General Dispensary, Oak-walk, Jersey.

MANCHESTER ROYAL INFIRMARY.—Honorary Assistant-Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England. Applications, with diplomas, original testimonials, and a certificate of age, to the "Chairman of the Board," on or before September 10.

TO CORRESPONDENTS.

We beg to return our best thanks to the Registrars and Secretaries of the various Universities, Colleges, and Schools, for their prompt replies to our Circular, and for the trouble they have taken in supplying the latest Regulations of the Institutions with which they are connected.

As this number is almost entirely devoted to matter mainly concerning Students, many most important communications and contributions unavoidably stand over.

We have here given everything of importance for the entering Student to know; for any further details he should apply for a prospectus to the authorities of the School he may select.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Corrigendum.—We are aware, as is "every schoolboy," that Oken was a German, though some Hibernian spirit—moved, we suppose, by a belief that all men of eminence and imagination must be Irish—managed to have the name printed as O'Ken in our article last week.

Associate, King's College.—In all probability Professor Wood, Sir Trevor Lawrence, Bart., M.P., is a member of the London College of Surgeons.

"Arts Examination"—Two Candidates—"G. L. R."—The result of the recent examinations for intending candidates for the Fellowship and Membership of the College of Surgeons, held at Burlington House, will, we are informed, be communicated to all next week. Successful candidates will then be allowed to commence their professional studies.

Jonathan.—The Medical School of the University of Pennsylvania dates from the appointment of Dr. Morgan, in 1765, as Professor of the Theory and Practice of Physic. Dr. William Shippen's chair of Anatomy and Surgery was created the same year; and the appointment of Dr. Kubler, Professor of Botany and Materia Medica, and of Dr. Benjamin Rush, of Chemistry, followed. In 1767 the Medical School was regularly organised, and the next year degrees were conferred.

COMMUNICATIONS have been received from—

Dr. SPARKS, Crewkerne; Mr. VAGO, London; Mr. HOLMS, London; Mr. PROCTOR, Newcastle; Dr. M'CORMACK, Belfast; Dr. DUNGLISON, Philadelphia; Mr. CULLINGWORTH, Manchester; Mr. PARKER, London; Dr. DUFFIN, London; Messrs. WHEELER and Co., London; Dr. PEARSON IRVINE, London; Mr. M. BECHER, Ramsgate; Messrs. J. SOARES and Co., London; Mr. T. M. STONE, London; Mr. HILL, Greenock.

BOOKS AND PAMPHLETS RECEIVED—

Middlesex Hospital Reports for 1877—E. Klein, M.D., F.R.S., and E. Noble Smith, L.R.C.P., M.R.C.S., Atlas of Histology, part 7—Transactions of the Medical and Chirurgical Faculty of the State of Maryland—E. M. Holmes, F.L.S. Holmes' Botanical Note-Book—A. L. Vago, Phrenology Vindicated.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Revue Médicale Française et Étrangère—Louisville Medical News—Nature—Boston Medical and Surgical Journal—National Board of Health Bulletin—Weekly Welcome—Vaccination Inquirer—Journal of the Scottish Meteorological Society—Obstetrical Journal—La Crónica Médica—North Carolina Medical Journal—Canada Medical and Surgical Journal.

APPOINTMENTS FOR THE WEEK.

September 13. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

15. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

16. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

17. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

18. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

19. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 6, 1879.

BIRTHS.

Births of Boys, 1327; Girls, 1319; Total, 2643.
Average of 10 corresponding years 1869-78, 2215.9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	766	627	1393
Average of the ten years 1869-78 ...	682.9	641.0	1323.9
Average corrected to increased population ...	...	...	1417
Deaths of people aged 80 and upwards ...	...	...	33

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78, after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small- pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West ...	561359	5	7	6	1	1	...	2	...	25
North ...	751729	...	11	10	1	7	1	5	...	34
Central ...	334369	...	2	8	...	3	...	1	...	17
East ...	639111	...	9	12	1	10	...	3	2	32
South ...	967692	2	8	14	1	15	...	8	3	39
Total ...	3254260	7	37	50	4	33	1	19	5	146

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	29.970 in.
Mean temperature ...	...	...	...	...	56.8°
Highest point of thermometer ...	...	...	...	...	73.4°
Lowest point of thermometer ...	...	...	...	...	39.5°
Mean dew-point temperature ...	...	...	...	...	51.0°
General direction of wind ...	...	...	...	...	S.W. & N.E.
Whole amount of rain in the week ...	...	...	...	...	0.02 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Sept. 6, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Sept. 6.	Deaths Registered during the week ending Sept. 6.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the week.	Lowest during the week.	Weekly Mean of Daily Values		In Inches.	In centimetres.
London ...	3620868	48.0	2646	1393	73.4	39.5	56.8	13.78	0.02	0.05
Brighton ...	105608	44.9	65	33	69.3	45.0	55.4	13.00	0.05	0.13
Portsmouth ...	131821	29.4	82	29	...	...	...	...	...	...
Norwich ...	85222	11.4	54	43	75.0	43.0	56.9	13.83	0.00	0.00
Plymouth ...	74293	53.3	45	31	65.5	39.5	53.0	11.67	0.08	0.20
Bristol ...	209947	47.2	148	58	...	...	...	...	...	...
Wolverhampton ...	75100	22.1	49	24	68.2	39.4	53.0	11.67	0.06	0.15
Birmingham ...	388834	46.3	303	122	...	...	...	...	...	...
Leicester ...	125622	39.3	72	55	69.0	39.0	55.7	13.17	0.03	0.08
Nottingham ...	169396	17.0	118	61	71.5	37.8	55.5	13.06	0.12	0.30
Liverpool ...	538338	103.3	402	248	66.7	48.3	55.8	13.23	0.16	0.41
Manchester ...	361819	84.3	245	132	...	...	...	...	...	...
Salford ...	177849	34.4	126	60	...	...	...	...	...	...
Oldham ...	111318	23.9	77	36	...	...	...	...	...	...
Bradford ...	191046	26.5	119	53	64.9	45.6	54.5	12.50	0.25	0.63
Leeds ...	311860	14.5	212	104	71.0	44.0	56.4	13.55	0.24	0.61
Sheffield ...	297138	15.1	185	80	71.0	42.0	55.2	12.89	0.15	0.38
Hull ...	146347	40.3	111	46	...	...	...	...	...	...
Sunderland ...	114575	41.4	83	50	79.0	46.0	56.4	13.55	0.24	0.61
Newcastle-on-Tyne ...	146948	27.4	98	49	...	...	...	...	...	...
Edinburgh ...	226075	53.9	146	77	...	...	...	...	...	...
Glasgow ...	578158	95.8	370	162	62.3	43.0	54.1	12.28	1.16	2.95
Dublin ...	314666	31.3	203	158	65.8	39.0	55.0	12.78	0.57	1.45
Total of 23 Towns in United Kingdom	8502896	38.6	5959	3106	79.0	37.8	55.3	12.95	0.22	0.57

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.97 in. The highest reading was 30.32 in. on Monday evening, and the lowest 29.54 in. at the end of the week.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON A CASE OF

PHOTOPHOBIA AND PARAPLEGIA YIELDING TO TONIC TREATMENT.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.,
Physician to St. Mary's Hospital.

GENTLEMEN,—The case I am about to bring before you to-day is one of some value, not only for its own sake as a typical instance of a certain morbid condition, but also on account of its bearing on other less simple forms of disease. What befalls one nervous centre may in all probability befall another, though of a much higher grade and endowment, and it may help us materially to comprehend some disorders of the more complex and delicate organ if we examine their analogues in one of simpler structure and humbler functions.

T. J., aged ten, admitted April 25, 1879. A thin, pallid, large-eyed girl; height fifty-five inches and a half; always a nervous child. Parents living; mother looks hearty; one sister has phthisis; one brother said to be completely paralysed, and another partly so. She has had enlarged cervical glands; is sick at times; will eat no meat, but potatoes, fish, and bread-and-butter; is always fretting and pining. Four months ago she had typhoid fever, and since then has never been so well as before. Her mother states that on getting up after the typhoid, in February last, her legs appeared weak, the right especially; they got worse, and a fortnight later she was unable to stand. She now is quite paraplegic. In August, 1878, unsteadiness of her arms and legs was so marked, that her Sunday-school teacher observed one day that she must have St. Vitus' dance. She is very intelligent, but averse to answering questions. Her arms are strong. She has always more or less headache, and shooting pain in head from temple to temple, not constant. Light increases the pain, so that she habitually covers her eyes with her hand; keeps the lids half shut. The conjunctivæ are a little red; the globes appear normal; no phlyctenulæ are present on the corneæ. There is tenderness over the spines of the dorsal vertebrae, and over the sacral. The right knee is painful, and is kept flexed; there is pain on movement of the hip-joint. In right iliac fossa there is some pain on deep pressure. Heart-sounds normal, apex-beat well within vertical nipple line. Temperature normal. Bowels usually act only once in five or six days. Olei morrh. ʒj. bis die, ferri carb. saccht. gr. x. bis die.

May 5.—She is amusing herself to-day looking at pictures, but covered her eyes as soon as I came into the ward. She had been all the morning in the children's ward, which is close by. Her legs look rather wasted, and of a dull venous tint; she seems to feel some pain when the right is extended, and flexes it very slowly. She cannot stand at all; drops down as soon as she is placed on her feet, and seems quite frightened if desired to make an effort to stand. Very little reflex action on tickling soles. She complains of pain in both knees (most in left), and also in wrists. Opens her eyes a little better. I promise her sixpence when she can walk alone round the ward. Pulse 86.

8th.—Muscles of both legs very inert to faradaic current; she feels it apparently much, and cries a great deal while it is applied. Pt. c. oleo, ferri, et quin. citrat. gr. v., spt. chlorof. ℥v., aq. ʒss., ter die.

12th.—Has her eyes covered up now; but one of the students tells me that the other day she talked to him some time with her eyes quite open. Pt. plunge bath o. mane.

19th.—She cannot move her legs at all. If taken out of bed, held up, and told to walk, she cries bitterly.

26th.—No attempt at walking; uses her eyes well when alone, but covers them when any official comes to her.

29th.—Is certainly improved in general condition, and is more active; wriggles about on the floor on her hind-quarters, and in this fashion moves from one ward to another. Likes to be with the children in their ward. Phosphori gr. ʒss. ter die.

June 7.—Sitting up in a chair facing the window with her

eyes wide open; does not keep them shut now. Makes a little attempt at using her legs.

9th.—Not the least photophobia now; when lifted up and brought to the side of a table, she laid hold of it, and with much ado, resting her trunk upon its edge, she got round one corner and a little way along the side. Her legs have yet no power at all to support her, and she can move them very little when lying on a bed.

12th.—The other children say that she can stand occasionally. Laid on a bed, she can move her legs a little: at first tickling her soles produces no movement, but after a time she draws her foot up.

21st.—Same. Omit the valerian mixture. Strychniæ gr. ʒss., acidi nitrici ℥j., aq. ʒss., ter die.

25th.—I found her just now perched up with another girl on the ledge of the window recess about four feet and a half from the floor. She had climbed up by getting on the coal-box and drawing herself up with her arms, her hands grasping the edge of the window recess, and I saw her descend in a like way. Her legs still have no power to support her below the knees, but she is able to use her thighs, and scrambles about on the floor actively enough. She repeated this feat of climbing the next day before the class.

July 3.—Is beginning to walk with the aid of a chair.

7th.—Improves slowly. Strychniæ gr. ʒss., liq. ferri per-nitratis ℥x., acid. nitr. dil. ℥v., aq. ʒj., ter die.

10th.—Is able now to walk round the ward without any aid. Looks thin still.

14th.—Walks about now quite well, and rides the rocking-horse.

On first seeing this case, before I had any detailed information as to the mode in which the malady had commenced, I took the view that it was a choreoid disorder. The patient's age, sex, and constitution pointed in this direction, and the symptoms—hyperæsthesia and paralysis—were quite confirmative, for these morbid states of nervous tissue are just what we find in chorea, only they co-exist in the same nervous centres, and are not, as in our patient, dissevered. Hyperexcitability is not rarely manifested in chorea in other centres beside the motor. A girl, aged ten, was recently under my care with rather severe jactitations, in whom occasionally fits of violent causeless screaming occurred. Here some emotional or intellectual centres of the cerebral cortex must have been involved; and, if these, then we can well understand that others may be affected similarly. What is delirium in the intellectual centres would be photophobia in the visual. The hyperexcitability of the motor centres in chorea is usually far the most salient feature of the malady; but debility—a degree, in fact, of paralysis—is almost invariably present also, and sometimes, as in a case I lately recorded (Woollard, *Practitioner*, 1879, i. 250), quite predominates to the exclusion of the spasm. So, seeing these two features well marked, though in different localities, and having regard to the general features of the case, I opined and expressed the opinion that the disease was a sort of modified chorea. I did not know until some weeks later that the child had been noticed to be actually choreic some months previous to her admission. The fact, therefore, was that the symptoms we observed were rather the sequelæ of chorea than actually part of the full-blown disease. No doubt they were promoted also by the exhaustion of the typhoid.

But whatever may be the exact nosological position of the symptoms, there they were, and we had to deal with them. Now, there could not be much doubt with regard to the sensory disorder, that it was essentially a neurosis. It was just the same condition which V. Gräfe used to cure, temporarily, at any rate, by ducking the child's head under water, a proceeding which, of course, could not remove a retinitis or any other *itis*. No phlyctenulæ were present, so that irritation of sensory filaments of the fifth pair could not have been the motor of the disorder. Under a tonic régime the photophobia yielded completely in about six weeks. It was noted by several as a suspicious circumstance that she could use her eyes without much difficulty when she was quiet and unobserved, but hid them from the light when a medical visit was at hand. I believe this was no proof of deception, any more than the common occurrence of increased jactitation which choreic patients so often exhibit at the time of the physician's visit. We refer the latter unhesitatingly to mental or emotional flutter: then

why not the increase of photophobia also? The paraplegia was as complete as well could be in the limbs, but did not involve the bowel or bladder. In the case of W., before referred to, there was entire loss of sphincter control for a considerable time. Yet the case was altogether similar, and we must therefore conclude that exemption of the cloacæ from paralysis does not by any means constitute an absolute distinction between paraplegia dependent on structural lesion, and that which we distinguish as functional. Indeed, such paralysis is undoubtedly absent in some cases of well-marked spinal cord lesion. While the paralysis was at its height the electric contractility in the limbs was very defective. I look upon this condition in many cases as more hopeful than that where the muscles react well; for in the latter case we are more shut up to the view of centric lesion. You may ask whether we should not have employed faradisation throughout as a curative means; and in fact it was ordered, and was administered for some time, but it caused much suffering, and did not procure any marked improvement, and the internal remedies addressed to the nervous system seemed much more important, so that it was not, I believe, very diligently used. During the recovery we observed that the improvement spread downwards from the centres, just in the same way as it does not unfrequently in hemiplegia from intra-cranial lesion. Power returned in the thighs ten days or so before it was regained in the legs. This seems to imply that when the amount of force generated in the centres is small, it is transmitted with more difficulty through a long axis-cylinder than through a short one. Similarly, I have often remarked that, in making a considerable muscular effort, one often fails in the first few attempts, but succeeds in the later, when the nerve-currents seem to flow more freely. *A priori*, one would have thought that the first efforts would have been most effective when the motor-cells were most charged with force-generating material.

That the paraplegia was a neurosis, just as much as the photophobia, I cannot doubt. It is impossible that such treatment as that which was employed could have restored motor centres damaged by inflammation, hæmorrhage, embolic softening, or tumour. Neither would it have availed against paralysis of inhibitory origin, or of toxic. There remains only the paralysis of primary failure of nutrition in the motor nerve centres. In this, such treatment might be rationally expected to be beneficial, and so it proved. I will not detain you with arguments to establish that such paralysis is a real and not very rare occurrence, as I adduced several on a recent occasion, but will only ask you not to forget this view, which is yet scarce accepted in text-books, but which, I venture to assure you, will often prove serviceable to you in your practice, as it did to me on this occasion. Supposing I had not known it, or had not believed it, could I have treated the patient with a definite steady intent? Should I not rather have been utterly perplexed?

The co-existence of the hyperæsthesia and the paralysis is another point to which I would direct your attention. These disorders differ from one another, not only in one being sensory and the other motor, but in the circumstance that the excitability of the nerve-tissue is increased in one, and abolished in the other. Yet they were both generated in the same state of system, and both removed by the same remedies, so that at bottom there was more likeness between them than unlikeness. In fact, both were palsies, but in one the faculty of generating force was lost, and in the other the faculty of moderating the effect of impressions, or the force they liberated. So that it is no matter of surprise that they or their analogues are quite commonly met with in the same cases.

Finally, I would ask you to shun that common "refuge for the destitute," viz., the tendency to refer all obscure or unusual nerve-troubles to *hysteria*, implying thereby defect of will, unreality of morbid action. Whisperings to this effect were heard now and then as we made our visits, and yet I believe most entirely that our patient was free from the least taint of the kind. As soon as the child could face the light comfortably, she did so; as soon as she could scramble about, she locomoted in the best fashion she could; as soon as she could walk, she did so gladly, and no reluctance was manifested to testify her amendment. No fresh infirmity came up to take the place of those we had exorcised, such as the *malade imaginaire* so readily conjures up. The child had the natural love of play proper to her age,

and enjoyed the society of her little co-patients. Would any hysteric have clambered up with half-paralytic legs on to a high window-sill, and then called the doctor to witness her achievement? I trow not. The dread of falling she showed when attempts were made to set her on her feet before she had regained power, was perfectly natural, and accorded with her long delay to earn her promised sixpence by walking round the ward. When you detect in a patient simulation, falsehood, inveterate selfishness, incapacity to hear the call of duty, morbid craving for attention, and love of parading ailments, think of hysteria; but while these or the like are absent, be charitable and think no evil. Hysteria is a mental disease, not a bodily. Functional paresis is the reverse.

CLINICAL LECTURES ON DISEASES OF THE HEART IN CHILDHOOD.

Delivered at the London Hospital.

By ARTHUR ERNEST SANSOM, M.D. Lond., F.R.C.P.,
Assistant-Physician to the London Hospital, and Senior Physician to the
North-Eastern Hospital for Children.

LECTURE II. HEART DISEASES ASSOCIATED WITH RHEUMATISM.

HAVING excluded the cases of congenital affection, I propose now to consider the remainder from the point of view of the probable proximate causation of the diseased conditions. The total number is 116. Of these, fifty-six showed decided signs of *rheumatism*—by this term pain and swelling of the joints being understood. Two also manifested what might be interpreted as non-articular rheumatic phenomena (eruptions), but the consideration of these is deferred until a subsequent lecture. In thirteen cases there appeared to be a direct relation to *scarlatina*, and in six a no less direct alliance with *measles*, whilst in forty-one cases there was no record of association with conditions of disease. I propose to examine these cases in groups, with the purpose of endeavouring to ascertain whether there are any well-marked clinical differences in the forms of heart-disease associated with differences of causation.

I. *Cases distinctly associated with Rheumatism.*—The percentage of my cases betraying rheumatic phenomena is 48·2 or 50, accordingly as we include those which showed non-articular symptoms or otherwise. This is lower than the proportion indicated by the statistics of Dr. West,^(a) which give 60·1, but, as I shall show, it is very difficult to draw the line of definition of rheumatic phenomena when these are very slightly pronounced. I think we may conclude roughly that rather more than half the cases of heart-disease in children are distinctly connected with rheumatism. Rheumatism in the child presents certain peculiarities. The typical form of rheumatic fever is much less common than in adult life. In this hospital, out of 574 cases of acute rheumatism admitted during 1875-76-77, only sixty-one occurred in patients under the age of sixteen. This experience agrees pretty closely with that obtained at St. Bartholomew's Hospital as quoted by Dr. West, the figures giving a percentage of 10·6 in the one case and 10·2 in the other. From such data we may conclude either that acute rheumatism is proportionately less common in childhood than in adult life, or else that its manifestations in early life are disproportionately slight. In support of the view that the latter conclusion is nearer the truth, we may cite our experience of the high significance in a child of the slightest manifestation of rheumatism. We may now inquire as to the rise and progress of heart-disease in the rheumatism of childhood—do these phenomena differ from those which occur under like circumstances in the adult? In the latter we are accustomed to see a certain defined relation for the most part with the articular symptoms. We watch the signs of development of the heart-disease during the period of the pyrexia, or whilst the articular pain and swelling are manifest. In the child this relation is much less close, whilst, on the other hand, the chances of implication of the heart are much greater. In adults, our statistics tell us, about one-tenth of the cases of acute and subacute rheumatism develop heart-disease in the course of their malady

(a) "Diseases of Infancy and Childhood," sixth edition, page 528.

whilst in hospital, though about half the cases are victims of heart-disease; the latter estimate including, of course, those in whom the cardiac affection has been previously acquired. In childhood the conditions are different in a way that may be thus roughly expressed: (a) a case admitted for rheumatic fever—i.e., with pronounced pain and swelling of the joints—rarely escapes without some implication of the heart; (b) it is very common for a child to be admitted on account of some respiratory trouble, and then a cardiac affection to be discovered together with slight symptoms in the joints which had been previously unnoticed. There is, then, in my opinion, as regards children, a relation between the severity of an attack of rheumatism and the development of heart-disease, which does not obtain in the cases of adults. A severe form of rheumatism in the former tends in much greater degree to be associated with cardiac complication. But with this exception the alliance with articular phenomena is much less close than in the adult. In the child, heart-disease may be the immediate forerunner of an attack of acute rheumatism, may occur at any period of the manifestation of articular phenomena, may arise when these are scarcely appreciable, and may become evident at any period after the subsidence of the rheumatism. Of my cases I find that only eight showed the development of heart-disease coincidently with the articular phenomena, thus following the usual rule in adult life; only seven manifested its occurrence within four weeks; whilst in the others the first signs of cardiac mischief were discovered at periods varying from one month to several years. As with the joint symptoms so with the pyrexia, the relation with the development of heart-disease is by no means intimate. Wunderlich remarks that pericarditis and endocarditis can run their course without any elevation of temperature, and that in many cases they have no effect at all on the course of the fever with which they are associated. "They sometimes occur without elevating the temperature even the tenth of a degree." (b) These conclusions are identical with my own. Such considerations teach the paramount duty of a careful exploration of the heart in a child. The observations of Dr. West on this point are of the highest importance: "Every threatening of rheumatism, therefore, is to be watched with the most anxious solicitude in the young subject, since so serious a complication as disease of the heart may accompany extremely slight general symptoms. Nor must auscultation be neglected in cases of what may seem to be simple fever, since rheumatic inflammation may attack the heart before any other signs of rheumatism have manifested themselves." (c) I will even go further than this, and advise you to examine the heart in every case that comes before you, for I shall show in the future that diseases of the heart having the clinical characters of the rheumatic forms may occur with absolutely no symptoms to betray their rise and progress.

Now as regards the clinical forms of heart-disease manifested in this section. *Pericarditis* occurred in 38 per cent. of the cases of acute rheumatism, in 35 per cent. of all that showed rheumatic phenomena. As to the rise and progress of the disease, I could recognise two distinct types: (a) wherein the patients betrayed the severe constitutional signs described as usually associated with the disease; and (b) wherein the signs of gravity were wholly in abeyance. As an instance of type (a) I may mention the case of Wm. John G., aged five years and nine months, lately a patient in this hospital. The child had an attack of acute rheumatism, followed by a protracted subacute stage. He also manifested in marked degree the acid sweatings characteristic of the disease, and some unusual rheumatic phenomena, notably *erythema marginatum*, and the production of fibrous nodules scattered over the body in the situations of bones or ligaments. He suffered severely from orthopnoea and from præcordial pain. A to-and-fro sound was long existent over the base of the heart, and over the auricle this had an unmistakable triple rhythm—the presystolic, auricular rub being distinct. The dyspnoea was very urgent, and the action of the heart irregular, especially in point of frequency. The pulsations were greatly accelerated when the child with any suddenness sat up in bed. He was kept as quiet as possible, propped up with pillows. Together with the pericarditis there was evidence of advancing endocarditis. A systolic

murmur was heard at the apex, conducted to the axilla; and later on a diastolic murmur was heard at the base. There was mitral regurgitation, and subsequently involvement of the aortic valves inducing aortic regurgitation. The physical signs also indicated hypertrophy and dilatation of the heart, and the pulmonary conditions indicated broncho-pneumonia of the bases. The child died after much suffering. At the autopsy we found extensive pericardial and pleuro-pericardial adhesions, dilatation and hypertrophy of the left ventricle, vegetations on the mitral valve (which was incompetent), vegetations on the aortic valves, and thickening of the endocardium of the right ventricle about the tricuspid valves. There was much engorgement of the bases of the lungs, and embolic infarcts were found in the spleen.

In a considerable number of the cases, therefore, the advent of pericarditis is indicated by general signs of great gravity. There is much dyspnoea; præcordial oppression is marked; the action of the heart is irregular, and it is disturbed by even slight changes of posture. As Dr. West has pointed out, an important sign is furnished by the occurrence of orthopnoea; the little patients require to be propped up by pillows, and resist any attempt to place them in the recumbent position.

But in certain cases of pericarditis in children these objective signs of gravity were entirely absent. We may call these instances of type (b). To take, as an example, James H., aged eleven years and a half. He had suffered rheumatic fever, with no manifestation of heart symptoms in its course; but during convalescence, with no evidence of distress whatever, the boy going to school all the while, pericarditis and endocarditis developed and progressed. When he came as an out-patient, two months after his attack of acute rheumatism, he had no symptoms of cardiac disturbance, but a marked to-and-fro friction sound was manifest over the apex. Subsequently a musical systolic murmur was heard at the apex. This passed away, and afterwards systolic and diastolic (aortic) murmurs became evident at the base. In this case most serious pericarditis and endocarditis with production of valvular incompetency progressed with no objective signs to show their presence. The previous acute rheumatism suggested the necessity of careful exploration of the heart-region, and indeed some signs of subacute rheumatism co-existed; but I shall show that similar cardiac disease may occur without even the manifestation of any articular phenomena.

In another case, under my late colleague Dr. Woodman, a ruddy boy of ten years and a half fell out of health and became anæmic, but complained only of pains in his legs, with no more obvious signs of rheumatism. His lips looked blue at times, but there was no apparent embarrassment of respiration. He had pericarditis with marked friction sound; but the notes expressly state, "No dyspnoea; sleeps well; appetite good."

As to the course and the results of pericarditis—(a) The effusion may be absorbed and health may be perfectly recovered. This happens only in a small minority of the cases. (b) Recovery may take place, but complications may persist. (c) Death may occur during the pericarditis. It is seldom that pericarditis in this section of cases is uncomplicated: my records give only three cases. The most frequent complication is endocarditis; in one case there was dilatation of the left ventricle without evidence of implication of the valves. In a large majority of the cases broncho-pneumonia occurs, and in a few also pleuritis. The cases that were fatal showed in three instances at the autopsies extensive pericardial adhesions. These adhesions I consider to constitute a very special danger in young subjects. Another great danger is afforded by the endocardial complications.

A COMMON-SENSE VIEW OF A QUESTION OF THE DAY.
—A lady having at the Suffolk Medical Society, Boston, made some remarks on the use of alcohol by physicians as leading in certain cases to intemperance, Dr. H. Bowditch observed that the whole subject of intemperance had been brought before the notice of the profession, and that great caution should be used when there is hereditary predisposition to intemperance; also in prescribing whisky or liquors in chronic cases which do not remain under observation. But it seemed to him absurd to cut off any remedy entirely because in some instances it did harm.—*Boston Med. Jour.*

(b) "Medical Thermometry" (Sydenham Society's translation), pages 391 and 399.

(c) "Diseases of Infancy and Childhood," sixth edition, page 529.

ORIGINAL COMMUNICATIONS.

PRACTICAL NOTES ON
THE ORDINARY DISEASES OF INDIA,
ESPECIALLY THOSE PREVALENT IN BENGAL.

By Dr. CHEVERS.

(Continued from page 121.)

THE True Enteric Fever of Jenner is a disease of considerable antiquity in Europe. In 1576, Walter Devereux, Earl of Essex, Lord Deputy of Ireland, father of Elizabeth's favourite, died in Dublin of a common malady then known as the "Irish Disease," and afterwards called "Epidemic Dysentery," the modern Irish history of which has been given by Copland. This was manifestly a type of Enteric Fever. Camp and Ship Dysentery appear to have been the same disease, *plus* Scorbutus.

There is nothing to show that the Dothinentérie(a)—of the separate identity of which the researches of Broussais, Petit, Bretonneau, and Andral gave evidence—was new to France when they investigated it; or that what Richard Bright called "Typhus with Bowel Complication" was of recent development in England, although it was long thought that fever attended with grave lesions in the follicles of the small intestine was more prevalent in France than in England; and Bright, in giving his first description of True Enteric Fever, in 1827,(b) appears to have observed little or nothing of this disease before it came under his notice in the last quarter of the year 1826. Ten years later, when I attended his *clinique*, he was perfectly familiar with it, regarding it as a complication of Typhus.

The questions, *Is True Enteric Fever of old standing or of recent origin in India?* and *To what extent does it now prevail in that country?* are of great importance to our professional brethren in the East.

I may first notice that Dr. Brinsley Nicholson has lately stated,(c) as the result of ten years' experience at the Cape of Good Hope and Natal, that he never saw or heard of a case of True Typhoid. He thus confirms the observation of Stewart Henderson, Apothecary to his Majesty's Forces at the Cape, who, writing in 1798,(d) remarked that the Dutch inhabitants are exempt from many of those endemic and epidemic diseases which rage in other parts of the world. He added—"The Small-Pox, Measles, Remittent and Intermittent Fever, and that most fatal of all diseases—the Jail, Hospital, or Ship Fever—which destroys so many of the human species in every part of Europe, are never generated here."

These facts tend to show that, if Enteric Fever has travelled from Europe to India, it did not take the Cape route.

Whether Enteric Fever has long existed in Bengal, or whether it originated in my own time, is a question still open to debate. The writers on the Diseases of India who preceded Annesley and Twining were, for the most part, ships' surgeons, who could only describe those maladies which came under their notice while they remained in port; and they might readily have overlooked the existence of a disease which, like True Enteric Fever, is decidedly rare in India. Still, the works of these authors contain some noteworthy statements regarding Indian Fevers with Bowel Complication. Thus, Dr. John Clark has given(e) an interesting abstract of the narratives of Fevers which occurred in the East India Company's ships from 1770 to 1785. (In the following quotations the italics are mine.) In the *Triton*, after leaving Bengal, there occurred so much fever that the sick-list was increased to sixty when they arrived at the Cape of Good Hope. "In the beginning of this fever," the surgeon says, "inflammatory symptoms chiefly prevailed,

frequently with bilious vomiting; but, in its progress, it changed into a typhus, or was succeeded by a flux." Remittent fever was very prevalent and fatal amongst the ships at Bengal after the rainy season of 1783. "After the Remittent, an Ague was very frequent, in the middle of October, which usually degenerated into a continued fever or dysentery, and in those forms proved mortal." In 1784, seven ships stationed at Kedgeriee (at the mouth of the Calcutta River) lost, at that place, 170 men. "The diseases which prevailed were remittents and intermittents and the dysentery, all generally attended with diseased viscera. A few died of remittents, but the principal number of dysentery, which generally attacked those recovering from fevers." Mr. Lyons has argued, I think not conclusively,(f) that Charles Curtis, Surgeon of the *Medea* Frigate, described(g) the True Enteric of India under the designation of "Bilious Fever and Flux." In a careful analysis of Sir James Annesley's descriptions of the remittent and continued fevers of the Madras Presidency, contained in his great work, published in 1828, Mr. Lyons cites the following passage from Annesley's remarks on "the organic changes in inter-tropical fevers," as evidence that True Enteric Fever then occurred in that part of India:—"Marks of disease of the small and large intestines are generally confined to their internal tunics. The duodenum, jejunum, and ileum—especially the duodenum and termination of the ileum—very frequently are diseased in their mucous surface, which is inflamed in patches, sometimes covered with a mucopurulent secretion, and studded with small ulcerations, particularly the termination of the ileum. Occasionally the mucous surface is of a brick-red or purplish shade of colour, apparently ecchymosed, and covered with a bloody sanies, and readily detached from the subjacent textures. In several cases the ulcerations, which sometimes are large and far apart, at other times small and agglomerated—especially the former—have nearly penetrated the tunics of the intestines; and in a very few cases we have observed this occurrence actually to have supervened, the contents of the bowels being partly effused into the peritoneal cavity, and having produced peritonitis" (vol. ii., page 457).

Twining, writing on the fevers of Bengal in 1835, must have been well acquainted with True Enteric Fever, as the Typhus with Bowel Complication of English writers or the Dothinentérie of Bretonneau, who had described it ten years previously, in 1825. Still he asserts, "Typhus is rare in India."(h) But he says nothing more regarding this rare Indian Typhus until further on, in speaking of what he terms the Congestive Fever of the Cold Season (under which denomination he appears to have placed several distinct forms of disease), he observes,(i) "In a few rare instances" (of a continued fever closely resembling the True Enteric) "where patients have died after a protracted fever of this sort, superficial ulcerations of the mucous membrane of the small intestines were found. I will not venture to assert that the ulcerations above alluded to ought to be considered as causes of the fever of the cold season; and my reason for not deeming the pathological condition a primary affection existing at an early period of the disease, is that active purgatives may be repeated daily for a long time at the commencement of this fever without producing irritation. In fact, they almost always afford relief, whereas we do sometimes find that active purgatives produce a degree of irritation at a late period, and when a fatal termination takes place afterwards, ulcerations of the small intestines are found in these subjects." I may interrupt this quotation by noticing that, at this point, Richard Bright would have remarked, as he has often done when I was his student, "When you admit a recent case of Typhus, there is generally constipation, and it is needful that you should open the bowels, but in this disease they are irritable, and therefore you must give only two drachms of castor oil or you will convert this case of Typhus into one of Typhus with Bowel Complication" (by which he meant the True Enteric of Jenner), "which is a far more serious condition." Twining continues—"If more extended observations should prove that these ulcerations of the small intestine exist

(a) The spelling Dothientérie is of recent adoption.

(b) "Cases illustrative of the Morbid Appearances which occasionally take place in the Intestines during the Progress of Fever," *Reports of Medical Cases*, 1827, page 178.(c) *Medical Times and Gazette*, July 5, 1879, page 5.

(d) "Inquiry into the Causes which produce Disease among the Troops at the Cape of Good Hope, with a view of discovering the Most Effectual Means of Prevention."

(e) "Observations on the Diseases which prevail in Long Voyages to Hot Countries; particularly on those in the East Indies, etc." 1792. Vol. ii., page 464.

(f) *Indian Annals of Medical Science*, No. 28, page 254.

(g) "An Account of the Diseases of India, as they appeared in the English Fleet and the Naval Hospital at Madras in 1782-3." London. 1807.

(h) "Clinical Illustrations of the More Important Diseases of Bengal; with the Result of an Inquiry into their Pathology and Treatment." Second edition, vol. ii., page 201.

(i) *Idem*, page 353.

generally in the cases which terminate fatally, and that such a pathological condition is rarely met with in the inspection of subjects that have died of other descriptions of fever in Bengal, I should be inclined to adopt the opinion of Dr. Boot, that a peculiarity of the disease would be thus ascertained, which, combined with the exclusive prevalence of this fever in the cold season, its insidious invasion, obscure symptoms, slow progress, and protracted course, attended with prolonged stupor and delirium, and the organic changes at its latter stages, might establish a resemblance to some modifications of European Typhus" (Yes, Dothientérie! Bretonneau would have said; Yes, Typhus with Bowel Complication! Richard Bright would have said; Yes, True Enteric Fever! Jenner would have said—each of these four authorities calling the disease by the name by which he had distinguished it); "although," Twining adds, "the resemblance be not strictly correct in all its details."

After this it can scarcely be doubted that Twining met with True Enteric Fever in Bengal. This interesting fact was recognised by the clear discriminative judgment of Dr. Edward Goodeve, when he wrote upon this disease, twenty-four years later, in 1859.

From this time I do not find any very definite observations upon the occurrence of Enteric Fever in India until my friend Mr. Scriven wrote upon it in 1854,(k) giving notes of three cases of True Enteric Fever which he observed in Burmah in 1853. Mr. Scriven has given a more extended commentary upon this disease, as occurring in India, in the *Indian Annals of Medical Science*.(l) To Mr. Scriven is undoubtedly due the credit of first showing that the Enteric Fever of India is the True Enteric of Jenner. Dr. Joseph Ewart has given an important narrative of cases of this disease as observed in 1855 in native prisoners in the Ajmere Jail.(m) Dr. Edward Goodeve has admirably described the disease as he observed it in Calcutta in 1858.(n) He remarked that he felt confident that he had seen in the Bengal Presidency many cases of this disease. He was nearly equally confident that he had met with it among natives several times. When his lecture was delivered he had not had opportunity of making any post-mortem examinations.

Several other valuable contributions to the history of True Enteric Fever in India have subsequently appeared, among which special notice is due to papers by Mr. Lyons,(o) and by Mr. J. E. Moffatt,(p) and to several interesting papers and reports by Massey, O'Brien, Cleghorn, Greene, and others, which have recently appeared in the *Indian Medical Gazette*, October to February, 1878-79. We have accounts of the disease as occurring in the *Bombay Presidency*—by Mr. Hanbury in H.M.'s 33rd Regiment, at Deesa, in 1859,(q) and in Bombay by Dr. Peet.(r) In the *Madras Presidency*—by Mr. Cornish,(s) by Mr. Ranking,(t) and by my friend Dr. C. A. Gordon, in his "Report on Typhoid or Enteric Fever in relation to British Troops in the Madras Command," issued by the Madras Government in 1878.

Until the year 1870 Enteric Fever had not a place in the Statistical Returns of the diseases of British troops serving in India. Its admission to the Returns is due to the publication of a paper attached as an appendix to the Report of the Sanitary Commissioner with the Government of India on Age and Length of Service as affecting the sickness, mortality, and invaliding of the European Army, by my friend Dr. Bryden, Statistical Officer with the Sanitary Commissioner. He argued that the disease is, and has long been, nearly everywhere prevalent among European troops in India, young soldiers being so especially liable to it that he believes it to be the principal cause of mortality among them. He attributes it to the direct and indirect influence of heat upon the young and unacclimatised. He subsequently showed that the disease has been found among native soldiers and prisoners in jail. Previous to 1870, any

cases of this disease which may have occurred in the European Army must have been placed under the heading of Remittent or Continued Fever. It is shown by the author of an able review of Gordon's Report,(u) that a distinct and independent place has been assigned to Enteric Fever in the Statistical Tables since 1871; and, during the six years 1871-76, 1311 cases and 571 deaths(v) have been registered under this designation in the Army of India, whose strength has averaged 58,670 annually. During the same six years, 57 cases and 31 deaths have been registered among women—averaging in annual strength 6445.

Notwithstanding the apparent clearness of the above data, the question, Is Enteric Fever at present a common or a rare disease in India? is—ready as its solution ought to be—certainly one of the most perplexing as it assuredly is one of the most practically momentous questions with which medical men in that country have to cope. It being a plain fact that if we, encountering a case of Paludal Remittent with bowel complication, insist upon calling it True Enteric Fever, and treat it as such, withholding that free and steady use of quinine which is the only remedy, that case will almost inevitably end in death.

Dr. Bryden assuredly did a good and very needful work in giving Enteric Fever a place in the Register of Cases; but, after admitting this, I must join Dr. Gordon and confess my unwillingness to admit that we have proof sufficient to convince us that 571 European soldiers of the Indian Army died in six years of True Enteric Fever.

If this disease has ever been common in India, it is a very extraordinary fact that several of our best and most careful observers should have met with so little of it, although they sought it diligently by the light of home experience. I have already given the results of Twining's observation. When Dr. Morehead published the first edition of his treatise, in 1856, he believed that this malady did not occur in India, although the type of disease in some of the cases which he recorded closely resembled that of Enteric Fever—a fact which he clearly observed when, after describing Case 32, he added, "While retaining this case in its original position, I must admit that recent inquiry may suggest that it was true typhoid, not adynamic remittent." Indeed, in 1843, six years before Sir William Jenner established the distinction between Enteric and Typhus Fever, Dr. Morehead, in his notes on the Malarious Fevers of the European General Hospital at Bombay,(w) drew attention to an occasional anatomical relation between some cases of Remittent Fever and some forms of European Continued Fever. His words are: "A state of ulceration of the glands of Peyer at the end of the ileum also occurs in cases of typhoid remittent fever with gastro-enteric symptoms, just as it occurs in European continued fever with typhoid symptoms and similar local complication." In the second edition of his work, and in his remarks upon the admitted existence of Indian enteric fever, in the India Office Sanitary Report for 1868, Dr. Morehead steadily maintains that this malady was long of rare occurrence in India. I have recently been favoured with a most interesting communication from Dr. Morehead, in which he clearly shows that, had enteric fever been common in Bombay during his long experience, he and other Indian observers could not possibly have overlooked it except in a very occasional instance. He can say for himself that he went to India familiar with the fact that there was a form of Continued Fever, described by Louis, with Peyerian disease; and he followed the discovery made by Jenner some fifteen years afterwards, that this is a fever distinct from Typhus. In a prefatory note to No. 5 of the *Bombay Medical and Physical Transactions*, in 1843, he explained that it was his constant practice to examine all the organs, not only those expected to be diseased, and specially to open the entire tract of the intestinal canal. Consequently, he could not have overlooked the lesions characteristic of Enteric Fever had they been of frequent occurrence. Much of this article was written before I received Dr. Morehead's letter. It will be seen that I have held the same argument with regard to Twining and his Indian successors:—few of us would have overlooked cases of a disease with which home practice had made us perfectly familiar.

(k) *Medical Times and Gazette*, January 28, 1854, page 79.

(l) No. 8 for 1857, page 511.

(m) *Indian Annals of Medical Science*, page 64, No. 7 for 1856.

(n) "Clinical Lecture on Typhoid Fever," No. 11, page 141.

(o) "Typhoid Fever discriminated from Remittent Fever, Enteritis, Pulmonary Consumption, Dysentery, and Cholera," *Indian Annals*, No. 28 for 1871, page 241.

(p) *Ibid.*, No. 30 for 1873, page 373.

(q) *Bombay Medical and Physical Transactions*, second series, vol. vii., 1861, page 144.

(r) *Ibid.*, vol. viii.

(s) *Madras Quarterly Journal of Medical Science*, vol. iv., page 65.

(t) *Ibid.*, page 511.

(u) *Indian Medical Gazette*, October 1, 1878.

(v) On these statistics Parkes remarks, at page 635 of the fourth edition of his *Hygiene*, "the immense mortality of enteric fever to cases admitted shows that many cases were only diagnosed after death."

(w) *Transactions of the Bombay Medical and Physical Society*, first series, vol. vi., page 193.

I lately had the advantage of a conversation on this subject with a senior brother officer who has recently completed upwards of thirty years' service, chiefly in the North-West Provinces. Throughout all that time he has made the study of medicine a labour of love. He was Secretary to the first Sanitary Commissioner with the Government of India, and has lately completed his five years' tour as Deputy Surgeon-General of one of the largest circles of inspection. Still it has never occurred to him to meet with a case of Indian Enteric Fever. He tells me that Surgeon-General Irving, who was for many years Civil Surgeon of Allahabad, never met with a case until 1871, when he had to treat two cases in a civilian's family.

My friend Surgeon-Major William Curran is well known as having made Indian fevers a special study. During fifteen years he worked in European military hospitals and large stations in nearly every part of India. Still he only saw one case of True Enteric Fever at the hill station of Murree.

Dr. Joseph Ewart's Descriptive Catalogue of the Pathological Preparations in the Museum of the Medical College, Calcutta, was published in 1865. That noble pathological collection then contained only six preparations illustrative of disease of the follicles of the ileum in True Enteric Fever. Two of these were presented by Mr. Scriven, and one by Dr. Eatwell. The others may have been Dr. Edward Goodeve's. I sent them two or three preparations in the following year (1866). Goodeve's, Eatwell's, and my own preparations, numbering altogether only six or seven, may be taken as representing all the fatal cases of True Enteric Fever which occurred in the physicians' wards, containing sixty beds, of the largest hospital in India, from 1858, when Dr. Goodeve had cases in the Hospital, until 1876, when I ceased to be connected with the institution.

(To be continued.)

ON THE ADMINISTRATION OF ENEMATA IN INTESTINAL OBSTRUCTION.

By GEORGE BROWN, M.R.C.S. Eng., etc.

My chief object in writing this paper is to enforce the opinion that, where the administration of enemata for intestinal obstruction is necessary, it is the duty of the medical attendant to perform the operation himself, instead of entrusting the work to a nurse or to the friends of the patients, as is commonly done. When I speak of "intestinal obstruction" I do not include in that category the numerous cases of loaded rectum which come under our notice. In such a condition it is quite possible that any ancient dame would prove equal to the emergencies of the occasion. But the case is totally different when the seat of obstruction is in the colon, the cæcum, or some part of the small intestines. In such cases I would say that the medical attendant fails in his duty to his patient if he does not himself administer the enema, or at least superintend its administration. Moreover, I believe, were this generally done, life would not unfrequently be saved, and often operative measures be rendered unnecessary. How often are cases reported at the societies and in our journals in which the remark occurs, "An enema was now administered; no effect!" Such enema probably consisted of a few ounces of warm gruel with a little turpentine, which was injected into the rectum by a nurse (who, it is possible, felt disgusted at being called upon to officiate upon the occasion), and which returned immediately without causing an evacuation.

In administering enemata in intestinal obstruction it is not sufficient to give one injection, and, as soon as that returns, to desist. The method I adopt is to fill the intestines, as far as possible, with the fluid used as an injection again and again, even to half a dozen times if necessary, until a satisfactory action of the bowels has been induced. By following this plan I have successfully treated several cases of intestinal obstruction accompanied with symptoms of an alarming character.

A short time ago I was called to a gentleman, eighty-four years of age, whose bowels had not acted for some three or four days, notwithstanding frequent doses of aperient medicines. He was suffering from great pain and extreme exhaustion. On examination I found the rectum empty. The

case being urgent, I at once gave him an enema of warm water and soap. At first I was able to pass into the bowels less than eight ounces of fluid, which returned almost immediately, scarcely discoloured. At the next attempt I was able to pass into the bowels twelve ounces of fluid, which was retained several minutes. When it returned some scybala were passed with it. I then gave a third enema, this time injecting nearly a pint and a half. This had the effect of causing an immediate and copious evacuation, and an hour or so after, the patient had a second motion, with entire relief to the symptoms.

Recently I was called, late at night, during the temporary absence of the medical man in attendance, to see a youth who had been ill for some weeks, the primary disease being, I ascertained, acute peritonitis. The symptoms he was then suffering from were those of stoppage of the bowels. There was intense pain and violent retching and vomiting. I ordered an enema, when the nurse (said to be a trained nurse) replied that she had just administered one, but without result. She had simply injected a few ounces of fluid into the rectum, which was immediately returned without any effect upon the bowels. The nurse procured a plentiful supply of warm water, and I spent nearly an hour with the patient, giving him a succession of enemata, the fluid injected amounting in the aggregate to several quarts. The faecal matter evacuated was not large in quantity, but it was hard and of a very offensive odour. I left him free from pain, with nearly three pints of warm water in his intestines. This passed shortly afterwards, together with a large scybala. This appears to have been a case in which, through peritonitis, the intestines had become matted together, almost entirely preventing the natural vermicular action. To give purgatives in such cases does more harm than good. Enemata given in the manner indicated above is, I believe, the only treatment likely to be attended with benefit. I might multiply cases did space permit, but will only give the following, which strikingly shows the good result of administering repeated copious enemata.

On Sunday evening, December 1, 1878, a young man, twenty-one years of age, a clerk in a merchant's office, called at my surgery for advice. He stated that for some days he had felt very uncomfortable about the stomach and bowels, and, being generally constipated, considered that he wanted a good purging. He therefore took three "antibilious pills" on the Saturday night, and an ounce of castor oil the next morning, which had the effect of sending him to stool, according to his own account (about which doubtless there was some exaggeration), thirty or forty times. But although the bowels had been freely acted upon, the pain and discomfort continued unabated. He now complained of pain and tenderness of bowels, nausea, thirst, inability to take food, and prostration. There was considerable pallor and anxious expression of countenance; dry, furred tongue; temperature 100.4°; pulse 106. On examination, I found the right iliac fossa filled by a tumour, which extended from Poupart's ligament nearly to the anterior superior spine of the ilium, and internally to within an inch and a half of the middle line. It was hard, but very tender to the touch, and distinctly prominent. There was no fluctuation, throbbing, or bruit. As to the nature of the case, I was unable to pronounce a diagnosis, but, seeing that the bowels had been so well relieved, I thought the tumour was due to inflammation of the vermiform appendix and cæcum, with commencing abscess in the cellular tissue about these viscera, or to scrofulous or cancerous enlargement of the lumbar glands. I decided to keep the case under observation, merely ordering rest in bed, liquid diet, fomentations over the painful part, and a saline draught with quarter-grain doses of morphia every three hours. Next morning (December 2) he was in less pain; temperature had fallen to 99°, and pulse to 98. In the evening, however, the temperature rose to 101°, and the pulse to 112. Discontinued the morphia, and ordered a saline mild aperient mixture every four hours, and a chloral draught at bedtime.

December 3.—Had a bad night. Pain and tenderness of bowels unrelieved. Temperature 99.2°; pulse 100. Evening temperature 102.2°; pulse 116. No action of bowels.

4th.—To-day the temperature fell to 99.8°, and the pulse to 100. In other respects there was no marked alteration in the patient's condition. By this time I began to suspect that the tumour was due to impacted faeces in the colon, and only required a patient use of enemata to effect a

cure, but, before carrying out this form of treatment, I consulted my friend Mr. S. Gardner, who, after examining the patient, concurred in this view of the case; and in the afternoon of the same day I began the administration of enemata, giving three injections of warm water and soap within an hour. At the first trial I injected about twelve ounces, which returned scarcely discoloured; on the second occasion I injected about a pint; and on the third attempt I succeeded in injecting more than a pint and a half of fluid, which was retained several minutes. During the administration of this injection, and whilst the fluid was in the intestines, the patient promoted its passage up the canal by friction with the hand over the abdomen, moving the hand from left to right in the course of the colon. We also kneaded the abdomen over the tumour. With the discharge of this enema a quantity of hard scybalæ came away, and a few hours after he had a further copious evacuation, which, he said, was of an extremely foetid odour. At night his temperature was 103° , and pulse 110, but he was comparatively free from pain. The tumour was diminished in size, but was still very obvious.

Next morning (December 5) I administered two enemata in quick succession, which caused other evacuations. The temperature was then normal, and so continued to the end of the illness. At bedtime he took a strong dose of calomel and podophyllin in pill, which acted four times before my morning visit. He was then much better, but I considered it advisable to give two enemata. Nothing but liquid stool passed. Next day he was able to get up and walk about. On the 8th I administered a final enema, as he had arranged to go into the country to his friends on the 9th. He retained a quart of fluid without difficulty, and after kneading the bowels over the right iliac fossa he had another evacuation of scybalæ. When he returned from the country, about a fortnight afterwards, all trace of the tumour had disappeared.

In giving enemata in this manner, only warm water and soap are necessary, as turpentine, etc., are likely to cause action of the bowels before sufficient time for the softening of the fæces has elapsed. Care should be taken also that the water is not too warm, or it will be speedily expelled from the bowels. I generally commence with the water 96° , and increase the temperature gradually in the later injections to 105° or 106° . The enema should be injected slowly and without the use of force.

In all cases of intestinal obstruction I would recommend this mode of treatment to be carefully carried out before operative measures are resorted to.

Colebrooke-row, N.

EARLY INHALATION OF ETHER.—In a note addressed to the *New York Medical Record* for August 2, Dr. Sexton relates the fact that a London aurist, Mr. William Wright, in his work on the Varieties of Deafness, published in 1829, refers to the fact that he had often used the inhalation of ether (placed in a cup or evaporating dish floating in a basin of warm water) for the purpose of allaying the irritation of the meatus which prevented the examination of the ear, and for allaying the cough which is sometimes induced in examination of the ear.

DALTONISM IN SWEDEN.—Dr. Holmgren has published the results of an extensive investigation as to the prevalence of dyschromatopsy in Sweden. He examined (by his coloured worsteds test) 39,284 persons of different ages and occupations, 32,165 being males and 7119 females. Among the 32,165 males there were 250 cases of absolute blindness for red, 376 of absolute blindness for green, and 493 of less decided defect. These 1019 cases of dyschromatopsy constitute about $3\frac{1}{4}$ per cent. Among the 7119 females there were two cases of absolute blindness for red, one for green, and sixteen of less decided defect, making in all nineteen cases or about $\frac{1}{4}$ per cent. So that the affection is much more rare in women than in men, and it attains 2 per cent. of the entire population. It is transmitted hereditarily in certain families, but then often passes over one generation to reappear in the following. It does not exist in all the children of the same parents, especially with regard to girls. When in a family several boys are affected with dyschromatopsy, it usually comes to them on the side of the mother.—*Presse Méd. Belge*, August 31, from *Centralblatt für Augenheil.*

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

CASE OF RHEUMATIC FEVER ASSOCIATED WITH EXTENSIVE SUBCUTANEOUS HÆMORRHAGES AND SLOUGHING OF THE FACE, ETC.

(Under the care of Dr. JOHNSON.)

[For the following notes we are indebted to Mr. F. Willcocks, M.B. Lond., Medical Registrar to the Hospital.]

Emily S., a housemaid, and unmarried, aged nineteen, was admitted into Twining Ward on August 4. Eighteen months since she had bronchitis and pneumonia, and small-pox four years since, but had suffered from no other serious illness. Her work had of late been very arduous.

On the evening of August 1 she complained of slight feverishness and stiffness of the joints, these in the two subsequent days becoming hot, swollen, and painful, and rendering her completely helpless.

On admission she was very anæmic-looking, and complained of severe pain in the joints, with much thirst, and free acid perspiration. The joints of the right arm, both knees and ankles, were swollen and painful. The urine was high-coloured and scanty, the bowels constipated. The temperature in the axilla was 102.8° F., the respirations 40, and the pulse 108, to the minute. A soft systolic bruit was audible at the apex of the heart. The lungs were normal. Sodæ salicylatis gr. xx. was ordered to be given every two hours. Her condition in the following three days presented but slight change; the respirations varied from 32 to 48 per minute, the pulse from 96 to 100, and the temperature gradually fell to 99.6° F. on the evening of August 7. Her nights were restless, and an occasional narcotic was required.

August 8.—Temperature 100.6° to 100.8° ; respirations 32; pulse 96. At the evening visit the right eyelids were observed by the House-Physician, Mr. Dalton, to be swollen. This œdema, which was unaccompanied by any pain with the exception of a slight pricking sensation in the eye, continued to increase, and some hours subsequently (2 a.m.) the eyelids began to assume a dark purple colour. A similar condition followed in the left eyelids, ecchymoses appearing also under both conjunctivæ.

9th.—During the day the ecchymosis rapidly increased, the eyelids being completely closed, much swollen, and of a dark purple colour. The scalp, cheeks, forehead, and lips became œdematous, and purple patches appeared on both forehead and cheeks, those on the former merging into the general boggy discolouration around the eyelids. The patient herself became more restless, but had no pain nor headache, and though conscious when spoken to, appeared to wander at times. The tongue was dry and brown, the mouth contained much viscid mucus, and there was some difficulty in swallowing. The temperature rose from 100.2° in the morning to 103.6° at night; the respirations were 32 per minute, and noisy; the pulse strong and 120 per minute. The salicylate was discontinued, and gallic acid and opium with subcutaneous injections of ergot were given. At 12 p.m. an ecchymosis had appeared on the back of the right hand, and that on the right cheek had extended an inch and a half below the margin of the jaw.

10th.—At 8 a.m. she was conscious and quieter, and the breathing was less laboured, but the ecchymosis on the dorsum of the right hand had increased. At 12 a.m. both right malleoli were tender, and a dark patch, the size of a shilling, had appeared on the outer, the inner being only slightly red. There was also slight discolouration in the course of the right interval saphena vein, but no thrombus could be detected. The hæmorrhagic patches on the forehead had united across the median line; that on the left cheek extended an inch below the jaw, and that on the right somewhat lower and more towards the symphysis. The upper half of the right auricle was also ecchymosed. The nose, lips, and chin were swollen, but not discoloured. The respirations were 36 per minute, and lungs clear, but she complained of dyspnoea when recumbent. The pulse was weak and varied from 114 to 120 per minute, and the

temperature from 101° Fahr. to 102.4° Fahr. The bowels were constipated, with considerable pain in passing the motions. The urine contained no albumen.

11th.—She passed a fair night, and felt stronger, the œdema of the face being less prominent. The respirations were 28; the pulse 102 per minute; and the temperature 100.2° Fahr. There was no extension of the ecchymosis in any part, but bullæ appeared on the hæmorrhagic area on the face, and these on bursting during the day discharged some sanious fluid. The hæmorrhage now extends across the whole of the forehead, being bounded above by the line of the hairy scalp, and below by a line drawn between the two eyes at the root of the nose. Laterally it extends to the margins of the temporal fossæ, which are free from hæmorrhage. It then on both sides passes across the eyelids, involving symmetrically the outer two-thirds of the upper lid, and outer one-third of the lower lid. Next it runs by a narrow line across the posterior part of the prominence of the cheek, to join the large hæmorrhage below the zygoma. This lower area of hæmorrhage is bounded above by the zygoma, and extends outwards to the lobule of the ear, thence passing down along the posterior margin of the ramus to the angle of the jaw. It then runs along under the margin of the body to a point in a line with the outer angle of the orbit, and then, passing up, sends a short prolongation forwards towards the angle of the mouth. It finally extends back, below the prominence of the cheek, to join the above-mentioned line of junction between the upper and lower area of hæmorrhage. The extent of hæmorrhage on the two sides of the face is remarkably symmetrical, but is somewhat larger on the right, where it extends under the jaw almost to the symphysis, and sends a larger prolongation towards the angle of the mouth. The right auricle, in its upper half, is also ecchymosed. The evening temperature was 102.2°; respirations 32; pulse 108 per minute.

12th.—Fresh bullæ appeared on the face, but the ecchymosis had not increased. Both the right forearm and right lower leg were somewhat swollen and reddened, especially at the wrist and ankle. She was conscious, and had severe pain in defæcation, which was relieved by enemata. The temperature varied from 100.2° Fahr. to 102.2° Fahr.; pulse 108 to 90; respirations 32.

13th.—The face and right forearm were less swollen, but the extent of hæmorrhage remained unaltered. Respirations 34; pulse 90; temperature 100.6° to 101.8°.

14th.—The patch on the right side of the forehead and around the right eye had a distinct gangrenous odour, and a pink line of demarcation was visible at the margins of the hæmorrhages, which had become painful. Respirations 28 to 36; pulse 108 to 96; temperature 101.8° to 103.4°.

15th.—She was restless in the night, and continued in the same state during the day, complaining of severe pain in the right side of the thorax, where a faint pleuritic rub was audible on auscultation. The gangrenous odour was now well marked. Temperature 100.8° to 103.4°; respirations 36 to 44; pulse 96 to 108.

16th.—The outer portion of the right lower eyelid sloughed, and the process next extended to the margin of the upper lid. She was unable to see with the right eye, and very imperfectly with the left. The patches on the forehead and upper lids remained boggy, but those on the cheeks, right hand, and right outer malleolus had dried up. She had no pain except in the right side of thorax, and râles were audible all over the right lung, and a questionable pleuritic rub at the right base. The respirations were 44; pulse 120; temperature from 104.6° to 104.2°, and she continued conscious the whole day. A collyrium of zinci sulph. and alum was ordered for the eyes.

17th.—The sloughs on the face and upper eyelids were separating at their edges. She wandered at times during the day, the motions and urine being passed unconsciously. The sputa became more copious and were tinged with blood. Respirations 40 to 54; pulse 135; temperature 103° to 104.8°.

18th.—The sloughs continued to separate rapidly. Respirations 48; pulse 120 to 130; temperature 104.8° to 103°. She was tremulous and wandered, the excreta being passed unconsciously.

19th.—Respirations 44 to 54; pulse 130 to 135; temperature 103° to 99.2°.

20th.—No marked alteration in her condition. Temperature 99.2° to 102.4°; respirations 48; pulse 140.

21st.—The sphacelus on the right cheek being almost separated, was removed, exposing the irregular surface of the facial muscles. The patient's face was ghastly in the extreme. The outer two-thirds of the upper eyelids and the outer one-third of the lower had sloughed away, exposing the eyeballs. The conjunctiva was destroyed, and the corneæ appeared as two white, opaque, prominent sloughs. The forehead was of a uniform black hue; on the right cheek was a raw, irregular surface; on the left a large black slough in process of separation. The respirations varied from 48 to 52, the temperature was 101.4°, the pulse 144, and she continued unconscious and rambling throughout the day.

22nd.—In the morning the respirations were 52 and pulse 144 to the minute; the temperature was 99.8° F. There was loud rattling in the throat, and râles were audible all over the lungs; but she was somewhat more conscious. The breathing, however, became gradually more difficult, and she died in the evening.

Autopsy, twenty hours after Death.—The brain was pale and bloodless, and the sinuses in the skull contained firm clots. Recent pleuritic adhesions existed on both sides, enclosing a small quantity of fluid. The lower lobe of the right lung was solid, and reddish-grey on section—friable, but not granular; much reddish-grey fluid escaping on squeezing the lung. Hæmorrhagic spots of the size of a pin's point were seen on both surfaces of the pericardium. All the cardiac cavities contained firm, partly-decolourised clots, which extended into all the vessels. The interior of the heart was blood-stained. The liver reached to the level of the umbilicus, and weighed eighty-seven ounces, being uniformly enlarged, very friable, and of a mottled colour. The spleen was soft, but contained no infarctions. The kidneys were slightly congested, but otherwise normal. The interior of both eyeballs was destroyed, the corneæ having sloughed and the lens and vitreous humour escaped. No vascular plugging could be detected in connexion with the sloughing parts, and a microscopical examination of the vessels of the choroid and retina gave a negative result.

CHARING-CROSS HOSPITAL.

NOTES ON A CASE OF MORPHŒA.

By ALFRED SANGSTER, M.B., Physician in charge of the Skin Department.)

A. M., female, aged fifty-nine. When eighteen years old she had scarlatina, followed by dropsy; soon afterwards rheumatic fever; fourteen years ago an itching skin disease, probably urticaria from the description given. Menstruation ceased altogether when the patient was fifty-two; at that time she attended St. George's Hospital with a painful lump on her right collar-bone; it disappeared in three months without leaving any trace. Her present trouble commenced three years ago: two patches, similar to those she has now, showed themselves on the skin, one over the lower ribs below and external to the right nipple, the other behind the left shoulder. She was treated at University College Hospital, and remembered that Dr. Fox used to apply the term "bacony" to the feel of the patches. While under treatment, fresh patches developed on the right hip and also on the left side, in a position corresponding pretty closely with that of the patch previously mentioned, below and external to the right nipple. Afterwards, while under private treatment, patches came on the clavicles. Dr. Irvine, whose department at Charing-cross Hospital the patient attended for some time, kindly transferred her, October 7, 1878, when the following notes were made as to the condition of the patches:—Those on the sides, hip, and shoulder simply showed dusky pigmentation; no abnormal condition of the skin could be made out by manipulation. Those over the clavicles were fairly symmetrically placed, excepting that the patch on the right occupied a position rather over the sterno-clavicular articulation. Both areas of affected skin were irregular in outline (about an inch in the longest diameter), and divided up by oblique parallel ridges (raised to the touch) of firm cicatrix-like tissue, between which the skin was congested, but normal in texture. On turning the head, the ridges became widely separated by the stretching of the intervening skin. There was a fresh patch which had appeared quite recently close beneath the apex of the left axilla; in shape it was

irregularly oval, the long diameter vertically placed and measuring about two inches. Its surface looked somewhat shiny and tawny-coloured, but, on close inspection, was seen to have a mottled, cicatricial appearance, similar to the condition described in the patches on the clavicles, but much less marked in degree. To the touch it felt smooth, leathery, and resisting; nor could the affected skin be pinched up from the subjacent structures. Anteriorly, the patch was bounded by a definitely raised, narrow arc (about one-third of an inch broad) of parchment-coloured cicatrix-like tissue. The sound skin in the immediate neighbourhood showed slight inflammatory blush. Sensation was very good over all the patches. The patient remained under observation for about three months. Very little change occurred. For some time she took iodised cod-liver oil, applying also an ointment containing iodide of mercury; but nothing seemed to influence her condition. The points of interest in the case are—1. The successive development of patches extending over a period of three years. It has been thought that morphea is of neurotic origin, and that the patches develop simultaneously as in herpes. 2. The tendency to symmetry in the development of some of the patches. 3. The ridged appearance of the more recent patches was somewhat unusual, and seemed to be due to the mobility of the parts.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 20, 1879.

THE QUALIFIED STUDENT.

IN our Students' Number we confined our attention to the needs of the Medical Student, specially so called, and almost entirely, so far as advice and warning are concerned, to the men of the first and second years, considering that older students must, or ought to, be so well known to, and understood by, the teachers at their respective schools that they might count on receiving from them the special advice and help that would be of much more value and service than any such aid of a general character. And we do not propose to consider the possible troubles of these men now. But to many a man who has chosen our profession for his field of work in life, the most perplexing time of all—that when he feels most doubt and hesitation, and most without guide and help—is when he has completed his

student-career, has passed his examinations, and become a legally qualified practitioner. What is he to do next, and what path of his profession should he follow? For many this is already settled and arranged. Some are destined from the first for the highest departments of practice as physicians or surgeons; some for one of the public services; and others, who are to be general practitioners, are to join, and by-and-by succeed, a father or other relative, or a friend. But many have still their line and place of practice to choose, and have no longer any curriculum or other help to guide them; and to these a few words of advice and warning may be of service.

First, then, all who by any means can command the necessary time should, if possible, enlarge their practical knowledge by visiting other hospitals and schools than their own. To a man aiming at the higher walks of the profession such a step as this is an absolute necessity; but to everyone it is of incalculable service and importance. And it should be taken quickly. A man who has just finished his marked-out school course and taken his qualifications may feel inclined for, and is justly entitled to, a short holiday. But it must be a short one. He must beware, of all things, of being tempted to take a long rest. If he does he will surely find his knowledge growing dim, and his inclination for hard, steady, regular work lessening. He must soon brace himself up and go to work again. Then, if he is to be a physician or surgeon, his line of work for the next few years is plain enough. He has to seek, and work in, hospital and school appointments of various kinds, and thus try to get his feet on the ladder of the staff at some hospital; and it is, as a general rule, most of all desirable and important to gain and keep up a connexion with a large hospital and medical school. In that case he may be helped through his years of waiting by acting as teacher to younger men, when otherwise his career would be terribly up-hill work. The man who chooses the military or naval services has a definite aim towards which to work, and the method of his additional education is marked out for him. It need only be said that, at present, the Indian Medical Service is the only one a man can be advised to choose. The Naval Service is far from popular; and in the British Army Medical Department chaos reigns supreme. Entrance examinations have ceased from lack of candidates, and men have been waiting in vain for a new Medical Warrant, the conditions of which shall be satisfactory in character, and their stability in some way and degree assured.

But, after all, medical education and medical examination are framed in consideration of the interests of the general public; and it is to the young general practitioner that we would now specially address ourselves. The majority of students have some idea of the life that is before them in general practice, for there are few who have not tried their hand at midwifery, surgery, and physic during the holidays; and some have had to support themselves throughout their hospital career as "unqualified assistants." Many of these may indulge in happy dreams of an equally good "connexion" and as assured an income as the principal who has been thankful to be relieved by them for a few weeks of the routine duties of a large and valuable practice. But, however fortunate or sanguine the newly qualified man may be, he will find himself at once surrounded by doubts and difficulties which will try his heart and tax his head more than all his previous study and examinations put together.

To speak rather broadly, the newly qualified man finds four courses open before him, from which he may make his choice. First, he may spend a short time in adding to his practical knowledge of his profession by taking service in a general hospital. The resident appointments in our hospitals are now invariably filled by qualified men—as a

rule, very young in the profession; and a better training could not be desired. The head soon grows cool, the hand dexterous, the ear and eye acute, and the wits ready, under such circumstances. Even beyond surgery, medicine, and midwifery, the "specialties" might be studied by every young practitioner with great advantage—such as lunacy, and the diseases of women and children, of the eye and the skin. But what is true of hospital life in general is doubly true of residence in a lunatic asylum or attendance on "special departments." The time devoted to them must be short. London is stocked with special hospitals, and a willing man with a well-arranged diary could see in a month an incredible amount of the most valuable practice, full of precious suggestions for his future use. The great danger in every instance is lest the earnest, inquiring mind should be led away by these specialties—lest a man should think it absolutely necessary to spend months over eye diseases or orthopædic surgery; or lest the more easy-going fellow, with some taste for literature or one of the fine arts, should settle down for years in a lunatic asylum. All this is loss of precious time to the man who has determined to spend his life in family practice.

The second course that presents itself to the man whom we are addressing is "seeing the world," by taking an appointment on board ship, or going abroad with a rich invalid, or as a volunteer army surgeon in active service. We do not care to say much upon this subject, for it is a line that will be suggested chiefly by a man's own tastes; and it would be useless, as a rule, to try to dissuade him from following it. And, indeed, if the student be very young—too young perhaps to receive a degree in medicine—a year spent in this way may be made of great service to him in every respect. He must beware, however, of temptations which are inseparable from this plan of acquiring a "knowledge of the world." The taste for the free and idle life developed by these wandering habits may grow too strong to be broken in time. Precious years may be lost; professional knowledge melts rapidly away; money is spent as fast as it is made; and a man returns home perhaps impaired in health, and as far from a satisfactory start in life as ever.

Thirdly, the course most frequently chosen by the beginner is to take an assistantship in a general practice, with or without a view to ultimate partnership; and probably in nine cases out of ten this choice is made sooner or later. It is here that a young man stands in need of a friend—a professional friend—who will take personal interest in him and give him advice. For the second time in his professional career the student of medicine has to select a school; and it is no exaggeration to say that the teacher in the new school—that of private practice—may completely re-cast the character with which the student may have left his medical school, and stamp him to a remarkable degree with his own individuality, whether for good or for bad. The personal as well as the professional qualities of a lifetime may thus be settled and determined: consequently this is a step not to be taken without much careful precaution. Fortunately, most students have a sufficient number of friends amongst the staff of their hospital to whom they may go at this critical point of their career. Let them never fail to seek such assistance. It should always be a source of honourable pleasure and pride to teachers in our medical schools to be able thus to be the mentors of their pupils—now become their friends—in guiding them to positions of future usefulness and success. Nothing could possibly conduce more to the prosperity of a school, or to the establishment of a high professional tone within it, than the knowledge that its old students preserve their connexion with it, and that its present teachers have constant opportunities of recommending to them the most industrious and capable

of the freshly qualified men as assistants and partners. Space does not permit us to do more than refer to the question of professional partnership. The system has its advantages and its disadvantages. Many men will be wise to be independent. But if the difficulties of partnership are to be reduced as far as possible, the contract must be entered into in a proper business-like way, and the deed of settlement drawn up by a trustworthy legal agent. All that we have said in respect to partnership arrangements will be equally true with respect to the purchase of a practice, which cannot be too carefully executed by a young man—or better, by a thoroughly business-minded friend acting for him.

Lastly, the beginner may at once enter on practice for himself, and whether he does so at once or not, he will soon begin to appreciate much of the good and of the bad that is the fortune of us all. He must not call us prophets of evil if we tell him that he will have to face many difficulties at first. Difficulties must come, and if they are but fairly and stoutly met, they will be already half overcome. There will be money trials, professional disappointments, occasional blunders to regret, sometimes ingratitude where least expected, and—what is perhaps hardest of all to bear—little do do. But with a well-ordered mind this time of trial will soon pass; and it may be said that to acquire and preserve such a state of mind, the young practitioner must ever keep before him the two great ends of the life that he has chosen: first, the discharge of his professional duties; and secondly, the honourable acquirement of a means of livelihood.

One word more. Professional success is not worthy of the name unless it include professional esteem. Let the young practitioner remember that his first duty is to stand well with his brethren. Medicine is so far from being a perfect science, that the man who knows it best has most sympathy with the failures and mistakes of others. In no other walk of life is forbearance more constantly called for than in practical medicine.

TINEA IMBRICATA.

UNDER this title, Dr. Patrick Manson, of Amoy, China, describes ("Medical Reports of the Imperial Maritime Customs for China," sixteenth issue, 1879), a parasitic, vegetable, skin disease, which he considers to be essentially distinct from *tinea circinata*, or ordinary ringworm of the body, and deserving of recognition as a separate species. It has a peculiar geographical distribution, being limited almost exclusively to the Straits of Malacca or the islands of the Malay Archipelago. When met with elsewhere (*e.g.*) in China it occurs, in the great majority of the cases, in persons who have lived in the Straits Settlements. The only exception to this rule that Dr. Manson has observed in Amoy was "in the person of the relative of a man who had returned from the Straits covered with the disease."

The term "imbricata" given to this affection by Dr. Manson well expresses the peculiar form of desquamation which the fungus excites in the epidermis as it travels through it. Starting from the point of inoculation, the epidermis becomes undermined, and at length detached in long flakes about one-eighth of an inch in breadth, the free edge of the flakes being directed towards the centre or point of inoculation, the convexity remaining firmly attached. Thus "if the hand is passed over the surface from the circumference towards the centre of the circles in which (as will be presently explained) the flakes or scales are arranged the latter are smoothed down; if in the reverse direction, they are raised up, and stand out prominently, defining the wavy outline of the rings (or circles) very distinctly."

The formation of the concentric circles, as proved by

inoculation experiments, is simple enough. As soon as the primary ring "has attained a diameter of about half an inch, a brown patch is again seen to be forming at its centre; this, in its turn, also cracks the young epidermis over it, and a second ring is formed inside the first, which it follows in its extension." This process may go on almost *ad infinitum*, until, in fact, nearly the whole surface of the body is covered; and this is one strong point of difference between *tinea imbricata* and *tinea circinata*. Other differences are the enormous abundance of fungus elements in *tinea imbricata*, and their scantiness in *tinea circinata*. These elements also occupy the Malpighian layer of the epidermis in the former; in the latter their seat is "probably in or on the surface of the vascular corium and its hair follicles." The conidia of the fungus of *tinea imbricata*, of which Dr. Manson gives drawings, are more oval than those of *tinea circinata*, while the mycelium threads are characterised by the absence of numerous swellings and constrictions and other irregularities of outline which exist in the latter. Dr. Manson thinks that *tinea imbricata* specially avoids all hairy parts of the body; but this point we should not be inclined to lay great stress on in adults, seeing that *tinea circinata* in the latter is not much a disease of the hair follicles; and that after puberty, except in a few rare cases of parasitic sycosis, the trichophyton fungus does very little damage to the hair.

There can, as Dr. Manson remarks, be very little doubt that the disease above described is identical with Tokelau ringworm, an affection alluded to in the work "On certain Endemic Skin and other Diseases of India and Hot Climates generally," by the late Dr. Tilbury Fox and Dr. T. Farquhar (page 59), by whom, we should add, the fungus was independently discovered and first figured, though Dr. Manson, as proved by his contribution in Appendix XI. of the same volume (page 246), was undoubtedly aware of its existence, but at that time had failed to get a good specimen of it. His recent paper, of which we have just given an abstract, puts the existence of a new species of vegetable parasitic skin disease beyond doubt. He has shown by inoculation experiments on the same individual that the fungus of *tinea imbricata* always produces *tinea imbricata*, and that of *tinea circinata*, *tinea circinata*; or, as he well expresses it, "The diseases, at any rate, whatever may be the nature of their exciting fungi, possess the most essential quality of distinct species—they breed true." Dr. Manson's paper is illustrated by photographs, which, however, are unfortunately rather deficient in definition.

THE HABITUAL DRUNKARDS ACT.

ABOUT a year ago we supplied the readers of these columns with an analysis and criticism of the Habitual Drunkards Bill, and we had more recently to announce the re-introduction of the Bill and its final passage through both Houses of Parliament. We have hitherto been unable to point out in detail the few points in regard to which the measure in its final form differs from the Bill of 1878. We shall briefly do so now, without entering upon any exhaustive examination of the leading principles of the measure, which continue unaltered since the timely withdrawal of the compulsory clauses last year, and were then fully discussed in these columns, as well as on several other occasions since the first attempts were made by Dalrymple and others to obtain Parliamentary powers towards the reclamation of habitual drunkards. We may, however, be permitted to remark that we all along protested against the high-handed, compulsory character of the earlier legislative proposals, foreseeing that gross abuses were likely to be perpetrated by unscrupulous "friends" of the victims of drink, if the latter became also the victims of a law depriving them of their personal liberty at the

wish or suggestion of interested relatives. The hopelessness of passing a measure interfering so rudely with the liberty of the subject dawned at last upon the minds of its promoters, and no sooner did they conform their demands to the dictates of common sense than they received the ready assistance of all parties in their praiseworthy attempt to ameliorate the condition of the degraded objects of their philanthropic solicitude.

The result has been the enactment of a measure of a tentative and permissive character, which is to be in force for ten years; this limitation being one of the additions made to the Bill of last year. Almost all the other modifications in the statute as compared with the Bill of 1878 are, we are glad to say, on the side of the liberty of the subject. Thus, in the preliminary clauses there is an additional provision to the effect that, instead of one justice of the peace, two or more justices, sitting in petty sessions, shall be necessary to deal with an information or complaint under this Act, or at least some magistrate empowered by law to act alone for more than one justice.

The term "habitual drunkard" has received a modified definition, so as to exclude all cases falling under the jurisdiction of the lunacy laws. In the Act the term designates a person "who, not being amenable to any jurisdiction in lunacy, is notwithstanding, by reason of habitual intemperate drinking of intoxicating liquor, at times dangerous to himself or herself, or to others, or incapable of managing himself or herself, and his or her affairs." A special clause has also been added, prohibiting the granting of licences for drunkards' retreats to any person who is licensed to keep a house for the reception of lunatics.

There is also an addition made to Clause 6, enacting that, "one at least of the persons to whom a licence is granted shall reside in the retreat and be responsible for its management. A duly qualified medical man shall be employed as medical attendant of such retreat, provided that when the name of the licensee shall be on the Medical Register he may himself act as such medical attendant." The absence of any provision for the regular attendance of a medical practitioner at retreats we commented upon very pointedly in our criticism of the Bill last year, and, though the above addition supplies the deficiency, we should have preferred that the medical attendant should, in every case, be an entirely disinterested party.

The clause which regulates the admission of drunkards into retreats has also been amended. As in the Bill of last year, the provision is that the drunkard himself shall make the application for admission, and shall state the period of time (which must not exceed twelve calendar months) during which he wishes to have himself detained in the retreat, but there is in the Act the additional proviso that "such application shall be accompanied by the statutory declaration of two persons to the effect that the applicant is an habitual drunkard within the meaning of this Act." Moreover, the signature of the applicant must be attested by two justices of the peace, instead of by one, and these must also first satisfy themselves that the applicant is an habitual drunkard, and understands fully what his application and reception into a retreat commit him to.

Upon the admission of a drunkard into a retreat he must remain there for the limited time he himself specified in his application, and must of course be subject to the sanctioned rules of the institution. There are the same important provisions as in the Bill of last year for the discharge of suitable cases before the expiration of the time originally proposed at the instance of a justice of the peace upon the request of the licensee of a retreat, or by order of the Home Secretary acting either on the recommendation of an Inspector of

Retreats or at his own discretion. Further, a judge of the High Court of Justice has power to authorise the examination of a person detained in a retreat, and to order his discharge, if advisable, on receipt of the report of such examination.

The rules for the inspection of retreats at least twice a year by a Government inspector and assistant-inspector remain as before; but there is an additional clause enacting that an annual report be presented to Parliament giving statistics and details regarding the various retreats and their inmates. The provisions for granting leave of absence from retreats remain without important modifications.

The clause which we objected to most strongly in the amended and curtailed Bill of 1878 has been allowed to remain unaltered. It is Clause 25 of the Act, and declares that an habitual drunkard who wilfully neglects or wilfully refuses to comply with the rules of a retreat shall be liable, upon summary conviction, to a small fine or a short term of imprisonment. Our objections to this clause—the only compulsory and high-handed provision remaining over from the original Bills, and quite out of keeping with the rest of the Act—we need not repeat, though they are as strong as ever. We must reiterate our opinion, however, that if it be found necessary to enforce this clause, the failure of the whole retreat system, as a system of reclamation, will be plainly demonstrated; for the mere fact of the application of a drunkard for admission into a retreat implies that he has become a slave to habits which he himself finds it impossible to keep in check by the ordinary rules of decency or propriety.

We are glad that there is in the Act what there was not in the Bill of last year—an express provision placing the regulation of the exhibition of stimulants and sedatives to the inmates of retreats in the hands of the medical attendants of these institutions. The clause regulating the apprehension of persons who have escaped from retreats has also been modified so that such fugitives cannot be apprehended without a warrant from a magistrate, and must not be remitted to a retreat unless it shall have been so ordered by a magistrate after an examination of the captive.

These, then, are the important modifications that have been made in this measure since we discussed the curtailed Bill of 1878. As we hinted then, we do not expect all the good from this measure that its promoters look for. Even its benefits must be confined to the well-to-do classes, while it leaves untouched the masses of drunken sots in our poorer communities. Again, in its very object the Act aims at mitigating the evils of drunkenness only in their fully developed forms; it can give no assistance in checking the origin and growth of this national vice. "But," to quote ourselves, "in the presence of a recognised evil so degrading and deplorable, we shall be thankful for any sensible measure, however limited in scope, that is calculated to secure some real amelioration."

THE WEEK.

TOPICS OF THE DAY.

OUR professional brethren abroad are evidently seeking questionable relaxation in attending medical congresses. The annual Congress of German Surgeons met at Eisenach last week. We have not yet received a report of their proceedings, but it is stated that the chief subjects of interest to be dealt with at their meetings were the vaccination and vivisection questions. On the first of these subjects the medical profession in Germany is almost unanimous in its opposition to the clamour of the anti-vaccination party. With regard to vivisection opinion is more divided, but

those who hold with the anti-vivisectionists form but a small minority of the profession. It is expected that at the Eisenach meeting a formal and public expression will be given to the attitude assumed by the medical men of Germany upon these two subjects of popular controversy.

The sixth International Congress of Physicians was formally opened at Amsterdam on the 8th instant, the opening address being delivered by Professor F. C. Donders, of the University of Utrecht. The address dealt with political rather than with medical subjects, but later in the evening the Professor read a paper in French on "Medical Art and Science as they might be said to reflect themselves in the subjects laid before the Congress." The first general meeting of the Congress was held on the following day, more than two hundred medical men from foreign countries having arrived at Amsterdam to take part in the proceedings. Upon this occasion Professor Lister read a paper on "The Aseptic Treatment of Wounds," and Professor Van Genns (Amsterdam University) read another on "The Value of Nägeli's Doctrine for the Interpretation of Facts relative to the Spread of Miasmatic Epidemics." Professor Marey contributed an address on the Circulation of the Blood, in the course of which he ascribed the honour of the discovery not so much to Harvey as to the Italian physicians who preceded him. At a subsequent sitting, Professor O. Recker, of Heidelberg, communicated an elaborate report on his "Experiences in Ophthalmology in relation to the Localisation of Brain Diseases," and Dr. Chervin, of Paris, read an interesting paper on "Stammering, and How to Cure it." The question of food adulteration was introduced by Dr. Seelheim, of Utrecht, and the practical issue, as proposed by Dr. Kraus, of Vienna, was that no other persons should be held responsible by the law than those found in possession of adulterated wares, they being vendors thereof. Professor Rosenstein, of Leiden, chose Bright's Disease as a subject on which to address the gathering, and to this paper Professor Virchow added some highly appreciative remarks. The third general meeting of the Congress was in nearly every one of the nine sections devoted to purely technical subjects. A Dutch physician endeavoured to show that nothing was easier than to test the quality of drinking-water by the colorimetric method; but this view was so vigorously opposed that the whole question was ultimately postponed to the next Congress of Hygiene, to be held at Turin next year. Dr. C. R. Drysdale's Malthusian views also failed to impress his auditors with their correctness or necessity. The Honorary Presidents of the Congress were, for England, Professor Lister and Mr. Ernest Hart.

Last week the Act 42 and 43 Vict., cap. 54, passed in the late sessions, came into force, by which the Metropolitan Asylums Board is empowered to contract with local authorities for the reception and maintenance in hospital of persons suffering from dangerous infectious disorders. The Board is also empowered to provide ambulances for the removals.

One of the latest discoveries of modern science, the telephone, has been utilised for hospital service in the Children's Hospital at Pendlebury, near Manchester. The lady superintendent's room is thus connected with each of the six wards, the kitchen, and the pantry. As the Hospital consists of six pavilions opening into a long corridor, the most distant pavilion being about 120 yards from the administrative block, it is obvious that much time and labour in running to and fro are saved by this convenient method of communication. But the greatest advantage of the arrangement lies in the fact that it is now possible to hold free communication with the fever ward without the slightest risk of conveying infection to other parts of the Hospital. The instruments

were the gift of two charitable gentlemen of Manchester, and, so far as at present tested, have given every satisfaction.

It is stated that the Vestry of the parish of St. George-the-Martyr, in the Borough, have obtained from her Majesty's Commissioners of Prisons a portion of the ground on which the old Queen's Bench Prison recently stood, for the purpose of constructing two large swimming-baths, also hot and cold baths, and an extensive laundry with drying apparatus, etc. The Vestry have been endeavouring for the last two or three years to obtain a site for this purpose, and, as it is proposed to exact only a nominal fee for the accommodation, these baths are likely to prove a great boon to the overcrowded dwellers in the Borough district.

It would scarcely be believed, in the absence of direct proof, that many Acts of Parliament, passed ostensibly for the benefit of the whole of the country, are only put into operation here and there, just as circumstances render them necessary. What the remedy for this may be does not at once appear, but it is certain that if the Act of 1872 for the better protection of infant life had been duly enforced in Cheshire, the present serious charge of baby-farming at Birkenhead might not have become necessary. As it is, a man named John Barnes (who has several *aliases*) and his wife Catherine have been charged with endangering the lives of three children whom they had taken in to care for, but had neglected. Since the commencement of the proceedings, papers have come into the hands of the police, showing that from January last no fewer than ten children have been placed under the care of the prisoners, and of this number only three have been accounted for. One child, a cripple, five years and a half old, had died in their house, and no trace could be found of what had become of the body. The prisoners had met at the Shaftesbury Hotel, Liverpool, a woman who had come from a remote part of the country, and they received from her £10 and a male child of whom no account had been given—the three children found on the prisoners' premises being all girls. The prisoners had been in the habit of advertising for children, and when received, of placing them with other persons to be maintained for a less sum than they themselves had received. As a great number of towns have to be communicated with by the police authorities to obtain the necessary evidence, the Birkenhead magistrate has remanded the prisoners, and expressed an opinion that the Corporation will now take steps to put the Act of 1872 into operation. Meanwhile it is satisfactory to be able to record that the Government have fully appreciated the importance of the case, and have announced their intention of conducting the prosecution of the prisoners.

The increase announced in some of the recent street collections of the Hospital Saturday Fund has been further borne out by the reports received from the West and South-west Suburban, and the West Ham Local Committees, both of which show an increase upon the present occasion, the former amounting to £107 6s. 2d. as against £94 0s. 1d. collected last year, and the latter £30 13s. 2½d. as against £17 13s. 10½d. collected in 1878. According to the last published accounts obtainable, the total sums received this year amount to £1588 12s. as compared with £1370 10s. realised up to a similar period last year.

The City Commission of Sewers last week held its first meeting for the despatch of business since the recess. The Solicitor drew the Court's attention to various alterations effected during last session of Parliament by an Act to amend the previous statute relating to artisans' and labourers' dwellings. The original Act, he pointed out, provided that any improvement scheme should insure the accommodation of at least as many persons of the working class as were

displaced in any locality, by the erection of suitable buildings on the same spot or its vicinity. The amended Act provided that where equally convenient accommodation could be found elsewhere for those displaced, it should not be compulsory to rebuild in the same area. The Act also had useful provisions for assessing the compensation payable under the schemes. Various alterations had also been made in what was known as "Torrens' Act." An owner, upon whom a notice had been served by the local authority to execute any works, or demolish any premises, might now require the authority to purchase the premises within three months. Dr. Saunders, the Medical Officer of Health, reported that during the recess of seven weeks the health of the City had been good, and the usual autumnal diseases few in number and mild in type—due, probably, to the exceptionally low temperature, to great scarcity of fruit, and to increased vigilance in seeking out and dealing with the conditions resulting from zymotic influences and filth.

At the Marylebone Police-court, last week, the Rev. James Mitchell Cox was summoned, by the vaccination officer appointed by the Guardians of Paddington, for neglecting to have his child vaccinated. The defendant said that it was on strictly conscientious principles that he did not comply with the law, and appealed to the magistrate to mitigate the penalty. Mr. Cooke remarked that he had no doubt the defendant believed in his own mind that vaccination was detrimental to his child, but with that he had nothing to do; he had been appointed to administer the law as it stood, and he was bound to do so. If the defendant had an objection to vaccination he should show it in a different way, but the fine could not be lessened; he (the defendant) would therefore have to pay 20s. and the costs.

A Society has recently been formed in London, with Viscount Templeton as president, called the Street Accident and Dangerous Driving Prevention Society. The title of the Society explains the objects it seeks to deal with, and, after communication with Colonel Henderson, the Committee have determined to affix to the lamp-posts at all dangerous crossings the following notice:—"To prevent accidents, drive slowly at this crossing." The Committee have further under their consideration a proposition to appoint mounted officers for the streets to check and pursue offenders. There may be no harm in a private society endeavouring to bring about a diminution in the disgraceful number of accidents which annually occur from reckless and careless driving in the streets of the metropolis; but we fear that it will be found that they lack the necessary authority to render their operations very efficient; and their officers, if acting without police authority and power, will need to exercise much tact and discretion, otherwise they will get into squabbles, and excite hostility instead of doing good.

THE HEALTH OF LONDON.

IN London, in the week ending Saturday, September 13, 2394 births and 1262 deaths were registered. The deaths were 104 below the average numbers registered in the corresponding week of the last ten years. The annual death-rate from all causes, which in the two preceding weeks had been equal to 20·0 and 20·1, declined last week to 18·2. The deaths referred to diarrhoea, which had been 209 and 146 in the two preceding weeks, further declined to 134 last week, but exceeded the corrected weekly average by 5; 97 were infants under one year of age, and 31 of children aged between one and five years of age. The annual death-rate from diarrhoea was 1·9 per 1000 during the week, ranging from 1·6 in the North to 2·4 in the East groups of registration districts. The fatal cases of small-pox, which had

been 7 in each of the two preceding weeks, declined last week to 3. Only 3 new cases of small-pox were admitted to the Metropolitan Asylums Hospitals during the week, against numbers steadily declining from 35 to 13 in the four previous weeks. The deaths referred to diseases of the respiratory organs, which had declined from 181 to 143 in the four preceding weeks, rose again to 163, exceeding the corrected average by 8. Eight cases of suicide were registered. At the Royal Observatory, Greenwich, the duration of registered bright sunshine in the week was 21.8 hours, the sun being above the horizon during 90.4.

HER MAJESTY'S INDIAN MEDICAL SERVICE.

THE following is the list of candidates who were successful at the competitive examination held at Burlington House on August 28 and following days. Thirty-nine candidates competed for seventeen appointments; all were reported qualified.

	Marks.		Marks.
1. J. W. U. Macnamara	2,185	10. J. L. Poynder	1,965
2. F. Burness	2,141	11. C. J. Willis	1,960
3. G. W. S. Dennys	2,130	12. F. C. Reeves	1,925
4. H. O. Stuart	2,085	13. A. R. Campbell,	
5. J. C. Marsden	2,050	M.D.	1,920
6. A. C. Thompson	1,995	14. J. McD. Stewart	1,900
7. J. F. Tuohy, M.D.	1,985	æq. J. Sykes	1,900
8. G. J. Ward	1,975	16. J. Hoey	1,865
9. C. A. Daubeney	1,970	17. A. G. Cotlington	1,860

SANITARY MATTERS IN WHITECHAPEL.

ALTHOUGH many of the metropolitan parishes have taken steps to provide mortuaries for their several districts, it would appear from the quarterly report of Mr. John Liddle (Medical Officer of Health for Whitechapel), for the period ending December last, that up to that date no such building had been provided in his district, notwithstanding the numerous occasions on which he has brought the subject under the notice of the Board of Works for that parish. The urgent need of such a building is unquestionably great, since from the poverty of a large proportion of the population they can rent only a single room in which to take their food, nurse their sick, and coffin their dead. In this single room it is sometimes found that a corpse has been kept for twelve or fourteen days, the delay of burial being in some instances occasioned by the desire to raise the necessary funds for defraying the expenses of the funeral. This affords a fruitful source for the extension of contagious diseases, while the mourning coaches, which among the poor are frequently employed for conveying the corpse to the cemetery, and which in many instances are filled with the relatives of the deceased, may also help to spread infection, more especially during times when epidemics are prevalent. In another portion of the same report Mr. Liddle calls attention to what he considers an objectionable clause in the Artisans' and Labourers' Dwellings Improvement Act. The fifth section of this Act makes it compulsory on the purchasers of the land to provide house-accommodation for the same number of the class of persons who shall have been displaced by the pulling down of their habitations; but since Mr. Liddle's report was written the Artisans' and Labourers' Dwellings Act Amendment Bill has been passed (as pointed out in a previous paragraph), and the clause complained of has been enlarged and amended so as to remove the objections and difficulties in carrying it out.

OUTBREAK OF MILK-TYPHOID IN CHICHESTER.

INFORMATION having been received by the Local Government of the existence of a very serious outbreak of enteric fever in Chichester, Dr. Airy, one of the Medical Inspectors of the Board, was sent down to inquire into the matter, and we have his report now before us. His inquiry seems to have

been very minute and very complete; and besides examining fully into the circumstances of the outbreak of fever, he deals with the general sanitary conditions of Chichester, which, though decidedly better than when reported on by Dr. Seaton, in 1865, appear still to be far from satisfactory. But the only outcome of Dr. Airy's inquiry that we propose to notice is the fact that it appears to be fairly clear that the Chichester outbreak of enteric fever was due to milk-contamination. Without going fully into details, it may be stated the inquiry made regarded cases that occurred in the western and south-western parts of the city. In these parts, in Westgate, Orchard-street, and Canon-lane, during a period commencing from about February, and extending through March into April, there were some fifty persons attacked, six of them fatally, in thirty houses. The first person attacked was a theological student, residing in a good house in Westgate, supplied with water by the Chichester Waterworks Company. He was said to have been of a delicate constitution and abstemious habits, "drinking chiefly milk." Four days later, on February 13, another student, in the same house, was taken ill under similar conditions. On the same day a child was attended for typhoid fever in Orchard-street; and here the water was obtained from a private well used by two families in common. On February 15 two children were attacked in each of two families living in Westgate, and supplied by the waterworks. In one of these families there were four children; and the two who were attacked were the two who drank milk. On February 18, a family of the upper class in Canon-lane, in the south-western part of the city, were attacked by typhoid; and subsequently another family in the same lane; and it was found that not only these two families, but all those above-mentioned, were supplied with milk from a particular dairy in Orchard-street. Inquiry showed that of the thirty houses infected, seventeen had wells, and thirteen were supplied by the Chichester Waterworks Company; and, it may be added, the water supplied by the Company has been analysed and been found of irreproachable quality. Any suspicion of infection by water-supply was therefore dismissed. As to the drainage, it was bad enough in some of the localities concerned, but not in Canon-lane. But as regards the milk-supply the case was very different. A list was obtained of all the families which at the time of the outbreak were directly supplied with milk from the Orchard-street dairy. They were fifty-three in number; and six more obtained milk indirectly or in very small quantities from the same source, making fifty-nine in all. Of these about twenty-six, or 43 per cent., had during the epidemic more or less distinct cases of typhoid fever. In the locality supplied by the Orchard-street dairy were about forty families supplied from other dairies, and nine of the forty obtained also partial supplies from Orchard-street. Among these families no case of typhoid occurred, except in five of the nine partly supplied from Orchard-street. A very strong case seems thus to be made out against the Orchard-street dairy milk as the vehicle of infection. And it is hardly, if at all, weakened by the fact that the dairy served seven families in Tower-street, in the north-western part of the city, and none of these families suffered; for the last street served by the milkman in his daily round was Tower-street, and it happened more often than not that by the time he arrived at that street his own supply was exhausted, and he had to purchase milk from another dairyman to make up the quantity required. The next thing was to make out how the milk came to be infected; and this is the weak part of the case. The dairy was visited and inspected. The well-water used was clear and bright, and was considered by the neighbours to be preferable to most of the well-water in the street. It was analysed by Dr. A. Dupré, and his conclusion

was that, if there were no sources of contamination near the well, he should consider the water a fairly pure chalk water. But if sources of contamination were near, he thought it highly probable that the water was "slightly contaminated by sewage or urine which had not passed through any great thickness of earth." A few yards from the well in one direction was a privy-pit, and a few yards in another a slop-cesspool. But there was no history of typhoid in the house or near it previous to the outbreak in February, therefore there had been no chance of specific infection. The general management of the dairy was good; there was no suspicion of any wilful dilution of the milk, and the customers generally gave testimony as to its goodness and richness. Dr. Airy then visited the meadows where the cows pastured, and the milking-shed, and he learned that the meadows were bordered on two sides by the "Lavant," a stream which passes along the outskirts of the city on three sides; that the milkman before milking the cows washed their udders and his hands, roughly wiped them upon his apron, and then proceeded with his milking; that when there was water in the Lavant he took from it the water for this washing purpose; and that there was distinct evidence that at the end of January and the beginning of February the Lavant stream was carrying typhoid excreta, for where the stream first approaches the city it runs close at the backs of some cottages, in which there had been a good deal of typhoid fever in the fourth quarter of 1878, extending into January, 1879. The quantity of infected water that could have been introduced into the milk in this way must have been *very* small; but no other source of infection of the milk was discovered. Dr. Airy admits, of course, that the evidence he brings against the milk on is on this point very questionable, but he submits that the facts relating to special incidence of the fever on customers of a particular dairy are such as could not be explained on the hypothesis that the outbreak, as a whole, was due to sewer-gas or any other cause than infected milk.

ST. JOHN'S HOUSE, MENTONE.

A House of Rest for clergymen and other professional men is about to be opened at Mentone, France, in which it is hoped that those who have been overworked may obtain such change and rest as may restore them to health and usefulness. The scheme has the approval and support of the Archbishop of Canterbury, and the Bishops of London, Exeter, Lichfield, and Gibraltar. The conditions on which applicants will be admitted are:—1. That the health of the applicant is such as to make a winter in a mild climate necessary, or at least advisable; 2. That he is unable to obtain this without such assistance as St. John's House will afford; 3. That his medical advisers are able to give a fair hope that with the benefit of a winter abroad he will be able to return to his work; 4. Each applicant will be asked to give references to two clergymen, and to a medical man who is fully acquainted with the case; 5. Those who are admitted will pay their own journey to and from Mentone, and £1 per week for board and lodging during the time they are in St. John's House. The honorary secretaries to the scheme are the Rev. C. Wyatt Smith, Middleton House, Upper Tooting, and the Rev. H. Sidebotham, 67, Thistle-grove, Brompton (after October 6, St. John's Parsonage, Mentone), to whom applications for admission should be addressed.

THE PRODUCTION OF HEMOGLOBINURIA BY GLYCERINE.

A REMARKABLE difference in the action of glycerine, according as it is injected into a vein or under the skin, has lately been pointed out by Schwahn (*Eckhardt's Beiträge*, viii., *Centralblatt*, No. 33, 1879). If glycerine diluted with from

50 to 60 per cent. of water be injected into the subcutaneous cellular tissue, or into the stomach of dogs or rabbits, hæmoglobin is absolutely certain to appear in the urine; whereas, if an equal quantity be injected into a vein, this phenomenon does not occur. In the same way the blood corpuscles in a mixture of glycerine and blood are unaltered in form or colour. Hence Schwahn regards the hæmoglobinuria after subcutaneous injection of glycerine as the result of diffusion; certain bodies, especially the metallic chlorides and sulphates, on whose presence the integrity of the blood corpuscles depends, passing out towards the glycerine, so that cellular dissolution follows. Schwahn has found that, if the renal arteries are tied after the subcutaneous injection of glycerine, both blood-plasma and lymph become coloured red by the dissolved hæmoglobin.

THE HEALTH OF TAUNTON.

THE annual reports for the year 1878 on the sanitary condition of the urban and rural sanitary districts of Taunton, to both of which Dr. Henry J. Alford acts as Medical Officer of Health, show a steady improvement following upon progressive sanitary precautions and a vigilant personal superintendence. In the rural district the number of deaths was five below the average of the five preceding years, the rate being 15.4 per 1000 of the population; and in the urban district also the deaths were below the average of the eight preceding years, or 21.8 per 1000. During the past year a hospital for infectious diseases has been erected, and at the present time only requires furnishing to be ready for immediate use. The hospital consists of four blocks, each containing a ward, nurse's room, and bath-room. Each ward is forty-eight feet in length, twenty-four wide, and twelve high, and accommodates six beds, giving over 2000 cubic feet of air to each patient. The walls are built of brick and are hollow, and a covered way connects all four blocks with the administrative block in front of them. A laundry, disinfecting chamber, mortuary, and ambulance-shed have also been provided. Of the zymotic diseases prevailing during the year, measles and whooping-cough were the most conspicuous and occasioned the greatest mortality in both districts. Enteric fever was comparatively rare when contrasted with previous years, and in those cases which came under notice was fully accounted for by either impure water-supply filthy accumulations, or imperfect closet accommodation.

THE USE OF HOT WATER AS A HÆMOSTATIC.

THE *Philadelphia Medical Times* of August 30 contains a note by Dr. Paul R. Brown, Assistant-Surgeon U.S. Army, on the use of hot water for restraining hæmorrhage following the employment of Esmarch's bandage. Dr. Brown observes that one of the most serious objections to the use of Esmarch's tourniquet in surgical operations has been the obstinate capillary hæmorrhage which almost invariably begins the instant the tourniquet is removed. To check this parenchymatous hæmorrhage Esmarch has recommended "ice-water applications," the employment of "the induced current," "compression of the main artery by the fingers," etc. But the mere fact, Dr. Brown remarks, that so many different measures are recommended with the object of checking the hæmorrhage, is proof positive that none of them can be depended upon. Struck by the effect of hot water injections in stopping uterine hæmorrhage, Dr. Brown determined to try if hot water would check capillary hæmorrhage of this special kind also. He had, in consequence of a return of disease, to amputate the forearm of a patient upon whom, three months before, he had performed Lister's operation for the resection of the carpus on account of necrosis of the bones. The patient had a marked hæmorrhagic diathesis.

Esmarch's tourniquet was employed on both occasions. After the first operation there was excessively troublesome parenchymatous hæmorrhage, which lasted nearly two hours. In the second operation free capillary oozing commenced as soon as the tourniquet was removed. The parts were immediately syringed with hot water, of the temperature of 160 Fahr. The hæmorrhage was instantaneously checked, and did not return; and in twelve days the parts had completely united and a cicatrix had formed. Dr. Brown had since several times used hot water to restrain hæmorrhage from wounds, and always with success. The water should never be used of a temperature lower than 150° Fahr. Dr. Brown suggests that the troublesome hæmorrhagic oozing which follows the employment of the Esmarch bandage is probably the result of a temporary paralysis of the vaso-motor nerves, caused by the pressure of the tense rubber: the hot water acts as a powerful stimulant to these nerves; and they at once excite contraction of the arterioles, and stop the hæmorrhage.

DIPHTHERIA IN THE AMPHILL DISTRICT.

DURING the year 1878, and in the first quarter of 1879, sixteen deaths from diphtheria were registered in the Ampthill Rural Sanitary District; and consequently Dr. Cory was sent down by the Local Government Board to inquire into the matter. He found that of the sixteen deaths, fourteen occurred in the Cranfield Sub-district, in the adjoining parishes of Cranfield and Marston. The other two had taken place in the two other sub-districts, but Dr. Cory discovered that there was nothing to be gained from detailed inquiry into them; and he accordingly limited his inquiry to Cranfield and Marston parishes; and it does not appear, from his report, that anything definite as to the cause or spread of the disease was arrived at. Cranfield is situated higher than the surrounding neighbourhood, being built on the surface of a small table-land, the ground sloping eastwards towards Marston, which lies distant two miles and a half; while Marston is situated at the bottom in a basin. Five furlongs north of Marston lies Lower Shelton, in which place also some of the cases of diphtheria occurred. There is nothing special about the houses. They are cottages, mostly built on the "wastes" of the roadsides; are of brick or wood, with tiled or thatched roofs which are not spouted. The three villages are all on the Oxford clay. The rain as it falls remains long in the ditches and pools, and the latter are numerous and are called "moats." The moats are in many cases contaminated by leakage from badly constructed cesspits, and some receive directly the small drains conveying the slops from the houses. Pigsties abound, and add their share to the contents of the moats. Some of these moats are especially described. One in the village of Cranfield communicates with a foul ditch which was much polluted by cesspits and pigsties, and runs close to the backs of the houses in which most of the diphtheria at Cranfield occurred; another at the back of the National School, Cranfield, received the drainage from the waterclosets in the curate's house, the drain from the school urinals, and the slops drain from the schoolhouse; and a third, at Lower Shelton, was as bad. The water-supply at all these places was obtained either from wells or moats; and the water in most of the former was thick and discoloured after rain, owing to the percolation of the surface-water into them. "Drainage answering any sanitary purpose can scarcely be said to exist either at Cranfield, Marston, or Lower Shelton." All the cases in Cranfield except one occurred in houses near the foul ditch above mentioned. Nothing exact could be made out as to the origin or spread of the disease. No mischievous influence in the spread of the disease could be proved against the milk-supply, or against the attendance of the children

at school. The sanitary conditions at the village were said to have been better at the time of the outbreak of diphtheria than they had been previously. There had been no prevalence of disease among cattle. Various recommendations were of course made by Dr. Cory for obtaining a better supply of pure water; for the protection of wells and moats from pollution from cesspits, pigsties, etc.; for the collection and storage of rain-water; for the filling up of foul and ill-placed moats; and for other evidently needed sanitary improvements.

PEPTONURIA.

DR. E. MAIXNER, of Prague, has examined a large number of pathological urines for peptone by a method of great accuracy (*Centralblatt Med. Wiss.*, No. 33, 1879), with the following results:—No peptone was found in albuminuric urines, nor, as a rule, in the urines of general diseases or acute infectious diseases, though it was present in a single case each of typhoid fever, gastric cancer, and intestinal catarrh, as well as in two cases of acute phosphorus-poisoning. On the other hand, peptone was constantly present in the urines of all diseases associated with suppuration, provided the amount of pus was considerable—for example, in empyema, peri-uterine accumulations, congestive abscesses, etc. Dr. Maixner does not say whether peptone is present in cases of amyloid disease of the kidney, due to suppuration; if so, his rule as to its constant absence in albuminuria does not hold good. As a rule, he has found peptone in all specimens of pus that he has examined, except in the sputa of "croupous" pneumonia. On the other hand, in the resolution stage of this disease, it was always present in the urine.

THE RADICAL CURE OF HERNIA.

DR. HENRY O. MARCY, of Cambridge, Mass., in a paper published in the *Transactions of the American Medical Association*, has revived the subject of the radical cure of hernia by the "antiseptic use of the carbolised catgut ligature." Seven years previously he published a paper in the *Boston Medical and Surgical Journal*, entitled "A New Use of Carbolised Catgut Ligatures," wherein he reported two cases of inguinal rupture cured radically by their agency. Quite recently he has again employed the catgut sutures for the same purpose in a case of double inguinal hernia; on one side with complete, and on the other with imperfect success. His plan of procedure is as follows:—Having divided the constricting abdominal ring in the usual manner, he pushes the unopened sac, with its contents, up into the abdominal cavity, and then passes two stitches of medium-sized catgut through the pillars of the opening. An abundant deposition of new tissue takes place about the walls of the ring, so that a firm mass is left to mark the closure. These sutures, Dr. Marcy states, were suggested to him because the first patient upon whom he operated suffered severely from an asthmatic cough, and he thought it desirable to temporarily strengthen the abdominal ring. We need not follow the author into the history of the use of animal ligatures, nor into the question of what becomes of them when used. We only desire to point out that we think he is a little over-sanguine of their "new use" when he claims for it the favourable consideration of surgeons, "at least in all cases of strangulated hernia where the wound can be closed." There are cases in which it would be by no means easy, or, if easy, by no means safe, to disturb the unopened sac from its surroundings; and many cases in which to return the sac unopened with its contents would be nothing less than a reduction *en masse* with the constriction still unrelieved. We notice, too, that all three of his patients were women, and two of them aged women, whose mode of

life would not be likely to test by muscular or other kinds of straining the strength or durability of the new tissue which closed the ring. In one of them, however, there was so little tissue to fill in and support the weakened ring that there continued to be a slight protrusion through it, so that the cure was not complete. In such cases of strangulated hernia, where the constriction is external to the sac, and the sac can be easily detached from its surroundings, the operation performed by Dr. Marcy is not only justifiable, but valuable; and it will be in the recollection of many surgeons that similar successes have been obtained occasionally with silver sutures by Dr. Gross and others since the year 1858.

THE DISEASES AFFECTING EUROPEAN RESIDENTS IN JAPAN.

CONTINUATION, from page 271, of extracts from Dr. Stuart Eldridge's paper in the Medical Reports of the Imperial Maritime Customs, China:—

LACQUER POISONING (LACQUER ECZEMA).

The comparatively trivial nature of most cases of this intoxication may be inferred from the fact that no cases appear in the records either of the Hospital or the Cemetery, though, as we shall see farther on, it is by no means impossible that exceptionally severe cases may result in death.

The botanical relations of the *Rhus vernicifera*, from which lacquer is derived, are very close to the American species *Rhus venenata* and *Rhus toxicodendron*, while the effects of the poisons of the three species are exactly similar, and, as will be seen below, their chemical reactions correspond. The American species have been investigated by Professor Maisch, the result of his researches being briefly as follows:—"The poisonous principle of the *Rhus toxicodendron* exists in the form of a volatile acid, the concentrated emanations from the fresh leaves or wood, the expressed juice or the distillate alike reddening litmus. Professor Maisch succeeded in separating this active principle which he calls toxicodendric acid, and found that its poisonous effects were those of the plant, but that it was much more rapid and violent in its action. The emanations from the tree are not sufficiently intense at ordinary temperatures to affect without actual contact any but the most sensitive skins; but while the plant was undergoing distillation, the diffused poison affected all who entered the room."—(*Proceedings of the American Pharmaceutical Association*, 1865.)

I have made a chemical examination of the Japanese lacquer, sufficiently thorough to assure me that it contains a volatile acid, the reactions of which agree with those of the toxicodendric acid of Maisch. The volatility of this principle explains the rare but well established cases of lacquer poisoning without direct contact, the immunity with which dried specimens of the plant may be handled, and the fact that lacquered articles become innocuous when once thoroughly dry and hard; while the acid nature of the poison affords a rational explanation of the fact, long empirically established, that as a preventive, or in the very first stages of lacquer poisoning, alkalies and certain chemical agents which form insoluble compounds with toxicodendric acid (*e.g.*, acetate of lead) are most to be relied upon.

All effects are generally manifested within twenty-four or thirty-six hours after subjection to the influence of the poison, sometimes not until the expiration of two, three, or even four days. Exposed parts, such as the hands or face, are most frequently attacked, though the poison, before absorption, may be conveyed by the hands to other parts of the body. In most cases the first notable effect is the production of an erysipeloid, cedematous swelling of the affected part, which is accompanied by severe itching, burning, and sense of tension. In the milder cases this may be the only result. More frequently the diffuse swollen inflammation is accompanied or followed by a vesicular eruption, exuding a watery fluid which may soon, and often does, become purulent. Cases present every degree of intensity, the eruption once formed appearing to be of eczematous nature and varying from a trifling rash, the component lesions of which are

separate and distinct, to a confluent form in which even large purulent ulcers may occur, as is the case in ordinary eczema of severe type.

As a rule the lacquer disease readily yields to treatment and is of little gravity. I have, however, met with two cases in which the resulting skin affection was severe, chronic, and obstinate. Two cases of death from exhaustion, the result of unusually severe poisoning by *Rhus toxicodendron*, have been reported in America, but so far, I have been able to learn of no case in Japan in which the later stage of the disease was so severe as to excite apprehension. Dr. Goertz, in a paper upon lacquer poison, published in the *Transactions of the German Asiatic Society of Japan* for September, 1875, alludes to a case in which the intense irritation and congestion at the onset of the disease produced grave cerebral disturbance.

The disease arising from lacquer poisoning in only pseudo-contagious—that is, the poison before its absorption by the skin may be transferred to others, just as from one part of the patient's body to another; but once having taken full effect, the disease is no more contagious than are other eczematous affections (excluding the misnamed eczema marginatum).

Anyone wishing to investigate the subject of lacquer poisoning will find in the paper of Dr. Goertz, mentioned above, some most valuable material.

DISEASES DUE TO INTERNAL ANIMAL PARASITES.

The commoner diseases of this class are rarely of a character which compels resort to hospital, neither do they often appear as a cause of death in the vital statistics of any but certain well known and limited districts. That tape-worm and round-worm are on the whole somewhat more frequent here than in most parts of Europe and America is, I think, undoubted, nor is the explanation of this fact difficult in view of the system of agriculture pursued by the natives. But the parasites are found in that stage of their existence during which they are the source of but little danger to their host. No record is to be found of the death of any foreigner in Yokohama from these causes, nor have I been able to learn of more than a very few cases of echinococcus tumours among the natives.

Parasitic chyluria is occasionally met with among the Japanese, Dr. Baelz of Tokio, myself, and probably others, having seen cases and detected the parasite. I have recently had under treatment a case of this disease in a foreigner, but in him it appears to have been contracted in India.

That the number of diseases ascribed to internal animal parasites will soon be largely increased seems probable from the results of recent investigations, more especially in Eastern countries. I have already, under the subject of aneurism, alluded to the researches of Dr. Manson of Amoy. The laborious inquiries of this gentleman, taken with those of others recently working in the same direction, seem to prove that elephantiasis proper (*E. Arabum*) should be relegated to the class of parasitic diseases. Of this disease but one case occurs in the records upon which this paper is based, this being that of a Malay who brought the disease from his own country. Elephantiasis is certainly rare among the Japanese also, at least as concerns those of Yokohama and Tokio.

AFFECTIONS OF PREGNANCY AND CHILDBIRTH.

There is reason to believe that pseudo-menstruation, or a more or less periodical recurrence of hæmorrhage, during pregnancy, is unusually frequent among foreign residents in Japan. I have collected the histories of nine cases of this nature, all of which have been met with during the last five years, and it is probable that this number by no means includes all that have occurred during that period. Considering that the number of foreign females of all classes, resident here during the period named, has by accurate census averaged but 200, nine is certainly a large number of cases of this elsewhere rare phenomenon.

The number of so-called dry labours is also very large in proportion to the number of accouchements; in fact, judging from my own experience and that of several of my colleagues, deficiency of liquor amnii must be regarded rather as the rule than the exception. That under these circumstances accident either to mother or child is no more common in Yokohama than elsewhere, supports, so far as it goes, the

doctrine that the rôle played by the "bag of waters" in the mechanism of labour has been greatly overrated. Probably in some way connected with the above is the fact that an exceedingly large number of women here are unable to nurse their children, though otherwise in good health. Taking the experience of the three medical men who have the largest obstetric practice—a practice including all nationalities—I find that at least 33 per cent. of the parturient women of Yokohama are, in this sense, bad mothers, and yet, as before remarked, the infantile mortality is exceptionally small.

Puerperal blood-poisoning, or puerperal fever in any form, is very rare among foreign residents; nor have these diseases ever been epidemic even to the extent of two successive cases. Undoubted cases of septicæmia consequent on childbirth have occurred, but these have been but few, widely separated in point of time, and, without exception, traceable to individual causes.

FROM ABROAD.

THE DIARRHŒA OF CHILDREN.

Two interesting papers on this subject have recently appeared in the *New York Medical Record*, from the competent pens of Profs. A. A. Smith and A. Jacobi. Dr. Smith's communication appeared in the number for July 12, in the form of a lecture on the "Therapeutics of Diarrhœa in Children," delivered at the Bellevue Hospital Medical College. All children, he observes, when suffering from diarrhœa should be kept quiet in a partially darkened room; and young infants should not be jolted, as is the habit of mothers and nurses, under the idea of amusing them. Young infants, when the diarrhœa is severe, can be kept more easily quiet when laid on a pillow instead of the lap, and should be moved as little as possible even while changing the napkin. The room should be well ventilated—mothers usually keeping it too close, under the fear of taking cold; and in the daytime the infant when awake should be carefully carried into the shade in the open air. In severe diarrhœa of young infants also warm applications should be applied to the abdomen. A spice-bag should be made by inclosing between two layers of coarse flannel about six inches square, and quilting, cloves, allspice, cinnamon, and aniseed, of each half an ounce, bruised in a mortar. This is to be soaked for a few minutes in equal parts of hot brandy (or other spirits) and water, applied to the abdomen, and renewed when it gets cool. In this way we get the effects of a poultice and the sedative and antiseptic effects of the spices.

Reduction of Temperature.—Prof. Smith attaches great importance to this as an adjuvant. When the rise of temperature is slight, say 102° Fahr. or less, sponging the body with water at about 80° will, if repeated often enough, reduce it to about its normal condition; but in all cases when the rise is above 102° a form of the wet pack should be resorted to. For this, having placed the child on a bed, cover it from the axillæ to the ankles (leaving the arms and feet uncovered) by means of a small folded sheet, on which water of the desired temperature is poured by means of a pitcher. The first application should be made by the practitioner himself, in order to allay the fears of the friends excited by the cries of the child, and to exhibit to them the wonderful power this means possesses of reducing temperature, calming the restlessness and irritability of the child, and inducing sleep. The temperature of the water may at first be 90°, and gradually reduced until it is brought down to 80° in a few minutes; or even lower when the temperature of the body is very high or rapidly rises again after reduction. It should be reduced to 99°, and usually sinks lower still when the child is taken out of the pack. According to whether this reduction to 99° is obtained, the child may be left in the pack twenty or thirty minutes, longer or shorter; and when removed should be put into a thin blanket and covered up, and allowed to sleep. In very severe cases, when the temperature rises to 105°, or higher, the cold may have to be applied every hour or two, and then the child need not be removed, even for days, from a bed conveniently adapted for this procedure, termed a "Kibbe's cot."

Too Frequent Nursing as a Cause of Diarrhœa.—Irregular and too frequent nursing are a frequent cause of diarrhœa, and by attention to this point it may be often cured. A child under four months will, as a rule, have two, and sometimes three, evacuations daily, and this is within the range of health. Many cases of diarrhœa are met with in which there is but little constitutional disturbance. There is frequency of stools, but the appearance of these is not unhealthy. Bismuth, three grains every two or three hours, will cure such cases.

Preternatural Acidity in the digestive organs produces diarrhœa, which is accompanied by considerable pain, the passage of small cheesy-looking masses into the stools, the odour of which is acid, and sometimes offensive, and the reaction decidedly acid. A teaspoonful of lime-water in two of milk three times a day, or chalk, may be given with good effect; and an occasional laxative is indicated for the removal of any of the cheesy masses that may be acting as irritants, or the laxative may be given at the commencement when the existence of any irritant is suspected. A good formula is pulv. rhei gr. xv., sod. bicarb. gr. xxv., aq. m. pip. ʒij. A drachm is a dose for an infant between one and four months of age.

Dentition as a Cause of Diarrhœa.—Lancing the gums is here especially indicated, and it is far better to err in lancing them too soon than to fail to do so when necessary. A child having from ten to twelve stools a day has often been relieved by lancing the gums, without any other treatment. It is in these cases that the bromides prove so effectual. Of a mixture consisting of sod. brom. ʒss., mucil. acaciæ, aquæ, aa. ad ʒij., a drachm may be given every three hours to a child between six months and a year. The bromide diminishes the reflex disturbance caused by the dentition, and the mucilage is soothing to the irritated intestinal membrane.

Errors of Diet: Condensed Milk.—A frequent cause of diarrhœa in infants is the giving mixed articles of diet when too young. Under eight months no other diet than milk should be given, and even up to two years it should form the main diet. Human milk is the best until weaning; but when the use of the bottle is unavoidable, during the first eight months, cow's milk diluted one-fourth with barley-water makes the best diet. The meal or crushed barley should be boiled with sufficient water to produce a consistency of thin cream; and the mixture should be a little sweetened, and given at about blood heat. After ample trial with it, Prof. Smith is of opinion that *condensed milk* is unfit for the diet of infants. Although they apparently thrive, when they fall ill they show but little resisting power, and when they are affected with diarrhœa this is obstinate, while they very rapidly weaken. There are exceptional cases in which it may be used, and some in which this is desirable for a short time only. When bottle-fed children suffer from diarrhœa, the milk should be boiled, and the barley-water made thinner, giving one-third of this to two-thirds milk. Wheat flour thoroughly cooked in the following way forms an admirable food for children with diarrhœa:—Tie up about two pounds in a muslin bag, and suspend in a kettle of water, in which it is to boil for five hours, and then get cold. The outside dough is to be cut off and grated, and boiled milk thickened with it to the consistency of thin gruel, or so as to allow it to pass through the nipple of a sucking-bottle. All food for children should be thoroughly cooked, and especially so when they are ill from diarrhœa. As a rule, children with acute diarrhœa should have only just enough food to satisfy hunger, and a little cold water will relieve their thirst and lessen their desire for food. Alcoholic stimuli are to be avoided unless there is exhaustion. Small quantities of iced champagne may be given if there is obstinate vomiting.

Flatulent Diarrhœa occurring in young children gives much trouble, the motions being frequent but very small, and the flatulence keeping the child awake. The following is an excellent formula:—Magnes. calc. ʒj., sp. ammon. arom. ℥xl., tr. assafœt. ʒj., anisette ʒvj., aq. cin. ad ʒiv.; a drachm to be given a child from three weeks to four months old. Two or three doses will usually relieve.

Employment of Kumyss.—There is a summer diarrhœa with frequent discharge of green motions accompanied with pain, vomiting often being a troublesome symptom. It is probably due to the non-digestion of sugar. In these cases, kumyss, in which the milk has already taken the first

step in digestion, is indicated. It contains no sugar, and the casein is in fixed condition and cannot undergo coagulation and putrefaction, while the small quantity of alcohol present is easily assimilated. Children will not readily take the carbonic acid gas with which it is charged; but this is readily got rid of by decanting a few times. Sometimes children who can take nothing else can take a teaspoonful of kumyss and digest it, and frequently will recover under its use without any other medicinal treatment; and no other food is required while it is in use. It should be given cold, without sugar, and not within two hours after any other form of milk.

Dysenteric Diarrhœa is another form which is frequent in summer, characterised by frequent evacuations and straining, as in dysentery, the stools having the consistency of pudding or thin jelly, being usually of a pinkish colour, due to admixture of blood and mucus. Small doses of castor oil and opium form an excellent combination—*Ol. ricini* ʒj., *sacch. lactis* ʒss., *tr. opii camph.* ℥xxxij. ad ʒiss., *mucilag.* aquæ, aa ad ʒj.; a drachm every two or three hours. Starch enemata may be also given, then leaving out the paregoric from the mixture, and administering one or two drops of laudanum with one to three tablespoonfuls of starch-water, according to the age of the child. This should be tepid and about the consistence of thin cream. It may be repeated every three to six hours.

Inflammatory Disorders.—There is a numerous class of summer diarrhœas included under this title. They are accompanied by great pain and frequent motions, with or without a small quantity of blood, increase of temperature, disturbances of the nervous system, and sometimes gastric irritability. The indications are to reduce the temperature, manage the diet, use warm applications to the abdomen, and give a combination of opium and camphor. Tully's powder, consisting of morphia, camphor, and prepared chalk, is a good combination; ten grains of this containing a sixth of a grain of morphia and a little more than three grains of camphor. To a child from three to six months of age may be given the eighth of a grain every two to six hours, according to the results; and a child of from six to eighteen months may take from one-eighth to one-fourth of a grain. After the symptoms have been controlled there remains in many cases a tendency to looseness of the bowels, with very little constitutional disturbance. For Tully's powder the following mixture is to be then substituted:—*Acid. sulph. dil.* ℥xxiv., *salicin. gr.* xxiv., *glycerin.* ʒiiij.; a drachm three times a day. Not to be given within half an hour after taking milk.

Passing over Prof. Smith's observations on the treatment of "cholera infantum" as met with in the United States, for which we have not space, we may observe that in treating acute diarrhœa of children in general he objects to the common habit of giving beef-tea, which almost invariably acts as an irritant and aggravates the disease. Opium, too, he believes, is given far too indiscriminately, being frequently administered when other remedies would do as well or better, without giving rise to its ill-effects. "Good nursing," he concludes, "and removal of causes, keeping the patient quiet, regulation of the diet, improving the hygiene, reducing the temperature, removing the causes of disturbance of the nervous system, will, in the great majority of cases of diarrhœa in children, do away with the necessity for medicines."

(To be continued.)

THE SUPPLY OF WATER AT LYONS IN ANCIENT AND MODERN TIMES.—From the remains of the aqueducts and other data it is calculated that the Roman Lugdunum supplied its population of from fifty to sixty thousand inhabitants at the rate of fourteen or fifteen hundred litres per head of water of almost an ideal purity. For modern Lyons, with its population of 342,815, the water is derived from the filtration galleries in the gravel-pits on the right bank of the Rhone. From these are obtained from 28,000 to 30,000 cubic metres per diem of very pure filtered water, but as the consumption amounts to from 50,000 to 55,000 cubic metres, the surplus has to be derived from the more or less turbid waters of the Rhone, the mean daily distribution being 39,700 cubic metres, which gives to each inhabitant about 115 litres—as compared with the 1400 or 1500 litres of the inhabitants of the ancient Lugdunum.—*Lyon Méd.*, Sept. 7.

REVIEWS.

Die Entdeckung des Blutkreislaufs. Historisch-kritische Darstellung von Dr. Med. MARTIN KIRCHNER. Berlin: August Hirschwald. 1878.

The Discovery of the Circulation of the Blood. A Critical and Historical Essay. By Dr. M. KIRCHNER. Berlin, 1878. Published by August Hirschwald.

THIS essay is partly an account of the researches of Harvey's predecessors, which paved the way for his great generalisation, and partly—and in great part—a reply to the attacks of Professor Ceradini of Genoa, who, it will be remembered, in 1876 claimed Harvey's discovery for Andreas Cesalpino of Pisa (1519-1603), a countryman of his own. It is satisfactory to learn that a man of Dr. Martin's evident erudition and thorough acquaintance with the literature of both sides of the question can completely disprove the pretensions of Ceradini, and triumphantly establish Harvey's merits. Copious extracts in support of his argument are given in the original. Here we have only space to quote a line or two from the author's concluding page. "What we have tried to show," he says, "is that the discovery of the circulation of the blood was prepared for by the toil of a thousand years, and that it was completed by a great number of busy and enthusiastic investigators; but that the man who drew the conclusions from the work which had gone before, and discovered the circulation—the man on whose shoulders later investigators rest, and from whom they derived inspiration—was no other than William Harvey." This excellent essay, which is dedicated to Professor Hirsch of Berlin, cannot fail to be of value, if to no one else, to the future authors of Harveian Orations.

Des Myélites Syphilitiques. Par RAYMOND CAIZERGUES, Docteur en Médecine, etc. Montpellier: Hamelin Frères. 1878.

Syphilitic Inflammations of the Spinal Cord. By Dr. RAYMOND CAIZERGUES, Laureate of the Faculty of Medicine of Montpellier, etc. Montpellier: Hamelin Frères. 1878.

TREATISES like the one before us, even if they fail in originality, at least serve the valuable end of directing the attention of the profession at large to the variety of nervous affections induced by syphilis. For the actual sufferers it is of the most vital importance that their medical attendant shall have his eyes open to the possibilities of this protean disease; that, even in spite of their own obstinate denial of long antecedent infection, he shall form a correct independent opinion of their case from collateral evidence, and that he shall seize the moment before it is too late to institute a rational, and happily often more or less effectual, treatment. Syphilis simulates nearly every nervous disease, just as it simulates nearly every disease of the skin. Of late years—thanks largely, as Dr. Caizergues admits, to British workers—the area of our knowledge of syphilitic lesions of the nervous system has been steadily enlarging; in fact, a work like the present would have been impossible twenty years ago—the materials for it did not exist. Dr. Caizergues has very carefully treated the section of spinal syphilitic diseases, and analysed at some length, with illustrative cases, the symptoms, pathology, prognosis, etc., of the syphilitic forms of muscular atrophy, bulbar paralysis, ataxy, myelitis, disseminated cerebro-spinal "syphilosis," etc. There are some good remarks on diagnosis at the end, and throughout the writer exhibits an unusually accurate acquaintance with the literature of the subject. As a curiosity of dedicative enthusiasm, the five pages which precede the introduction deserve notice. They are filled with the names of the author's relatives and friends, to whom this tribute of his affection is offered. Beginning with "the memory of his father," he enumerates all the professors who have taught him, and ends with a collective dedication "*à tous amis.*"

Health Primers. The Skin and its Troubles. London: David Bogue. 1879.

THIS is one "of a series of shilling volumes on subjects connected with the preservation of health, written and edited by eminent authorities." It is not stated by which

of the "eminent authorities" mentioned in the prospectus the volume before us is written, but it is a very creditable production. A great deal of useful and interesting information on the skin has been arranged for the use of the public within a space of less than a hundred pages, and the public cannot fail to benefit by reading such a book, which is remarkably free from anything approaching quackery, or from being the medium of pharmaceutical advertising.

The chapters on skin troubles from poisonous clothing, and on the ordinary management of the hair, may be read with profit even by many of our own profession. There are a few grammatical slips here and there. The style, on the whole, is simple and unpedantic. The only attempt at a facetious remark (perhaps unconscious) which we have noticed is at page 88, where we are told that "every head of a school or institution where young girls or boys are congregated, should enjoin the frequent examination of the heads, to detect early any possible outbreak of ringworm." Is the head of the head of the school to be examined among the number?

FOREIGN AND COLONIAL CORRESPONDENCE.

AMERICA.

PHILADELPHIA, August 20.

COLOUR-BLINDNESS, AND OTHER DEFECTS OF SIGHT, AS AFFECTING FITNESS FOR MILITARY SERVICE: MEMORANDUM ON THE SUBJECT BY THE SURGEON-GENERAL, AND REPORT BY DR. WOODWARD—CINCHONA-TREE CULTIVATION AND THE CLIMATE OF CALIFORNIA—YELLOW FEVER AND THE GAMGEE REFRIGERATING AND DISINFECTING SHIP—PATHOLOGICAL LABORATORY AT HAVANA FOR RESEARCHES AS TO YELLOW FEVER; EXPERIMENTS ON ANIMALS—DR. A. N. BELL, OF NEW YORK, ON YELLOW FEVER—HEAT *v.* COLD AS A DISINFECTANT.

I ALLUDED in my last letter to the great interest now expressed in the subject of colour-blindness, and to the examinations made by several medical gentlemen in this direction. The War Department, a few days since, issued a general order upon the subject of the examination of the eyes of recruits, the Surgeon-General having fully recognised the importance of the subject, and given a Surgeon (J. J. Woodward) the matter for investigation. The official instructions now given to medical examiners of recruits for the Army are, so far as the eyes are concerned, that hereafter no recruit shall be enlisted who cannot see well at 600 yards distance to a black centre, three feet in diameter, on a white ground; the test to be made by cards prepared under the direction of the Surgeon-General. The black spots on the cards will be circular, four-tenths of an inch in diameter, and the recruit must be able to count them with facility at twenty feet distance. Myopia, hypermetropia, and astigmatism, if unaccompanied by diseases of the eye, are not to be considered as causes for rejection, unless they impair the vision to such a degree as to prevent him from counting the test-spots already referred to at the distance named. The character, and approximately the degree, of these defects can be ascertained by the spectacles and test-types to be issued by the Surgeon-General to the medical officers. Presbyopia is not of itself a cause for the rejection of a recruit, but those in whom it exists are usually over age. At the principal recruiting depôts all accepted recruits will be examined for colour-blindness. Dr. Woodward has made a report on the latter subject, pointing out its importance, and especially alluding to the unfitness of such persons for the signal service of the Army; although for the present he recommends that colour-blindness shall not be regarded as constituting a cause for the rejection of a recruit or a candidate for appointment to the Military Academy. It should be made a matter of record, however, in both cases, so that a just idea of the incapacity, if any, resulting from this defect may be ascertained by experience; the defect to be mentioned on the descriptive list of the recruit. Properly selected sets of wool-tests are recommended to be issued to the medical officers, together with a copy of Dr. B. Joy Jeffries's work on "Colour-Blindness." The cards mentioned in the order are the size of the ordinary playing-cards, having five spots

on them, arranged in the form of the five spots of the pack, the width of the row of spots being two and five-sixteenths inches, and the length three and one-eighth inches, with one spot in the centre of the card.

Now that the introduction of the cinchona-tree into a variety of regions is established as a possibility, California seems likely to offer another locality for its culture. It is said that there are numerous places among the mountains in the coast range of that section of country exposed to heavy fogs for many months in the year, where the temperature and moisture correspond with the known requirements of this tree. The cinchona-trees are not trees of tropical climates, properly speaking, as regards temperature, for the best bark-yielding trees do not grow below a level of four thousand feet above the sea, and are found in the most bleak and desolate places. It is said that the enterprise of cultivating the tree in California is not necessarily an expensive one if rightly conducted, and it is suggested that the National Government should undertake it. It is estimated that the expenditure of a thousand pounds (\$5000) would be sufficient to introduce its culture on the Pacific Coast.

While here and there advocates of the indigenous origin of yellow fever may still be found, the foreign importation of the disease seems to be very generally accepted as the exciting cause of its prevalence in this country. The most plausible scheme suggested for the prevention of its introduction by means of ocean vessels, and yet to be systematically tried, is artificial refrigeration, it being well established in the minds of some sanitarians that a temperature below 32° Fahr. will destroy the germ of the disease. The plan of Mr. John Gamgee, of London, to build a steamer to carry a powerful refrigerating machine and a standing store of cooled uncongealable liquids, with which, at short notice, any ship may be effectually subjected in every part to any desired temperature, seems to have secured a considerable amount of popular and official favour. According to a description recently published, the present Gamgee glaciarium is an apparatus combining with the manufacture of ice the refrigeration of rooms in which meat, fruit, and other articles are preserved, and the providing of skating-rinks with genuine ice floors. By this machine water is frozen into ice or air is cooled down, and its germs and moisture are frozen on iron plates, so as to purify, clear, and dry the air thereby preventing putrefaction. The freezing agent of the Gamgee machine is ammonia. The ice machine proper consists of two or more compressors, a condenser, auxiliary condenser, and refrigerator. In the last a mixture of glycerine and water, chloride of magnesium, or other saline solution remaining liquid at low temperature, is cooled. This solution is led through pipes into vessels containing inverted moulds, which are filled with the water to be frozen. The ammoniac gas is compressed and cooled in the condensers until it liquefies; it is then evaporated in the refrigerator, and forced back again by the compressor into the condenser, where it is cooled, and continues its circuit as already described. Congress has appropriated \$200,000 for the proper construction of the vessel and apparatus, and this amount is to cover the cost of maintenance for six months. In order to concentrate the power of the machine which it carries, the vessel will always have from forty to fifty tons of magnesium solution in the ballast tanks cooled down to below zero (Fahrenheit). Pumps of adequate size will clear out the bilge as much as possible; but the difficulty, especially in wooden ships, is the adherent organic matter, which penetrates the wood, and remains there, a constant source of danger, discharging into every fresh influx of air, or new cargo, more and more of the infecting material. To meet this a strong solution of chloride of magnesium will be pumped into the bilge, and wherever necessary, under a high pressure, by means of a hose, a current of this artificial "pickle" will be driven into the crevices and pores of the wood. Chlorides used in this way are said to have a preservative influence on the wood, and to effectually control the putrefactive or fermentative changes which the fetor indicates as concomitants of the contagious principle. The solution thus forced may be at 20° or 30° below zero, if necessary; and on the assumption of the Board of Experts, that the yellow fever poison is not able to withstand the influence of frost, it is not difficult to maintain the freezing liquids in circulation, in contact with the contaminated parts of a ship, so long as to render innocuous and even destroy such poison.

Some rather novel experiments are now being made by representatives of the National Board of Health, Drs. S. E. Chaillé and Sternberg, at Havana, which is looked upon as the home, *par excellence*, of yellow fever. They propose to establish there a complete physiological laboratory in which the investigations can be carried on. One of the sanitary inspectors of New York, who is also in charge of the physiological laboratory at Bellevue Hospital Medical College, selected animals to be sent to Cuba for experimentation. I see it stated that one of the important points they wish to test is whether a newly arrived person is more liable to contract yellow fever than one who has lived in the country for some time, and this is the reason why they wished the animals sent to them from a northern port. They also wish to find whether a white animal is more susceptible than a black one. All the animals shipped are as nearly white as possible, and it is proposed to expose them to the contagion by placing them in apartments where the fever has been and is at the time present. The various fluids of the body of a person having yellow fever, and especially the black vomit, will be introduced under the skin of the healthy animals, and the effects carefully watched and noted. The temperature will be carefully observed, and the perspiration and other secretions examined with all possible accuracy. What practical conclusions may result from all this labour in a new field of research cannot now be conjectured. The chief points from which the fever is imported are Havana, Vera Cruz, and Rio Janeiro; but, as has been stated by Dr. Vander Poel, the Health Officer at New York, there is but little danger to the latter city from Vera Cruz, because the traffic between the two places is slight, and the vessels are obliged to load in the roadstead, at some distance from the city; moreover, when the fever prevails in Rio it is winter in this country, which fact, along with the length of the voyage, makes its propagation from that source almost impossible. He proposed some time since that the Government of Spain be solicited to unite with this Government in the appointment of an international commission, who should proceed to Havana, with a view to examine the sanitary surroundings of that city, and their relations to the propagation of the scourge, and that the Spanish Government should be earnestly requested to carry out the joint recommendations of such commission. It is probable—indeed, almost certain—that the gentlemen who are now experimenting in Cuba cannot accomplish any complete measures, in respect of the prevention of the disease, without consentaneous action on the part of the Spanish Government. The Merchant Marine at Havana are compelled, according to the same authority, by the peculiarity of the location to lie in the focus of all the impurities and stifling exhalations, and as a result no vessel can remain there any length of time without becoming itself infected. The tide being almost imperceptible, all the emptyings of the sewers remain in the harbour until they become a fetid and revolting mass of corruption, generating almost every kind of filth-produced disease.

An Act passed by Congress at its last session, to prevent the introduction of contagious or infectious diseases into the United States, provides that commanders of ships coming from infected ports must obtain from the United States consular officer of the place a certificate setting forth the sanitary history of their vessels, cargoes, crews, and passengers. It also authorises the President to appoint a limited number of medical inspectors to be attached to consulates from the vicinity of which danger might be expected, who shall examine into the condition of all ships bound for this country, and control the issue to them of "bills of health." This would only be a partial measure, however, for such an officer would not be able to detain any vessel or compel her to undergo any process of disinfection, nor could he detain any person unless absolutely sick with the fever. He could only give his best advice to the captains as to what they ought to do, and if he considered a vessel or those on board dangerous, he could refuse to issue a clean bill of health. He could not even examine vessels flying foreign colours unless with the consent of their officers; but it is not likely that officers would want to sail if they knew that their vessels were in a dangerous condition. If they arrived at New York without certificates, or with certificates to the effect that they sailed in an unhealthy condition, the quarantine officers would exercise much more stringency in passing them than they would if they knew that they sailed with a clean record, and had no cases during the voyage. I have

referred to the supposed influence of cold as an agent in the effectual annihilation of the disease. Several good authorities contend that, on shipboard, heat alone can be relied upon to destroy the infectious matter. A good process, they say, is to subject all material supposed to contain the germ to a temperature of 212° Fahr., by fastening down the hatches and forcing steam into her from the boilers of another vessel alongside. They claim that heat effectually kills the germ, while cold only checks its action, so that the fever may be rekindled when the conditions again become favourable to it.

The views of sanitarians on the threatened yellow fever epidemic are being freely ventilated at the present time. I think the most sensible I have lately seen expressed are those of Dr. A. N. Bell, of New York, the well-known editor of the *Sanitarian*, who for nearly a third of a century has familiarised himself with the disease in all its aspects in Mexico, the West Indies, on the Spanish Main, in Africa, and elsewhere. Dr. Bell, who was at one time Quarantine Commissioner of New York and author of its quarantine law, and has now gone South as Inspector of the Atlantic Coast from Virginia to Georgia (a coast line of 1000 miles), under the auspices of the National Board of Health, does not consider that the Southern people realise the danger to which they are exposed, as they are lulling themselves into a fatal confidence in the belief that they cannot have the fever unless it should be brought to them from without. In the seaport towns they insist that the disease never reaches them except by ship, yet some of these towns have filth enough in them to infect every ship's crew in the world! Their sewers discharge their contents among the shipping, and some of the filth becomes part of the bilgewater of the vessel, the foul emanations finally pervading the whole vessel and cargo. He thinks this is the "germ" which scientists see with their wonderful magnifiers, while they fail to see or smell the filth that causes it. He does not believe that the proposed process of freezing vessels will be attended with success, as in waters south of the arctic circle the poison in the timbers cannot be frozen. If it be a leaky vessel especially, and one that has lain in any filthy port, the poison pervades every part of the ship. A poisoned ship should be steamed through every portion of it. When the work is properly done every bit of woodwork becomes so hot that, when the hatches are finally lifted, the heated wood immediately dissipates the entire body of moisture in the form of vapour. Fever ships had been treated successfully in this way. He believes that in many of the Southern towns the disease originates in local conditions, such as moisture, putrefying organic matter, and high temperature; the open sewers, foul closets, sinks, and drains, refuse of all organic sorts, etc., are the exciting causes. Excessive moisture and heat are not sufficient alone to cause the disease. He said that steady, honest, intelligent, industrious war upon filth will save any and every southern town from the scourge.

NATIONAL TRAINING SCHOOL OF COOKERY.—Professor A. H. Church commenced on Monday last a course of ten lectures, on the Chemistry of Food, at the South Kensington School of Cookery. The subjects of the lectures, delivered on Mondays at 5 p.m., are:—1. Constituents and Uses of Food; Water, its properties, purity, etc. 2. Starch, Sugar, Gum, Fat, Oil, and other heat-givers. 3. Albumen and other Flesh-formers, Common Salt, and Mineral Matter. 4. A Day's Ration. 5. Bread and Bread Stuffs. 6. Peas, Beans, and Pulse. 7. Potatoes and other Tubers and Roots, Green Vegetables and Fruits. 8. Milk and Dairy Produce. 9. Meat, Eggs, Poultry, and Fish. 10. Flavours, Tea, and other Food Adjuncts.

CASE OF DEPRAVED APPETITE.—Dr. Fulton relates the case of a girl who when six years old exhibited a singular taste for feeding on slugs, beetles, cockroaches, spiders, and other repulsive insects. She had been carefully brought up as one of thirteen children, in no one of whom did a similar depravity of appetite exist. There was no trace of insanity in the family. The girl was remarkable for an extremely amiable disposition; she was somewhat below the ordinary in intellect, but had remarkable aptitude for mimicry and repartee. She was of slight but perfect physique. This disposition continued for several years, her appetite becoming perfectly normal about the age of fourteen.—*Australian Med. Jour.*, June.

OBITUARY.

THOMAS TATUM, F.R.C.S.

THIS well-known surgeon, who was a great favourite with old St. George's men, died, as we stated last week, on Friday, the 5th inst., in his seventy-seventh year. Mr. Tatum was born in Salisbury, and having received there his general education, came to London, and entered at the then well-known Hunterian School in Great Windmill-street. Subsequently he removed to St. George's Hospital, and finally completed his studies in Paris. On his return from abroad he was elected House-Surgeon of his Hospital before he had obtained any qualification—a practice which has been, we imagine, discontinued at all our hospitals. In June, 1828, he passed his examination, and was admitted a Member of the Royal College of Surgeons. In 1830, in conjunction with Mr. (afterwards Professor) Herbert Mayo, he commenced teaching anatomy in the Hunterian School, at which so many distinguished members of our profession (including Mr. Cæsar Hawkins, Sergeant-Surgeon to her Majesty) taught. On the opening of King's College, Mr. Mayo was offered, and accepted, the Professorship of Anatomy there; and Mr. Tatum, on the institution of the Anatomical School in connexion with St. George's Hospital, in Kinnerton-street, was appointed the Lecturer on Anatomy, and with so much satisfaction to his colleagues and pupils that he was appointed Lecturer on Surgery, which office he retained until 1867. He was elected Assistant-Surgeon to St. George's Hospital in 1840, and succeeded to the full Surgery in 1843: soon after which, under the new Charter of the College of Surgeons, he was one of the first 300 of its members elected to the honorary Fellowship of that institution. In 1857 he took his seat as a member of the Council, subsequently serving on several of the committees, especially that of the Library, in which, as well as in all the affairs of the College, he ever took a warm interest. In 1867 he resigned the Surgery of the Hospital, when the governors recognised his valuable services by appointing him Consulting Surgeon; and his pupils and many friends attested their kindly feelings towards him by presenting him with a testimonial, which took the form of a service of plate, at a meeting held at the Marquis of Downshire's house in Belgrave-square.

Mr. Tatum, who was of a very reserved and retiring character, was little met with in the medical societies, and rarely spoke at any. His contributions to the literature of the profession consisted of a paper in "Holmes' System of Surgery" on "Injuries and Diseases of Muscle," a paper read before the Royal Medical and Chirurgical Society "On Tumours in Muscles," and others in the pages of the *Medical Times and Gazette* and in the *Lancet*. He married a daughter of Mr. William Brodie, M.P. for Salisbury, and niece of the late Sir Benjamin Brodie, Bart., by whom he had, we think, three daughters; and by a second marriage he had a son, a member of the College of Surgeons. Mr. Tatum, who was a remarkably good anatomist, was also a dexterous operator, a fluent lecturer, no mean naturalist, and a good linguist. When he commenced the practice of his profession, a successful career was foretold for him, but his feelings and inclinations rather induced him to eschew private practice. He was a gentleman in the true sense of that word—genial in disposition, and tolerant of the opinions of others; perhaps it might be added, with not quite sufficient confidence in his own. He never made an enemy, but a great many warm and attached friends, who have for some time much regretted that the state of his health enforced his retirement from social life.

THE LATE DR. HEATON, OF BOSTON.—A Boston correspondent of the *New York Medical Record*, July 26, states that Dr. George Heaton, of that city, had recently died there, leaving a large fortune, the result of his great success in performing his operation for the radical cure of hernia, varicocele, and hydrocele. Irritated by the cold reception his invention met with at Boston, he kept his mode of performing the operation a secret until some four years before his death, when, on the persuasion of Dr. Joseph H. Warren, he consented to publish an account of the simple and most effective procedure which he adopted. Assisted by Dr. Davenport, he issued the work since known as "Heaton on Hernia," which has already attained the position of a standard work on the subject.

NEW INVENTIONS AND IMPROVEMENTS.

EXT. CINCHONÆ RUBR. FLUIDUM.

EXTRACT of red cinchona bark has been strongly recommended lately as a cure for drunkenness, and the published evidence of its value in treating the state of drunkenness seems trustworthy, though its power in curing the habit is open to question. But, however that may be, the fluid extract of the bark prepared by Messrs. Evans, Sons, and Co., of Hanover-street, Liverpool, deserves recommendation. It is highly concentrated, and contains large quantities of the characteristic and active constituents of the bark, especially of cinchona. The dose is, in cases of drunkenness, from half a teaspoonful to a teaspoonful every three hours, and gradually reduced.

EXTRACT OF COFFEE AND CHICORY.

WE have received from Messrs. Walker and McLetchie, of George-lane, Botolph-lane, London, a sample of extract of coffee and chicory, stated to be prepared by them "from the finest coffees and dandelion chicory." We do not pretend to know exactly what is meant by "dandelion chicory," but the extract is very good. It has the aroma of good coffee, and makes with boiling water, and milk and sugar according to taste, a much better and more agreeable beverage than one generally meets with under the name of coffee in England. It may be safely recommended, and deserves to become popular, for with it good coffee can be made quickly, surely, and cheaply.

CREASOTE SOAP.

DR. F. VACHER, the Medical Officer of Health for Birkenhead, finding that the employment of carbolic acid or of chloride of lime was frequently objected to by his patients, and that Condy's fluid and chloride of aluminium were not to be depended upon, tried a preparation of creasote as a disinfectant, and found it answered his wishes and requirements. He then for general convenience converted his preparation into a creasote soap, and this is now made by Mr. Thomas Fore, of Market-street, Birkenhead. The soap has a faint (and therefore not displeasing) odour of creasote, is well made, and ought by virtue of the antiseptic properties of the creasote to be useful and popular.

RECTIFIED OPIUM PREPARATIONS.

MESSRS. SWAN AND PROCTOR, of Newcastle-upon-Tyne, have met a decided want, and rendered good service, by placing before the profession a series of opium preparations which contain fixed and constant proportions of morphia. As it is well known that genuine opium varies much as to its morphia strength, and that, consequently, the preparations made, solid or liquid, from different samples of opium may produce gravely different effects, we need not dwell on the value and importance of having preparations of uniform and reliable quality. Messrs. Swan and Proctor's preparations are:—Pulv. Opii Rect., containing meconate of morphia equal to 10 per cent. of pure morphia; Tinct. Opii Rect., containing three grains and a half of morphia per fluid ounce; and Liq. Opii Rect., containing three grains of morphia per fluid ounce. All the preparations are free from narcotine; and all the ordinary opium compounds of the Pharmacopœia, as the compound tincture of opium, Dover's powder, and the compound soap pills, may be prepared readily, and of uniform strength, from the Pulv. Opii Rect. No more need be said in order to recommend Swan and Proctor's new preparations.

SOLIDIFIED CARBOLIC ACID.

MESSRS. F. C. CALVERT AND Co., Manchester, have sent us a new preparation of carbolic acid, which ought to come very largely into use. The preparation contains 50 per cent. of genuine concentrated carbolic acid, and is in the form of solid square black blocks, perfectly soluble in water. It is therefore portable, and may be kept in houses without any fear of causing injury by misuse or carelessness. We have no hesitation in strongly recommending it.

SPARKLING CLARET-CUP.

WE have, we must own, a decided prejudice against such compounds as claret-cup, except when quite freshly prepared, and, indeed, unless we know of what ingredients the "cup" has been made. But we confess to having been very agreeably disappointed in the "Sparkling Claret-Cup" received from May-Davis and Co., of Esher-street, Westminster. It pleases the eye and the palate, and produces no unpleasant after-effects of any kind. Judging from taste and experience, we should say that its chief and most characteristic ingredient is a really sound, good claret, and that it is free from admixture with any of the fruit essences with which many drinks are nowadays made. It is a very pretty, pleasant, and refreshing beverage; and, *pace* the "temperance" associations, a wholesome one. It appears likely to be found convenient and acceptable.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 11:—

Fisher, Frederick Charles, 60, Cadogan-place, S.W.
Vachell, Edward Shearman, Bath.
Woodhouse, Tom Percy, Pontefract, Yorkshire.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Pollard, George, St. George's Hospital.
White, Edwin Francis, St. Thomas's Hospital.

NAVAL, MILITARY, &c., APPOINTMENTS.

WAR OFFICE.—MEDICAL DEPARTMENT.—Surgeon-Major Chamney Graves Irwin, M.B., and Surgeon-Major William Robert Wall, retire upon temporary half-pay. Surgeon-Major Langer Carey, M.D., half-pay, late Medical Department, resigns his commission.

BIRTHS.

AIKMAN.—On September 10, at New-street, Guernsey, the wife of John Aikman, M.D., of a daughter.
BROWNRIFF.—On September 13, at Hill View, Streatham-common, the wife of John Annesley Brownrigg, M.D., of a daughter.
CROMBIE.—On September 10, at Hawley Lodge, Brighton, the wife of John M. Crombie, M.D., of a son.
DALY.—On September 9, at Kingston Bagpuize, Abingdon, the wife of J. H. Daly, M.R.C.S.I., L.R.C.P. Lond., of a son.
DYER.—On September 14, at Ringwood, Hants, the wife of H. Geary Dyer, L.R.C.P. Edin., of a daughter.
EASBY.—On September 9, at March, Cambridgeshire, the wife of William Easby, M.D., of a son.
GREENWOOD.—On September 9, at 4, St. Mary's-square, Stamford, the wife of Thomas Porter Greenwood, L.R.C.P. Edin., of a daughter.
INKSON.—On September 14, at Beacon Lodge, Chatham, the wife of J. Inkson, M.D., Surgeon-Major A.M.D., of a son.
JOHNSTON.—On September 9, at 3, Albion-place, Maidstone, the wife of John Johnston, M.R.C.S. Eng., of a son.
MILLER.—On September 10, at Hampstead-hill-gardens, the wife of Andrew Miller, M.D., of a son.
PARAMORE.—On September 6, at 18, Hunter-street, Brunswick-square, W.C., the wife of Richard Paramore, M.R.C.S. Eng., of a son.
PEARSON.—On September 10, at 23, Upper Phillimore-gardens, Kensington, the wife of David R. Pearson, M.D., of a daughter.
ROTH.—On September 9, at Grand Parade, Brighton, the wife of Bernard Roth, F.R.C.S., of a son.

MARRIAGES.

ARMSTRONG—PITTAR.—On September 9, at Ulverstone, James Armstrong, M.B., of Liverpool, to Margaret Rebecca Pittar, only daughter of the late William Pittar, of Penny Bridge, Ulverstone.
BROWN—CLAY.—On September 10, at Clapton, F. Wheeler Brown, M.R.C.S. Eng., of 56, Rectory-road, Stoke Newington, to Alice Maude, youngest daughter of Charles Thomas Clay, of Clapton-square.
CROWDY—RONALDS.—On September 4, at Edinburgh, Frederick Hamilton Crowdy, M.B., Highgate, London, to Eliza Anderson, daughter of Edmund Ronalds, of Bonnington House, Edinburgh.
DAVIDSON—DEANE.—On September 11, at Streatham, Charles Davidson, M.D., of Coventry, to Ellen, fourth daughter of the late Edward Deane and Mrs. Deane, Fernleigh, Leigham-court-road, Streatham.
DREW—BOND.—On September 10, at Plymouth, G. F. A. Drew, M.R.C.S. Eng., Fleet Surgeon, Portsmouth, to Eliza Jane Bond, of Plymouth, eldest daughter of the late George Bond, of Elmham, Norfolk.
PAGE—BRAITHWAITE.—On September 9, at Kendal, David Page, M.D. Edin., to Caroline, daughter of G. Foster Braithwaite, J.P., Hawesmead, Kendal.
PAGET—FARE.—On September 4, at Bromley Common, Kent, Henry Marriott Paget, third son of Robert Paget, Esq., of 19, Lloyd-square, London, to Henrietta, third daughter of William Farr, M.D., F.R.S., of Southlands, Bickley.

ROSS—HARRIS.—On September 9, at Worthing, R. Alexander Ross, M.R.C.S.E. and L., to Edith Ellen, elder daughter of Pierre Harris, Edmonstone House, Worthing.

SHANN—HOARE.—On September 11, at Tunbridge Wells, the Rev. Reginald Shann, son of George Shann, M.D., of York, to Elizabeth, youngest daughter of the Rev. Edward Hoare, Vicar of Trinity Church, Tunbridge Wells.

SEALY—PACKER.—On August 19, at Barbadoes, John Sealy, M.D., Member of the Legislative Council, and eldest son of Sir J. Sealy, K.C.M.G., to Sarah Amelia, third daughter of Charles Packer, Esq., Chief Justice of the Colony.

SHUTTLEWORTH—HADWEN.—On September 10, at Lancaster, George E. Shuttleworth, M.D., Med. Sup. Royal Albert Asylum, Lancaster, to Edith Mary, eldest daughter of Henry Hadwen, Esq., of Ashfield, Lancaster.

TRIBE—HOLDER.—On September 10, at Chatbam, Herman Thomas Bedingfield Tribe, L.F.P.S. Glasg., to Alice Mary, second daughter of S. C. Holder, of H.M. Dockyard, Chatham.

WALLIS—PEARSON.—On August 28, at Hull, John A. Wallis, M.D., of Whittingham, Preston, Lancashire, to Marie Louisa, daughter of the late Wm. Hunt Pearson, Esq., of Hull.

DEATHS.

BENNETT, WILLIAM, M.R.C.S., at Kingston Villa, Leatherhead, on September 3, in his 70th year.

COWARD, JAMES EYRES, M.R.C.S.E., L.S.A., late of Middelburg, South Africa, at 22, Queen-street, Huddersfield, on September 14, aged 64.

DANN, H. T., M.R.C.S. Eng., Surgeon-Major H.M. Bombay Army, on board the *Kashgar* (ss.), on August 4, aged 44.

INGLIS, J. GORDON, M.D., C.B., Surgeon-General A.M.D. (retired), at Honaria, Beaumont, Jersey, on September 6, aged 63.

STEWART, the elder twin son of Professor Grainger Stewart, M.D., at Rommano House, Peeblesshire, on September 9, aged one week.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BIRMINGHAM GENERAL HOSPITAL.—Candidates must be graduates in medicine of a University by examination, and Fellows or Members of the Royal College of Physicians in London; but twelve months from the date of election will be allowed for obtaining the F.R.C.P. or M.R.C.P. Applications, accompanied by diplomas or certificates of registration and original testimonials, to Wm. T. Grant, House-Governor, on or before September 29.

KENT AND CANTERBURY HOSPITAL.—House-Surgeon. Candidates must be duly registered, unmarried, and not more than forty years of age. Applications, with testimonials, to the Secretary at the Hospital, from whom further particulars may be obtained, on or before September 26.

MANCHESTER ROYAL INFIRMARY.—Honorary Assistant-Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England. Applications, with diplomas, original testimonials, and a certificate of age, to the "Chairman of the Board," on or before September 20.

UNION AND PAROCHIAL MEDICAL SERVICE.

*. The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Middlesbrough Union.—Mr. R. F. Mackenzie has resigned the First District: area 1050; population 29,000; salary £100 per annum.

Wisbech Union.—Mr. J. Hemming has resigned the Eleventh District; area 7980; population 1901; salary £40 per annum.

Williton Union.—The Porlock District is vacant; area 16,642; population 1096; salary £45 per annum.

APPOINTMENTS.

Bourn Union.—James B. Watson, L.F.P.&S. Glasg., L.S.A., to the Bourn District.

Bury St. Edmunds.—Mr. James Napier as Analyst for the Borough.

West Derby Union.—Henry Wilson, M.R.C.S. Eng., L.S.A., to the Allerton District.

Hartlepool.—Mr. A. J. M. Edger as Analyst for the Borough.

Malton Union.—James Hartley, L.R.C.P. Edin., L.R.C.S. Edin., to the Leavening District.

Narberth Union.—Wm. C. Evans, B.M. and M.C. Univ. Edin., to the Begelly District.

Newton Abbot Union.—James Adams, M.D. Aber., M.R.C.S. Eng., to the Islington District. Henry A. Hodson, L.R.C.P. Edin., M.R.C.S. Eng., to the Bovey Tracey District.

Wigton Union.—John Furness, L.F.P.&S. Glasg., to the Caldbeck District.

CAMBRIDGE SANITARY SCIENCE CERTIFICATES.—The next examination for Sanitary Science Certificates at Cambridge will begin on Tuesday, October 7. Candidates (who must be on the Medical Register of the United Kingdom) should send their applications to Professor Liveing, Cambridge, before the end of September.

LÉGION D'HONNEUR.—The following nominations to the grade of Officier have been made:—MM. Broca, Member of the Académie de Médecine and Professor of the Faculté de Médecine de Paris; Lacaze-Duthiers, Member of the Académie des Sciences and Professor of the Faculté des Sciences, Paris; Dr. Horteloup, Chirurgien des Hopitaux, Paris; and Dr. Dumesnil, Inspecteur-Général des Etablissements de Bienfaisance.—*Bull. de Thérap.*, August 15.

THE PUBLIC HEALTH.—According to the Registrar-General's return of births and deaths in London and in twenty-two other large towns of the United Kingdom for last week, 5648 births and 3098 deaths were registered. The mortality from all causes was at the average rate of 19 deaths annually in every 1000 persons living. The annual death-rate was 17 per 1000 in Edinburgh, 18 in Glasgow, and 31 in Dublin; small-pox caused 6 deaths in Dublin. The annual rates of mortality per 1000 in the twenty English towns, ranged in order from the lowest, were as follow:—Oldham, 14; Plymouth, 15; Bradford, Sheffield, and Leeds, 16 each; Birmingham, Wolverhampton, and Portsmouth, 17 each; Hull, London, and Leicester, 18 each; Salford, Brighton, and Bristol, 19 each; Manchester, 20; Norwich, 20; Newcastle-upon-Tyne, 21; Nottingham, 22; Sunderland, 22; and the highest rate, 26, in Liverpool. The annual death-rate from the seven principal zymotic diseases averaged 4 per 1000 in the twenty towns, and ranged from 1·2 and 1·4 in Portsmouth and Plymouth, to 5·7 and 5·8 in Liverpool and Leicester. The deaths referred to diarrhoea in the twenty towns, which had been 343 and 293 in the two previous weeks, further declined last week to 275. The annual death-rate from this disease averaged 1·9 per 1000 in the twenty towns, but was equal to 3·3 both in Leeds and Leicester. Small-pox caused 3 deaths in London, but not one in any of the nineteen large provincial towns.

THE INHABITANTS OF CENTRAL RUSSIA.—From a paper in the *Presse Méd. Belge*, August 31, by Dr. Wilmart, who has resided in Central Russia, we extract the following particulars:—The peasantry, he says, have been incorrectly represented as of herculean build, they being, as a rule, of the middle height and below this. They are of very nervous temperament, of slight endurance, passing rapidly from enthusiasm to discouragement. They will not submit to the slightest operation without chloroform, they can bear only very small doses of medicine, and even slight inflammatory affections are soon complicated by delirium, convulsions, etc. Steeped in ignorance, and possessed of little power of moral resistance, they readily abandon themselves to the deepest melancholy, easily yielding to the impulse to suicide, especially by drowning. The stranger is much struck by the complete absence of the lame and deformed amidst this population, which the seigneurs attribute to the habit that prevails of swaddling the infants very vigorously. But this absence of the weakly is much better explained by the terrible mortality of young infants which takes place, and which, on the principle of the survival of the fittest, only leaves the strong alive. There is scarcely a peasant who has not had her ten infants, of whom four or five at most attain adult age. The vigorous winters carry numbers off, exposed as they are to its influence even from the period of baptism soon after birth in the cold bath. Among the diseases of the peasantry, those of the nervous system hold the first rank, hysteriform neuroses prevailing equally among men and women. Pain is a prominent symptom, and large quantities of opium are taken for its relief. Anæmia is very prevalent, especially among females. The men suffer greatly from chronic gastro-enteritis and hæmorrhoids, but caries of the teeth occurs with the greatest rarity. In the spring time, owing to the character of the soil, when outdoor labours begin, malarial affections are universally present. For a great part of the year the peasants are shut up in their close, unventilated dwellings, and fed upon scanty and unwholesome diet, and during the short summer they are overworked.

MARRIAGES IN FRANCE.—Among 100 marriages in France, 84 take place between celibates, 4 between celibates and widows, 8 between widowers and celibates, and 4 between widowers and widows. As compared with other countries, in 100 marriages in France the number between widows and celibates is 8·18; in England, 8·60; in Italy, 9·86; in Prussia, Bavaria, and Holland, nearly 11; in Württemberg, 12; in Austria, 13; and in Switzerland, 17.—*Union Méd.*, September 2.

EARLY PREGNANCY.—At the St. Petersburg Medical Society, Dr. Massmann stated that he had recently examined a young Russian girl, fourteen years of age, who was eight months advanced in pregnancy. She is completely developed, but has never menstruated. Dr. Horwitz referred to a case which he had published—that of a girl who had menstruated at ten years of age, and gave birth to a child in her twelfth year.—*St. Petersburg. Med. Woch.*, August 23.

SOUTH LONDON SCHOOL OF PHARMACY.—The public opening of this School for the session 1879-80 took place on Tuesday, the 16th inst. There was a large muster of students present, and a greater number of visitors than usual. The Secretary, Mr. W. Baxter, read the annual report and presented the medals awarded last term to the following successful competitors:—Senior Chemistry, Mr. Crook; Junior Chemistry, Mr. Roughton; Botany, Mr. Sagar; Materia Medica, Mr. Harburn; Pharmacy and Dispensing, Mr. Parkin.

HOLIDAY TRIPS FOR SICK PAUPER-SCHOOL CHILDREN.—Interest has begun to be taken in Germany in a new field for philanthropic exertion by the adoption of the holiday-colonies of sick poor children first introduced into Zurich by Pastor Brion in 1876. At the suggestion and under the management of Geh.-San.-Rath Dr. Varrentrapp, the city of Frankfort-on-Maine first followed this good example in 1878 by taking ninety-seven poor sick schoolboys away from their damp dwellings and insufficient food, sending them into the fresh air of the mountains and woods, and supplying them with abundance of good plain food. The experiment turned out so well that this year 138 such children, forty-eight being girls, have been sent out under the charge of seven masters and four governesses, distributed into eleven "colonies," and remaining in the invigorating air of the different localities selected for twenty-five days. The report as to the result of this second trial of the plan is most encouraging, and will no doubt lead to many other places following the example set.—*Veroff. d. K. Deutsch Gesundheit.*, September 1.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN AUGUST, 1879.—The following are the returns (by Dr. Meymott Tidy) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, etc.	Nitrogen: As Nitrates, etc.	Ammonia.		Hardness. (Clarke's Scale.)	
				Saline.	Organic.	Before Boiling.	After Boiling.
<i>Thames Water Companies.</i>	Grs.	Grs.	Grs.	Grs.	Grs.	Degs.	Degs.
Grand Junction ...	20·20	0·120	0·120	0·000	0·011	15·2	5·0
West Middlesex...	20·90	0·149	0·120	0·000	0·011	15·7	4·8
Southwark and Vauxhall ...	20·50	0·109	0·105	0·000	0·006	15·7	4·8
Chelsea ...	20·00	0·101	0·090	0·000	0·010	14·7	5·4
Lambeth ...	20·60	0·123	0·135	0·000	0·010	16·3	5·3
<i>Other Companies.</i>							
Kent ...	29·00	0·028	0·420	0·000	0·002	19·8	5·8
New River ...	20·20	0·107	0·129	0·000	0·004	15·4	5·0
East London ...	20·70	0·073	0·111	0·000	0·008	15·2	5·8

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours.

The water was found to be clear and nearly colourless in all cases.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—*Bacon.*

Philo, Yorkshire.—A hospital on the "circular system" is being erected at Antwerp, and some similar hospitals exist in America, but up to the present time none have, we believe, been erected in England.

Quinine in the United States.—A New York paper states that chills and fever in the United States become less alarming through the passage of an Act of Congress taking off the duties on quinine. There are about four manufactories of this medicine in the United States, the two largest being in Philadelphia. These establishments have grown immensely rich upon the profits of a single drug, the importation of which has been virtually prohibited by the present tariff.

The Mettray or Cottage Home System.—This system is to be applied for the children of the Kensington and Chelsea district schools upon a liberal scale. Thirty-three detached buildings are in course of erection on Epsom Downs for the purpose. The children to be educated in these "homes" are to be separated into groups of twenty girls and thirty-two boys for each house respectively. The total number of beds is limited to 680. The scheme includes a clothing store and needle room in a separate building, where the girls will be taught both cutting and making up. Sanitary precautions will also be strictly observed. New comers will not be admitted to the "homes" until they have been in probationary wards, under the supervision of the medical officer, to ascertain if they are free from infectious disease.

The Adulteration Act: a New Point.—At the Lambeth Police-court, lately, a milkman was summoned for refusing to sell to an inspector for analysis milk which he was carrying in a can for public sale in the streets. The defence was that the milkman could not be convicted, as the milk was not, under the terms of the section, "exposed for sale in a shop, premises, or stores." The magistrate, though unwilling to take that view, said he must hold the objection fatal to the prosecution, but he granted a case for a superior court.

Bolton New Infirmary.—Dr. Fergus Ferguson, one of the trustees of the late Dr. Chadwick, of Bolton, laid the stone of the children's ward of the new Bolton Infirmary on the site west of Bolton-park, a few days since. Dr. Chadwick gave £5000 towards the endowment of a children's hospital, and the building of this is now in the hands of the architect. The Infirmary, it is estimated, will cost about £22,000. The children's wards are to contain eight beds, and there are to be connected lavatories, etc., with the rooms for the night and day nurses.

River Pollution: Heavy Damages.—At the Stafford Assizes, lately, the jury gave £1400 damages to Samuel Patton, recently the proprietor, and then a tenant, of silk works upon the river Churnet, in compensation for loss sustained at the hands of the Potteries Waterworks Company, who, by erecting a reservoir near to Leek to receive the water of that river, had destroyed its transparency and had thus prevented the plaintiff from dyeing delicate colours. The plaintiff claimed £5000. Defendants had paid £25 into court to cover any loss plaintiff might have sustained if it was decided that he had a right to recover.

How Port Wine is Made.—According to Mr. H. L. Feuerheerd's evidence before the Select Committee on the Wine Duties, the wine is produced in the Douro district in Portugal. The grapes are gathered towards the end of September and the beginning of October, and selected in the proportion of one-fourth of white grapes to three-fourths of red. These are put into large vats, and trodden by men. The juice or "must" is then drawn off into casks called "tonels," and allowed to ferment. The "sweetness" or "dryness" of the wine varies according to the length of time during which fermentation is allowed to proceed. A strictly natural wine ferments till all the sugar is consumed, and is therefore very "dry." In the case of sweeter wines, the fermentation is arrested at an earlier or later stage by the addition of a certain proportion of alcohol, which may be repeated twice or thrice if necessary. In order to make a very rich sweet wine acceptable to the people of this country, five gallons per pipe of brandy is added to the juice before fermentation commences. This insures the retention of a certain proportion of sugar unaltered, and further additions of alcohol are made subsequently. The whole process occupies about two years.

Sherry.—The following points of interest about sherry have been culled from Mr. F. W. Cosens' evidence before the Select Committee on the Wine Duties:—The term "sherry" is applied to the different wines from Xeres, Seville, and San-Lucar, as a generic term. Spirit distilled from wine is added to it during manufacture to preserve it, but if it is made for consumption on the spot, little or none is necessary. It would, however, be running considerable risk to import it into this country without fortification. Wine without added spirit will run up to about 30° of strength, therefore the limit of 26° fixed for the wine duties should be altered. If the wine to be imported is to be cheap, it must be shipped young and fortified; but if it remains in Spain it will not require fortification. Manzanilla wine comes from San-Lucar. It requires quite as much fortification as Xeres wine. The spirit used for fortification is distilled from the grapes; for the commoner wines, however, a cheaper German spirit is used. The common wines require more fortification than the good ones. The strength of sherry is no test of its goodness. The best has a strength of 30° to 32°, and is worth £70 per butt. As the strength increases the value diminishes. Our cold damp climate is unfavourable to the preservation of sherry. If kept a long time in the cellars at the docks, it loses its strength, and acquires what is known as a "dock flavour." The strength of wine may increase by natural development. A sample of wine kept in a cask in Spain for twenty-eight years had increased from 26° to 43°, and some in bottle for the same period had increased from 26° to 28°. The wine drunk by the workmen at Xeres is of 32° strength. They are healthy and robust, and drunkenness is extremely rare amongst them.

Tea Poisoning.—Our contemporary the *Guardian* states that "In the recent Zulu campaign Lord William Beresford had a horse poisoned by tea, given to it dry, by mistake, with fodder. It was eaten greedily, and produced the most startling effect. The animal plunged and kicked and ran backwards, at intervals galloping madly around, and finally fell into a donga, where it lay dashing its head on the rocks, and was despatched by an assegai-thrust through the heart. The post-mortem appearances indicated 'extreme cerebral congestion.'"

Various Urban and Rural Sanitary Works.—The Sanitary Authority of Kingsbridge are about to carry out plans for sewerage and outfall works for the towns of Kingsbridge and Dodbrook.—The Corporation of Dublin has decided, in consequence of the limitations to loans which will be enforced by the new Public Health Act, to make immediate application to the Local Government Board of Ireland for a loan of £100,000, in order to complete the paving of the city.—The Town Council of Lincoln are

about to erect a pumping station and other sewerage works.—A public mortuary is being erected for the Hornsey and Crouch End Local Board.—The Local Board of Leyland, Preston, are taking steps for getting a good water-supply for the district.—The Vestry of the parish of St. George-the-Martyr, in the Borough, has adapted, at considerable expense, the churchyard as a public garden. The churchyard is in the midst of a dense and poor population, and as a public garden the churchyard will be a great boon to the neighbourhood. A new mortuary is being erected on the ground.—The town of East Grinstead is being drained at an estimated outlay of £6000.—The Doncaster Workhouse Committee have submitted to the Board their decision as to the alterations and additions to the Workhouse, which include forty additional beds in the infirmary and a new hospital for infectious and contagious diseases.—The Dorchester Town Council have ordered a scheme to be prepared for the remodelling of the drainage of the town.—A new dispensary and cottage hospital have just been completed on the Crofts at Ross, Herefordshire, at an outlay of about £2300.—The Haslington Local Board have amended their by-laws, and require the width of all front streets to be, in future, thirty-five feet, back streets twelve feet (instead of ten feet), and 150 feet square to be provided in all back yards.—The visiting justices of Lancashire have accepted a tender for the proposed addition to the County Lunatic Asylum at Lancaster at a cost of £62,050. The building will accommodate 600 patients.—Temporary buildings are being erected for the Bristol Medical School at Tyndall's-park, near the site of the new University College. They will include museum, lecture, and dissection rooms.—The Local Board of Aspull, near Wigan, has obtained the sanction of the Local Government Board to borrow £9000 for sewerage works.—The Committee of the Hertfordshire Convalescent Hospital has decided to erect a new building on an elevated site at Bopeep, Hastings, at a cost of £4627. The building will accommodate forty patients.—The Dukinfield Local Board has ordered plans to be prepared for works to intercept and purify the sewage of the town at an estimated cost of £60,000.

A Sweet Parish Infirmary, London.—The Local Government Board, in their report for the year 1878-79, thus refer to the Infirmary at Newington:—"There are no day-rooms for the sick, nor airing yards; there is one bath-room; but there is no hot water supply; there are no lavatories, nor any separate kitchen for the infirmaries; there are no sick wards for the children. There is a detached building here in which there are six cases of small-pox. This building is wholly unfit for the purpose to which it is dedicated. There are no paid night nurses. The whole of these wards are insufficiently ventilated."

A Practitioner in the Suburbs.—By the new Poor-law Amendment Act power is given to the Metropolitan Asylums Board to contract with any local authority in the metropolis for the reception and maintenance in any hospital belonging to the Board of any person suffering from any dangerous infectious disorder. Also, the Metropolitan Asylums Board may provide ambulances for the conveyance of persons suffering from dangerous infectious diseases. There is a provision in the same Act that any buildings or hospitals vested in guardians may be vested in them, as the rural sanitary authority of such union, and used as "infectious hospitals."

Anglicanus.—Yes, it has hitherto been the custom, in the French hospitals, to ask every patient on admission to what religion he belonged, and according to his answer this religion was notified at the foot of the bed underneath his name. M. Herold, Prefect of the Seine, deeming the system a pressure on poor sick people to declare themselves Catholics, has abolished the notification alluded to, and prescribed an important alteration in the form of a question put to the incoming patient, who is now asked whether he wishes to make any declaration on the subject of religion, and at the same time told that there is no obligation to do so. After this caution the priests of whatever religion he professes are freely admitted to visit him.

Disposed to find Fault.—A correspondent, writing on the Medical Department of the war, states:—"Seeing complaints have one time or another gone home against the Medical Department, both of neglect and bungling, it may be noticed, first, that every combatant officer will find fault with the medical staff if he possibly can do so; and next, that there are not a few who, preferring the old regimental system, would not be sorry to see the new one, represented by the Army Medical Department, coming to grief. Here, then, are two special reasons why it is only too likely that prejudiced views may get home to England with regard to the working of the medical arrangements. The staff employed throughout the network of hospitals may be summed up thus: 125 medical officers of the Army Department and Civil Surgeons, with nine officers, and some four hundred non-commissioned officers and privates of the Army Hospital Corps." After describing the arrangements of the Army Medical Department, and giving a graphic account of the difficulties and the enormous amount of work to be done by the Department, the writer concludes—"I think that the work, on the whole, has been excellently done. Many names might receive 'honourable mention' in connexion with this important Department, which is only too apt to be overlooked when the mind of the public is concerned with the active operations in the field. When honours are distributed it is earnestly to be hoped they will not be forgotten."

Board Wages for Medical Men.—The Bethnal-green Board of Guardians have recently had under discussion the question—What is the lowest amount per week on which a doctor may exist? The point was raised on a motion that the sum of 12s. a week be allowed to the medical officer of the work-house in lieu of rations. Lately the quantity of fruit consumed by the doctor had been the subject of observation, and the allowance proposed would, it was urged, have the effect of putting a stop to complaints on that score in future. After several guardians had expressed their views on the question, the Board was reminded that the Local Government Board allowed only 8s. a week for the maintenance of the assistant medical officer; and therefore it was contended that not more than that sum should properly be allowed for seven days' food for the principal doctor. Finally the Board rejected the motion for the proposed allowance instead of rations.

COMMUNICATIONS have been received from—

Dr. SPARKS, Crewkerne; Dr. J. P. IRVINE, Ingletton; Messrs. Wood and Co., New York; Messrs. MAY-DAVIS and Co., Westminster; Mr. D. COLQUHOUN, London; Mr. E. DUKES, Canonbury; REGISTRAR-GENERAL, Edinburgh; REGISTRAR OF APOTHECARIES' HALL, London; Surgeon-Major F. R. HOGG, Netley; Mr. CLEMENT HOLDHAM, London; Dr. C. MEYMOTT TIDY, London; Mr. Wm. GILL, Plymouth; Dr. ALFRED SANGSTER, London; Mr. HENRY MORRIS, London; Mr. R. W. PARKER, London; Dr. DRUITT, London; Mr. POSTGATE, Birmingham; Messrs. S. M. BURBOUHS and Co., London; Mr. J. E. INGPEN, London; Mr. W. BAXTER, London; Dr. J. W. GILLERPIE, London; Mr. W. KNELL, London; Dr. G. J. BRANEY, London; Miss CLARKE, South Kensington; Dr. J. W. BLACK, Edinburgh; SECRETARY OF ST. JOHN'S HOSPITAL, London; Mr. J. CHATTO, London.

BOOKS AND PAMPHLETS RECEIVED—

Observer, The Weather and Climatic Changes—B. Joy Jeffries, A.M., M.D., Colour-Blindness, its Dangers and its Detection—Report of the Stafford House Committee, Russo-Turkish War, 1877-78—Transactions of the Medical Society of the State of New York for the Year 1879—A Treatise on Hygiene and Public Health, edited by Albert H. Buck, M.D., 2 vols.—J. D. Tholozan, Les Trois Dernières Épidémies de Peste du Caucase—Gordon Holmes, L.R.C.P. Edin., A Treatise on Vocal Physiology and Hygiene—Austin Flint, M.D., Clinical Medicine—Thirty-third Report of the Commissioners in Lunacy to the Lord Chancellor.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Revue Médicale Française et Étrangère—Louisville Medical News—Nature—Boston Medical and Surgical Journal—Gazette Hebdomadaire des Sciences Médicales de Montpellier—National Board of Health Bulletin—L'Union Médicale d'Orient—El Siglo Médico—House and Home—Analyst—Practitioner—Night and Day—Dublin Journal of Medical Science—Nautical Magazine—Boston Journal of Chemistry—American Bookseller—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Canada Lancet—Canadian Journal of Medical Science—New York Medical Journal—Revue d'Hygiène—Morningside Mirror.

APPOINTMENTS FOR THE WEEK.

September 20. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

22. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

23. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

24. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

25. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

26. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

QUEKETT MICROSCOPICAL CLUB (University College), 8 p.m. Meeting.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 13, 1879.

BIRTHS.

Births of Boys, 1193; Girls, 1195; Total, 2394.
Average of 10 corresponding years 1869-78, 2220·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	663	599	1262
Average of the ten years 1869-78 ...	651·6	625·3	1276·9
Average corrected to increased population ...	...	...	13·6
Deaths of people aged 80 and upwards ...	...	...	27

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West ...	561359	...	5	1	3	5	...	5	...	21
North ...	751729	1	4	9	2	4	...	4	1	26
Central ...	334369	1	3	2	1	5	...	1	1	11
East ...	639111	...	15	12	1	15	...	2	...	32
South ...	967692	1	6	14	6	13	1	6	1	44
Total ...	3254260	3	33	38	13	42	1	18	3	134

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29·578 in.
Mean temperature ...	...	...	...	...	...	57·6°
Highest point of thermometer ...	...	...	...	...	...	69·2°
Lowest point of thermometer ...	...	...	...	...	...	47·8°
Mean dew-point temperature ...	...	...	...	...	...	52·5°
General direction of wind ...	...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	...	0·72 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Sept. 13, in the following large Towns:—

	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Sept. 13.	Deaths Registered during the week ending Sept. 13.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		In Inches.	In centimetres.
Boroughs, etc. (Municipal bound- aries for all except London.)										
London ...	3620868	48·0	2394	1262	69·2	47·8	57·6	14·23	0·72	1·83
Brighton ...	105608	44·9	72	39	67·6	48·0	57·3	14·06	1·06	2·69
Portsmouth ...	131821	29·4	75	44	...	...	...	...	...	...
Norwich ...	85222	11·4	49	33	71·0	50·0	57·4	14·11	0·31	0·79
Plymouth ...	74293	53·3	41	21	65·0	52·7	56·7	13·72	1·54	3·91
Bristol ...	209947	47·2	154	78	...	...	...	...	...	...
Wolverhampton ...	75100	22·1	46	24	65·3	45·3	53·6	12·01	1·02	2·59
Birmingham ...	388884	46·3	283	123	...	...	...	...	...	...
Leicester ...	125622	39·3	92	44	67·8	47·0	55·0	12·78	1·16	2·35
Nottingham ...	169396	17·0	108	70	71·3	46·3	56·7	13·72	0·44	1·12
Liverpool ...	538333	103·3	423	264	64·8	48·3	54·6	12·56	1·81	4·60
Manchester ...	361819	84·3	251	136	...	...	...	...	...	...
Salford ...	177849	34·4	131	65	...	...	...	...	...	...
Oldham ...	111318	23·9	89	30	...	...	...	...	...	...
Bradford ...	191046	26·5	91	57	67·0	50·7	56·2	13·44	0·80	2·03
Leeds ...	311860	14·5	214	98	65·0	49·0	55·7	13·17	1·02	2·59
Sheffield ...	297138	15·1	188	93	67·0	48·0	56·2	13·44	0·99	2·51
Hull ...	146347	40·3	97	50	...	...	...	...	...	...
Sunderland ...	114575	41·4	86	49	71·0	49·0	57·3	14·06	0·51	1·30
Newcastle-on-Tyne ...	146948	27·4	104	60	...	...	...	...	...	...
Edinburgh ...	226075	53·9	130	73	...	...	...	...	...	...
Glasgow ...	578153	95·8	322	198	68·0	46·8	56·6	13·67	0·89	2·26
Dublin ...	314666	31·3	198	157	64·3	44·1	54·6	12·56	1·33	3·38
Total of 23 Towns in United Kingdom	8502896	38·6	5648	3098	71·3	44·1	56·1	13·39	0·97	2·46

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·58 in. The lowest reading was 29·37 in. on Tuesday morning, and the highest 29·90 in. on Wednesday evening.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

ABSTRACT OF LECTURES ON THE
PLAGUE EPIDEMIC IN THE YEAR 1878-79
IN ASTRACHAN,*Delivered before the Berlin Medical Society on June 18
and July 2, 1879,*By PROFESSOR HIRSCH, of Berlin,
Member of the late German Plague Commission.

GENTLEMEN,—Nearly two years ago I had the honour in this place of discussing the question, What amount of danger of an invasion of plague had Europe to undergo by the recent outbreak of the plague in Mesopotamia and Persia? As you know, the apprehensions of which I then spoke have been realised more quickly than I myself expected. I had the satisfaction of approaching nearer that interesting disease,—although not so near as I could have wished, still nearer than it had ever before been possible for me. As you know, towards the end of last year there had manifested itself at several spots of Astrachan a disease whose nature was for some time doubtful to the medical men of the place, but which showed itself afterwards to be nothing else than true oriental bubonic plague. You know that in the end of December, 1878, the news of the outbreak of that murderous disease caused a panic throughout almost the whole of Europe, and several European governments were moved to ask the Russian Government whether it would be inclined to afford an opportunity to scientific experts to inquire into the conditions of the places where the disease existed. The Russian Government speedily gave the necessary permission, and sent out invitations to the proposed scientific expeditions to visit the places affected. From the German Empire, I, together with Dr. Kussner, *privat-docent* at Halle, and Dr. Sommerbrodt, had to undertake the task of making that scientific excursion into the plague district of Astrachan. I may confess that we undertook our task with a certain amount of embarrassment. We knew that the disease had already nearly come to an end; and therefore we could not expect to make observations on the form and progress of the disease as they might have been made had the circumstances been exceptionally favourable—or, to speak more truly, unfavourable. Moreover, I may add that neither side was to blame for the delay of the expedition. The Russian Government had received more detailed reports on the disease only when the epidemic had reached its height. The preparations for the journey and the communication between the governments occupied some time, and we did not until towards the end of February (old style) reach the place which had been the very centre of the disease—namely, Wetljanka.

Another reason for doubting somewhat the success of the scientific expedition was the total want of knowledge of the native language on our part; and, further, there was the doubt whether we should be welcome guests in Russia—whether the Russian Government would be inclined to allow us full insight into the conditions where instruction was wanted, and to provide us with the means indispensable for such an investigation. Our scruples in the last-named directions have been without foundation, inasmuch as a very able dragoman who was given us, and who showed himself to be quite at home with the Russian conditions, served us very well with regard to the language; and the Russian Government not only put no obstacle in the way of our inquiry, but was, on the contrary, willing to give us any information that might be desired on the situation in question. Still, our apprehensions proved to be only too well founded with regard to the opportunities that we enjoyed for studying the disease. We have not seen many patients, and we have not arrived at sure results in regard to the causes and the mode of propagation of the disease. Still, some interesting material has been collected; and I will lay before you, in a general review of the whole progress of the epidemic, some of the more remarkable points in its history.

The tragedy in Astrachan occurred in six different places—three on the right, and three on the left side of the Volga.

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Allow me to direct your attention first to the topographical relations of that country, which are of some interest in judging of the spread of the disease.

Astrachan forms a large steppe traversed by the Volga. The right bank is steep, with an elevation of ten to fifteen metres above the river-bed. The left bank is flat; at one part only two hills of any significance are to be seen. A heavy loam mingled with sandstone, in some parts rich in salt, forms the soil of the steppe. At some spots the salt lies on the surface, or pervades the soil in broad layers. The subsoil consists of clay—the same alluvial clay which forms the bed of the Caspian Sea and of the Volga. The climate is decidedly continental, with very cold winters and very hot summers. The summer is, in such a huge treeless plain, very dry, and the culture of the soil depends upon the above-named geological and climatic conditions. Corn is cultivated, as I know, only in the north-eastern district (Zazew); but in the spring the steppe is covered with a luxuriant flora, especially with plenty of herbage for fodder, so that cattle-breeding is carried on extensively. Fishing and salt-production are the two principal sources of industry, and from them a certain amount of social prosperity arises, in which the whole population participate more or less. Even wealth is met with, especially in the places inhabited by the Cossacks. The population of the country is very mixed. The principal position is occupied by the Russians, Cossacks, Kirgosians, Kalmucks, with Tartars in the southern district; the pariahs or proletarians are the Kalmucks, who inhabit especially the steppe. As I have just said, there is a certain amount of welfare amongst the people; and we see some comfort in the disposition of the places, streets, and houses. After the distressing accounts which have been spread respecting the country, we were surprised to find comparative comfort in the life, and especially the dwellings, such as we had not in the least expected. But we will not deny that the Russian Government had some interest in showing us the places visited by us in the best possible light, and that the streets and houses were therefore cleansed before our arrival. The places we saw in our journey through the steppe were all remarkable for the excellent arrangement of the streets, which are large, straight, and well ventilated, and for the comfortable and well-arranged construction of the houses. Each house is in the form of a sort of closed court, with a court-yard, a coach-house, and a stable for the cattle. Before every house there is a small verandah. All are built of wood. The rooms have some pretension to luxury, and the furniture also is neat. All this speaks of a certain amount of comfort, and some taste for the amenities of life. Further, it is to be noted that in many courts beside the house there were found cool rooms, constructed of hurdle-work, intended to lodge the family during the summer. I mention these facts in order to dispel a very prevalent prejudice, which tended to refer the origin of the plague to the bad hygienic conditions of the country. As I said before, it cannot be denied that the cleanliness of the places was perhaps better after our arrival than it had been before, and that the "*watages*"—that is, the places for gutting and salting fish—showed hygienic evils to a large extent. But neither can the origin of the disease be explained in this way, nor the fact of its being confined, as an epidemic disease, to one place only—that is, to Wetljanka,—for the same conditions had existed there for many scores of years without any outbreak of plague, and this village did not present more unfavourable hygienic conditions than many of the surrounding villages which perfectly escaped.

The prevailing diseases of that district of the Volga are malaria, inflammatory attacks of the respiratory organs, rheumatism, and syphilis; and scrofula is also to be found to a large extent. Of epidemic diseases, as they have been observed during the course of the last ten years, scarlet fever, enteric fever, and cholera have played the foremost parts. As for the plague, it is established, beyond doubt, that the last outbreak of it occurred in the year 1807-1808. At that time the disease was very probably brought from Asia—as I have been told, by pilgrims from Mecca—and spread extensively along the river Volga as far as the province of Saratow. But there were everywhere comparatively few cases, so that the mortality did not greatly exceed one hundred in the whole district, according to trustworthy information.

Finally, I have to explain in a few words the singular condition of the medical administration of the country during

the plague epidemic in the year 1878-1879, which is indispensable to a clear understanding of the facts.

Wetljanka is a so-called *stanitza*—that is, a village inhabited by Cossacks,—being one of eighteen of the same kind within the Astrachan government, having a special administration. The President, a general of the Cossacks, has his seat in the town of Astrachan, and mediates between those places and the Government Board. In sanitary affairs he is advised by a military surgeon of high rank, who is himself assisted by a few well-instructed surgeons. But the practice of medicine lies almost entirely in the hands of very badly educated medical artisans, who are called there “*feldscherer*,” and correspond in their medical acquirements nearly with our former second-class surgeons. They are almost the only representatives of the healing art in the *stanitzas*. The central Board receives from them the reports on the prevalent diseases, and sends out surgeons only in very urgent and difficult circumstances. The Russian Government gets information on the sanitary condition of the *stanitzas* by the Cossack administration only. Thus there exists a sort of dualism, which must naturally lead, in certain circumstances, to a very unhappy state of things. As far as I see, this has been the principal reason why such an epidemic could reign in that district, and especially at Wetljanka, for such a long time and in such disastrous proportions before energetic means for its prevention were taken by the Russian Government; and why the Government did not receive information respecting the state of affairs until the epidemic had already spread extensively in the place.

The plague was confined, as just stated, to six places, the centre being Wetljanka, which was the only place where the disease existed with the character of an epidemic. Scattered cases of disease and death also occurred in the villages of Prischib and Staritzkeje on the right, and Udatschucie, Michailowka, and Selitroucie on the left bank of the Volga. Selitroucie suffered the most, where thirty-two deaths occurred. It was not until December that the disease broke out in these places, having been imported from Wetljanka when it was in its highest stage of development.

The epidemic began at Wetljanka in the commencement of October. You will see from the list of mortality to be given immediately, that the disease spread very slowly at first. In the first six weeks there were only a few deaths from plague; it was the second week of December before the number attained any considerable height. In the eleventh week the epidemic reached its acme, and it fell during the next three weeks as quickly as it had risen. The last fatal case occurred on January 12. From October 1 till that day deaths were as follows:—

From	Deaths.	From	Deaths.
Oct. 1 to Oct. 7 . . .	1	Nov. 26 to Dec. 2 . . .	7
„ 8 „ 14 . . .	0	Dec. 3 „ 9 . . .	56
„ 15 „ 21 . . .	2	„ 9 „ 16 . . .	169
„ 22 „ 28 . . .	3	„ 17 „ 23 . . .	54
„ 29 to Nov. 4 . . .	0	„ 23 „ 30 . . .	33
Nov. 5 „ 11 . . .	1	„ 31 to Jan. 6 . . .	19
„ 12 „ 18 . . .	7	Jan. 7 „ 14 . . .	12
„ 19 „ 25 . . .	8		

I must, however, confess that this table of mortality is not to be considered as absolutely exact, because the church-registers were not kept after the death of the priest, which occurred in the middle of December, and because they could only be made complete afterwards by official research. On the whole there were 373 deaths at Wetljanka during the whole period. By subtracting the average number of deaths that occur (according to an average of several years) from October till January in that place, viz., fourteen, there remained 359 deaths from plague; in other words, in a population of about 1750 individuals, 20 per cent. of the whole succumbed to the disease. It is very difficult to arrive at the number of cases that recovered. According to very barely trustworthy statements, this was said to have been eighty-one. If those are added to the 359 deaths, we have a morbidity of 440—that is, 25·3 per cent. cases of illness amongst the inhabitants, with 82 per cent. deaths of the total number attacked.

After Wetljanka, Prischib was first attacked with the disease. Here the number of deaths was sixteen, which occurred in five houses. Afterwards there was a small outbreak of the disease in Staritzkeje, where seven individuals succumbed in one house. On the left bank two places had

only a few cases, namely, Michailowka, where in one house four cases occurred with three deaths, and Udatschucie, where in one house two individuals died of plague. Selitroucie suffered the most severely; here in four houses thirty-two individuals succumbed to the disease. It was said that in the steppe two plague-cadavers had been found, and that opposite to Wetljanka, in an island in the Volga, several mortal cases of plague had occurred amongst the inhabitants of Wetljanka who had fled there. It is impossible to make out whether those statements were well founded or not, but it might be not far from the truth if the total number of deaths from plague in the district were estimated at 450.

I must be brief in my description of the character and progress of the disease. We were not fortunate enough to observe any severe cases of plague. All that we know about them we have derived from the communications of the medical men, and from the reports of the survivors respecting the observations that they made on their friends. Scanty though those sources of knowledge were, we are bound to consider that we had to do with comparatively intelligent persons, and I find in the circumstance that there is a remarkable coincidence in the contents of the reports from the different observers, an evidence of the value of the results of our researches. We ourselves saw in Wetljanka only a few very slight cases of plague, which occurred after the end of the epidemic. The last of those cases, in several respects interesting, was observed in a girl ten years old, who fell ill about eight weeks after the last fatal case, and was observed during the whole course of the disease by Dr. Sommerbrodt.

After all that we have heard and seen of the disease there can be no doubt about its nature; it was decidedly the ordinary Levantine bubonic plague. All communications about a prevalent affection of the respiratory organs in the morbid process, or about a form of the disease similar to the plague of India or the “black death,” are erroneous.

I do not intend to discuss at present the question whether, as some maintain, the epidemic plague known by the name of the “black death” and the so-called “Indian plague” are identical with the Levantine bubonic plague; or whether they differ from each other, as I have assumed and still assume, by definite symptoms which reveal an affection of the lungs. Perhaps at another time I may return to that question; to-day I have only to say that the lung affection named had not the character of pneumonia, but of pneumorrhagia; and that in the course of the disease in the Astrachan epidemic no such complication either with pneumonia or with bleeding from the lungs could be observed. In a few cases only slight bronchitis seems to have been observed as a complication. Moreover, I will not deny that cases of pneumonia occurred at the time of the epidemic; only I do not believe that they had anything in common with the plague. As in all former plague epidemics, there are three forms to be distinguished, according to the degree of development of the disease. The first form is slight, partly without fever, a sort of ambulatory plague; where, without any other grave symptoms, a bubo was formed in the axillary, inguinal, or submaxillary glands, which soon supplicated or resolved, and where the whole process was terminated in that way. Cases of this form seem to have been more frequent, especially in the beginning and towards the end of the epidemic. Of those we saw ourselves a few, as I have just said. But, secondly, there was a series of cases of a graver character, where buboes were formed after an illness of several days, and where the whole organism was deeply affected. Most of the buboes in those cases became purulent, and recovery was only exceptional. A third series of cases was observed in the form of the so-called *pestis siderans*, where no localisation of the morbid process in the lymphatic system was formed at all, or the buboes were so small that they escaped the attention of the surgeons and the friends of the patients. Those cases proved fatal, without exception, in two or three days. I do not intend to give you further particulars of the form and course of the disease. If you should wish more detailed information in that direction, my colleague, Dr. Sommerbrodt, who has worked out that special part of our report, will have the kindness to give it to you.

No post-mortem examinations were made during the epidemic. At the time of the arrival of the commission at Wetljanka they found a boy two years old, who suffered from a suppurating bubo of the submaxillary glands and from

broncho-pneumonia, to which he succumbed shortly afterwards. The post-mortem of that case, performed by one of the members of the Austrian Commission, shows a series of pathological changes, which, in my own opinion, point out congenital syphilis—as, for example, chronic ulceration of the larynx,—and therefore it is questionable whether the bubo was not also of a syphilitic nature. At any rate, the anatomical investigation of the body, however interesting in itself, did not throw any light on the plague-process.

The cases of illness and death that occurred beyond the true focus of the disease—that is, beyond Wetljanka—are of special interest, because they furnished information on the term of incubation of the disease. The minimum has proved to be two or three days, and the maximum over eight days; but those short or long incubations have been exceptional. In the majority of cases—and where they have been well defined—four to five days elapsed between the infection and the outbreak of the disease, so that the average term of inoculation, counted from the total number of cases, is about five days.

One of the most important, but at the same time most difficult, questions we had to deal with was that of the origin of the plague in Wetljanka. The disease had either originated there spontaneously, or it had been imported from another place; and in the latter case it must have been brought directly or indirectly from Persia or Mesopotamia, because in those countries only had the plague showed itself during the previous year. There is no reason whatever for the assumption of an autochthonic origin of the disease in the Volga districts. Although it has been supposed by several authorities that the bad condition of public hygiene in that district, and especially at Wetljanka, had caused a spontaneous outbreak of that disease, there is really no necessity for a serious refutation of that opinion. Even when we grant that the hygienic conditions were not at all excellent there, it must not be forgotten that in 1878 they were not more faulty than they had been for many decades before, and that there had not been a trace of plague since the year 1807 in the Volga district. If one were inclined to trace the origin of the disease to such local nuisances, it would be absolutely incomprehensible why Wetljanka only should have had the misfortune to be visited by plague, because a large number of other places in the district showed the same or still worse hygienic conditions than this place which was decimated by the disease. I may add, perhaps, that there are many districts in Germany and other countries of Europe which are in that respect in no way better than Wetljanka, and which have never shown a spontaneous outbreak of plague. I have therefore not the slightest reason to assume an autochthonous origin of the plague at Wetljanka, and I may add that such a view has not been taken by any of the members of the different commissions.

There is much more ground for the supposition that the disease in Wetljanka originated by importation of the morbid poison from Persia, because, as is known, in the Persian town of Rescht and its neighbourhood, situated one (German) mile from the coast of the Caspian Sea, a severe epidemic of plague had raged, which broke out towards the end of the year 1876, and terminated at the end of the following year, perhaps only in the beginning of 1878. Introduction of the disease into the Astrachan district was the more possible, because, as I have learnt, the quarantine at Baku against importation from Persia was not established before April, 1877; the Russian sanitary boards at Tiflis declaring the disease of Rescht at first to be a malignant typhus with buboes, and denying the plague-nature of it. Still more ground for the opinion that the plague at Wetljanka had a genetic connexion with that Persian disease is derived from the fact that in the summer of 1877, in the town of Astrachan, a large number of cases had been observed, which showed a plague-like character, or were considered actually as plague, and which seemed to have constituted the transition from the plague epidemic of Rescht to the Wetljanka disease. I had before the beginning of my journey to Russia spoken in that sense to a medical society of our town on the origin of the disease at Wetljanka, and I was convinced, when I went to Russia, that my opinion would be confirmed. The following dates were derived for the most part from official communications, and from several reports of certain hospitals in the town; and the perusal of those reports made it possible to get a somewhat complete insight into that epidemic, of which I shall mention now

the most prominent facts. From July to September, 1877, 100 to 150 cases were observed in the town of Astrachan and the surrounding places. The disease manifested itself chiefly by swelling of the lymphatic glands; the tumours being chiefly seated in the submaxillary, and also in the axillary and inguinal glands. A febrile state of variable duration, lasting even fourteen days, preceded the swellings in a certain number of cases. These swellings varied much in size; often they resolved, sometimes they suppurated; but with the exception of only one case, where the tumour became septic, and death followed by pyæmia, all the cases terminated favourably. Only a few patients were confined to bed; the majority were treated as out-patients. It was therefore difficult to estimate the number of cases, because many of them (as I have verified by an examination of the patient-rolls) consulted several surgeons. In no instance whatever were persons coming in contact with the patients infected—a fact which has been verified especially in the hospitals, where several cases were received; the garrison of the town also having entirely escaped.

(To be continued.)

CLINICAL LECTURES ON DISEASES OF THE HEART IN CHILDHOOD.

Delivered at the London Hospital.

By ARTHUR ERNEST SANSOM, M.D. Lond., F.R.C.P.,
Assistant-Physician to the London Hospital, and Senior Physician to the
North-Eastern Hospital for Children.

LECTURE II. HEART DISEASE ASSOCIATED WITH RHEUMATISM.

(Continued from page 335.)

ENDOCARDITIS, rendered manifest by the physical signs of imperfection of the valves, and uncomplicated by signs of pericarditis, occurred in 56 per cent. of the cases of acute rheumatism, in 60 per cent. of the section evidencing rheumatic symptoms. A glance at the table shows that disease of the mitral valve is by far the most common affection, and that this usually leads to incompetence, the occurrence of stenosis of the mitral orifice being comparatively rare. The testimony of the great number of cases shows that the aortic valves, which become involved in a minority of the cases, are attacked subsequently to the mitral.

Table showing the Clinical Phenomena of Heart Disease associated with Rheumatism in Children.

ACUTE RHEUMATISM (41 cases)—

a. Pericarditis (17 cases):

Uncomplicated	3 cases
Complicated with endocarditis, inducing—	
Mitral regurgitation	8 "
Mitral stenosis (one case doubtful)	2 "
Mitral regurgitation and aortic regurgitation	1 case
Aortic obstruction	2 cases
Dilated left ventricle	1 case

b. Endocarditis (23 cases): inducing—

Mitral regurgitation	17 cases
(Of these marked hypertrophy of left ventricle in one case, hypertrophy and dilatation in one case, dilatation in two cases.)	

Mitral stenosis	1 case
Mitral regurgitation and stenosis	1 "
Mitral regurgitation and aortic regurgitation	1 "
Mitral regurgitation and aortic obstruction	1 "
Mitral regurgitation and aortic obstruction and regurgitation	1 "
Aortic stenosis	1 "

c. Hypertrophy

1	1 "
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SUBACUTE RHEUMATISM (10 cases)—

a. Pericarditis

(Uncomplicated, two cases; complicated with mitral regurgitation, one case.)

b. Endocarditis: inducing—

Mitral regurgitation	6 "
--------------------------------	-----

(Marked hypertrophy in one case.)

Mitral regurgitation and aortic obstruction	1 case
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RHEUMATOID PAIN (5 cases)—

b. Endocarditis: inducing—

Mitral regurgitation 3 cases
(In one case progressing to tricuspid
incompetence.)

Mitral regurgitation and stenosis 1 case

d. Dilated Left Ventricle 1 „

The clinical and pathological evidence in the cases of endocarditis occurring in the young subjects affected with rheumatism points the following lessons:—That the disease commences in the neighbourhood of the mitral valve; that it involves the fibrous structure of the valve-curtains, cords, and columns, causing them to become swollen and thickened; that subsequently there is a contraction and puckering of the thickened fibrous neoplasm, whereby the valve-curtains are drawn towards the wall of the ventricle and the auriculo-ventricular orifice is no longer adequately guarded during systole; there ensues *mitral regurgitation*. Or, in the minority of cases, the curtains of the valve become fused together, and the aperture between auricle and ventricle is narrowed, a funnel-shaped or button-hole-shaped orifice resulting. In such case there is mitral stenosis. The disease extending, involves the endocardium lining the left ventricle in a path leading to the aortic valves. These latter may be also affected in like manner with the mitral, aortic regurgitation or aortic stenosis resulting. On the diseased surfaces of the valves it is common for vegetations, consisting of the deposited fibrin of the blood, to form.

As regards the course of the disease, it appears that arrest can take place at almost any stage, with the result that mechanical difficulties of greater or less moment are left as regards the circulation. The general teaching seems to be, that, such is the power of compensation in the heart of young subjects, that in a large majority of cases the lesions, so far as they depend alone on structural alterations of the valves, are so well repaired by an increase in the nutrition and power of the heart that an almost perfect apparent recovery may take place. In these cases attention has been drawn by the occurrence of the rheumatic symptoms to the likelihood of implication of the heart. Very often the child admitted for articular troubles, who has manifested cardiac disease, has been discharged from the hospital with no symptoms referable to the cardiac imperfection. I think we may infer that compensation in the child, so far as regards mere *valvular imperfection*, is readily brought about. Hypertrophy of left ventricle, or left auricle, or of both, is induced sufficiently exactly to overcome the difficulties afforded by the imperfection of the mitral, and even of the aortic orifice. Moreover, when the right cavities have begun to dilate, and serious symptoms of heart-failure have shown themselves, I have found that, with rest and suitable treatment, progress towards recovery has often been very good.

The symptoms which have been manifested by the rheumatic subjects of endocarditis have been briefly these:—A. *Præcordial pain*. This has, I think, been specially manifest in the graver forms of disease, and where there has been much hypertrophy, but I have also observed it to be severe in some cases which have made good recoveries. B. *Dyspnoea*. This is the most common symptom. Orthopœa is always a grave sign. C. *Edema and anasarca*, the usual train of phenomena of heart-disease. D. *Chorea*. This has occurred in a considerable proportion of cases, and epilepsy in a few. Though most commonly bilateral, the choreic movements have generally been manifestly preponderating on one side. In one case the choreic convulsion distinctly started from the right thumb. In some cases distinct changes were evident in one of the optic discs. E. *Anæmia*. In some of the most severe cases this has been the only notable sign. F. *Palpitation, headache, epistaxis*. Occasional but by no means frequent symptoms.

We may now consider the question, What are the special dangers of the heart-disease associated with rheumatism in childhood? I have had no experience of death occurring during the *acute* stage of pericarditis; and as regards endocarditis, I have said that, in my opinion, the imperfection of the valves which it induces is usually well compensated by increased nutrition of the heart during child-life. It follows that the dangers are rather *accidents* than *essentials* of the disease. Chief among the dangers I consider to be the occurrence of *pericardial adhesions*. These were observed in five out of eight cases in which autopsies were recorded. Much discussion has taken place as to whether the occur-

rence of pericardial adhesion can be generally regarded as producing untoward results. There is abundant evidence, I think, in favour of the view that such is not necessarily harmful. But there are adhesions and adhesions. So long as these occur only between the layers of the pericardium, and do not invade the muscular structure of the heart, they are probably of little danger. The like cannot be said of the class described by Drs. Wilks and Moxon, “in which the adhesion of the pericardium is by a thick, vascular, fibrous layer, and the muscular substance is torn by the attempt to separate the pericardium from the heart. The heart is then always found dilated and hypertrophied, and there may or may not be valvular disease co-existent, for the disease is always the result of a severe, and often of a general, carditis.” (a) This more severe form is, I think, relatively more common in children than in adults. The slighter form of pericardial adhesion probably has no influence in inducing hypertrophy of the heart; in children, I think, the most common cause of extreme hypertrophy is the existence of adhesions. As a corollary from what I have said you may deduce that when in any case of valvular disease there are signs of a hypertrophy more than commensurate with the mechanical difficulties of circulation to be overcome, there is a strong probability that pericardial adhesions exist as a concurrent cause for such hypertrophy.

The dangers next in point of gravity I consider to be the existence of broncho-pneumonia or of pleuritis. Broncho-pneumonia is very common in our patients; it greatly contributes to aggravate dyspnoea, or to initiate it in cases where cardiac symptoms may be in abeyance. On what does it depend? I think that in a large number of cases we may conclude that it is due to detachment of clots from the right heart, and thus to pulmonary infarction. In some cases this has been distinctly traceable; in many others it seems extremely probable that infarction has been the first cause of a patch of broncho-pneumonia, the traces of the embolic plug having become obliterated in the course of the disease. In many cases vegetations have been found upon the diseased valves, and embolic infarcts have been discovered in the spleen, etc. It is not my purpose now to consider these phenomena further than as an occasional determining cause of a fatal issue. I will only say that I have been led to this practical conclusion—*that when in a case of cardiac disease in which symptoms are quiescent there is sudden rise of temperature, there is a high probability of infarction in some portion of the vascular system*. In two cases copious pleuritic effusion was discovered. The danger, then, of broncho-pneumonia and of pleuritis in these cases I believe to be that they aggravate the respiratory difficulties already induced by the cardiac lesion, and superinduce death in cases in which, but for their occurrence, compensation might be fairly maintained.

THE PUBLIC HEALTH.—The Registrar-General's return of births and deaths for the week ending Saturday last informs us that 5961 births and 3145 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 19 deaths annually in every 1000 persons living. The annual death-rate was 14 per 1000 in Edinburgh, 17 in Glasgow, and 24 in Dublin. In the twenty English towns the annual rates of mortality per 1000 ranged from 11 in Portsmouth to 25 in Newcastle-upon-Tyne and 26 in Liverpool. The deaths referred to diarrhoea showed a further decline from recent weekly numbers; and the fatality from the disease was proportionally greatest in Liverpool, Salford, Leeds, and Leicester. Small-pox caused but one death in the twenty towns; and that one occurred in London.

GLASGOW SOUTHERN MEDICAL SOCIETY.—The thirty-sixth annual meeting of the above Society was held on the evening of the 18th inst., when the office-bearers for the ensuing session were elected. They are as follows:—*President*: John Niven, L.R.C.S.E. *Vice-President*: T. F. Gilmour, L.R.C.P.E. *Treasurer*: Ed. McMillan, L.R.C.S.E. *Secretary*: Andrew J. Hall, M.D. *Editorial Secretary*: Alex. Napier, M.D. *Seal Keeper*: Wm. Macfarlane, M.D. *Court Medical*: Peter Stewart, M.D. (Convener), R. W. Forrest, M.D., Jas. Dunlop, M.D., Jas. Morton, M.D., J. S. Nairne, L.F.P.S.G.

(a) “Lectures on Pathological Anatomy,” second edition, page 101. London: J. and A. Churchill, 1875.

ORIGINAL COMMUNICATIONS.

PRACTICAL NOTES ON
THE ORDINARY DISEASES OF INDIA,
ESPECIALLY THOSE PREVALENT IN BENGAL.

By Dr. CHEVERS.

(Continued from page 338.)

TRUE ENTERIC FEVER—*Concluded.*

THE last of Dr. Kenneth Mackinnon's admirable writings on Indian Fevers was published in 1855,(a) when True Enteric Fever was beginning to be noticed in Burmah by Scriven, and in Ajmere by Ewart. Still, it is clear that this very accurate observer did not suspect that any of his own cases of Remittent or Continued Fever were, in reality, examples of True Enteric. But, in the following passage, he clearly recognises the observations of others in this direction:—"The Congestive Fever of the cold weather, described by Mr. Martin and Dr. Twining as prevailing in Calcutta among all classes, and the symptoms of which resemble so much the Typhus of Europe, I have not seen to prevail generally, though I have of course met with cases where, with typhoid symptoms, the remissions have been so little marked that the case might be called continued." He then notices that the Calcutta authors do not even hint at contagion.(b)

My own experience of True Enteric Fever in Bengal, in an extensive field of observation, diligently worked for upwards of twenty-seven years, was small, but very distinct. I went to India with a full practical knowledge, acquired in the wards and post-mortem room at Guy's, of that which I first knew as Typhus with Bowel Complication, or Dothinentérite, and which I at once perceived, upon the publication of Jenner's views, to be his Enteric Fever. But I only saw, in ten years, two distinct outbreaks of this disease, between which an occasional case occurred in my wards and practice at distant intervals. Throughout this decade, I and my house-physicians were constantly upon the look-out for Enteric Fever, examining the skin, taking records of the range of temperature, carefully inspecting the stools, and investigating the state of the intestinal follicles, in all fatal cases of a suspicious nature. All my cases occurred in Europeans and East Indians. In these two outbreaks I had a sufficient number of fatal cases and post-mortem examinations to enable me to trace all the ordinary changes in Peyer's follicles, from simple infiltration with surrounding hyperæmia to fatal perforation.(c)

I have no desire to attempt to prove that True Enteric Fever is not now as prevalent among European Troops serving in India as Dr. Bryden and others believe it to be. But the above facts tend to show that, if the disease is upon the increase in that country, its advance has been slow and its prevalence, among the civil population, has not been great. Still, for several years before I left Calcutta, in 1876, the general impression in the profession there was that cases of Enteric Fever were becoming more and more frequent, coincidentally with the extension of a great system of underground sewage in the city. Nevertheless, I think that Dr. Gordon has done a very needful service to science by insisting upon a most scrupulous sifting of cases.

Since Dr. Ewart wrote, in 1855, on the existence of True Enteric Fever among the prisoners in the Ajmere Jail, it has been shown by Dr. Bryden and others that the disease occurs in natives of India. The general consent of the profession appears to be that such cases are very rare. Until I left India, I used to hold rather warm arguments on this point with one of my native medical friends, he declaring that he had seen many hundred cases of Enteric Fever in

Calcutta natives, I maintaining that I had never met with one, and challenging him to show me one. There are no post-mortem examinations in native private practice; and, in a considerable number of cases of remittent and intermittent fever, diarrhoea occurs vicariously, or dysentery sets in as a complication, where sweating is checked, especially in the cold weather and Rains. Here there are not the follicular lesions characteristic of True Enteric Fever.

There has, for many years past, been a section of Indian observers who have described the occurrence of ulceration of the small intestines in what they hold to be Paludal Remittent with Bowel Complication—not True Enteric Fever.

Thus Sir Ranald Martin observed that, in very severe or very protracted cases of Remittent, redness, ecchymosis, or even ulceration will be found on the surface of the large and small intestines. Dr. John Macpherson notices(d) that, in some fatal cases of fever which occurred in the hot weather of 1848 in the Calcutta Presidency General Hospital, Dr. T. M. Lee recognised the post-mortem appearances as being those peculiar to Enteric Fever. Dr. Macpherson, however, considers that these were cases of "Acute Remittent Fever," and adds—"Affections of Peyer's glands may take place in Bengal fever without their being necessarily cases of Typhoid."

In the second edition of his work Dr. Morehead insists that disease of Peyer's glands, either in the stage of tumescence or ulceration, is not a morbid state peculiar to Enteric Fever. It occurs in cholera, in protracted diarrhoea, in acute muco-enteritis, and as an occasional complication of remittent fever; he has also observed it in one or two cases of measles.

I am much indebted to my honoured colleague, Dr. Edward Goodeve, for a letter in which he informs me that, although the question of drawing a distinct line between Indian Remittent and Enteric Fever has occupied his attention, he considers that it demands further research. He suggests a patient sifting of the whole question, and especially an inquiry as to how far Jungle Fever resembles the Enteric. Marked cases should be taken for comparison. He urges a re-investigation of Jungle Fevers and of those grave Remittents which prevail in the vicinity of the Godavery, by the light of our present knowledge of the True Enteric Fever of India. It was long before Louis and Jenner established the distinct individuality of True Typhoid, and we must not, he considers, be surprised at the existing difficulty and delay in differentiating these two fevers. He met with Enteric Fever at Cawnpore upwards of thirty years ago, and he always believed that there was a difference between it and Remittent Fever, especially in the manner of its progress, as compared with the quick course taken by most cases of Remittent, which disease is remarkably frequent and severe in malarious seasons, and generally is more acute in its character and more rapid in its course than is the True Enteric. In Remittents there are often evidences of malarious changes in the blood, as acute disintegration and leucocythæmia. In many Remittents he has found lesions of Peyer's patches closely resembling those in Enteric Fever, but it would be going too far to presume that the two sets of lesions are identical. He has not seen the rash in India.

I have just received a very interesting communication from my friend Dr. Joseph Ewart, in which he states that, after he had observed his published cases at Ajmeer, in 1855, he, when attached to the Meywar Bheel Corps, recorded several well-marked cases among the Bheels of the regiment and the aborigines of the district, but native prejudice prevented him from verifying diagnosis by post-mortem examination. However, he is quite convinced that Typhoid Fever existed both in the regiment and in the surrounding villages, especially in the autumn and in the early months of winter, when the worst forms of malarious remittent abounded. This experience led him to inquire, in the *Indian Lancet*, whether many of the malarious remittents were not, in reality, Typhus, Typhoid, or Relapsing Fever, modified and often materially aggravated by the presence of malaria. That this is so—that many of the so-called Malarious Remittents are simply Typhoid or Typhus Fever modified, often masked, by malaria and malarious fever—he has repeatedly observed, ever since this declaration was made, both in and around

(a) *Indian Annals of Medical Science*, No. 5.

(b) Treatise, pages 247-48.

(c) This extreme lesion occurred once, in the person of a young European sailor, who, when apparently almost recovered from the fever, became so voraciously hungry that, managing to obtain a new loaf unknown to the nurse, he tore it in pieces and rapidly swallowed the whole of it. He was almost immediately afterwards attacked with the gravest symptoms of peritoneal fecal effusion. Although I would not altogether condemn, until I had seen it tried by anyone who would venture to try it, the late Dr. Samuel Denny Turney's practice (*Practitioner*, vol. xix., page 337) of giving solid food in Enteric Fever, this by no means solitary case appears to bring strong argument against it.(d) *Lancet*, January 21, 1871.

Calcutta. He holds that, in a large number of so-called Remittents with Diarrhoea and severe typhoid symptoms, the chief factor is the Typhoid Fever poison; but when, superadded to this, the blood is surcharged also with a large dose of malaria, death often ensues from the combined operation of these causes before ulceration of the agminated glands occurs. This happened in three of his patients, residing in the suburbs of Calcutta, in 1875, who succumbed in from eight to twelve days from what would formerly have been designated Remittent or Jungle Fever; but in all there was very marked prominence of the agminated glands from acute specific inflammation without ulceration. Had the patients lived long enough, ulceration would have been duly developed. In both natives and Europeans who have been subjected to the influence of malaria the fluctuations of temperature in Enteric Fever are greater than in those who have never been exposed to this poison, the morning remissions being so marked as to delude the observer into the belief that he is dealing with a Malarious Remittent simply, when he has really to encounter True Typhoid Fever modified by the manifestations of infection of the system with marsh poison. In his practice at the Medical College and General Hospitals, and among the community of Calcutta, Dr. Ewart has seen the disease in all its phases—so mild that patients have gone about their ordinary business during the greater part of the fever, so severe as to end fatally in a few days, either singly from an overpowering dose of the poison, or when complicated with serious malarious poisoning; or to terminate by uncontrollable hæmorrhage from ulcerated agminated glands, or by perforation of the gut. In natives, the rash is not so easily made out as in Europeans; but, with care, he often distinguished it in those whose shades of colour verge upon brown rather than upon black. In a certain proportion of Europeans the rash is not observed. In fatal cases of this kind he has found ulceration of Peyer's patches. Ever since attention was drawn to this disease by Mr. Scriven, who was attached to the General Hospital of Calcutta for many years, Typhoid Fever has been recognised as a constant factor in the sickness and mortality in that institution. During a long series of years the conduct of the disease has been most carefully watched and fatal cases tested by post-mortem examination. The following statistical data are taken from Dr. Ewart's reports for 1873 and 1874:—

	1865.	'66.	'67.	'68.	'69.	'70.	'71.	'72.	'73.	'74.
Cases of Typhoid	17	18	12	5	4	14	15	17	7	11
Fever treated .										
Died	3	3	4	3	3	1	5	11	3	5

Sir Joseph Fayrer holds the opinion that, in India, and probably in other hot and malarious climates, True Enteric Fever arises not only from pythogenic causes, but also very frequently—nay, perhaps more often—from climatic influences. This view tends to explain much of the difference of opinion which has lately arisen in the Gordon controversy.

If there be two forms of Indian Enteric Fever, there may, possibly, be two sets of intestinal lesions. My own English and Indian experience, however, shows no change in these lesions—those which I used to find at Guy's in 1836 were identical with those which I found in Calcutta between 1866 and 1876.

It is clear that various degrees of hyperæmia of mucous membrane and considerable enlargement of the agminated and solitary follicles attend non-specific irritation of the small intestines. In a case where death occurred while a dose of elaterium was acting, I found the mucous membrane of the lower part of the small intestine highly œdematous and the Peyerian follicles much enlarged. There are several points of resemblance between Asiatic Cholera and True Enteric Fever, especially in the fact that, in Cholera, the intestinal lesions are generally most strikingly developed at the lower part of the ileum. But the follicular changes in Enteric Fever are as characteristically and unmistakably specific as is the vaccine vesicle; and I consider that any case of protracted fever in which the lesions generally recognised as the tokens of True Enteric Fever are found to be present, must be accepted as a case of that disease by virtue of the existence of these morbid changes.

For a considerable time past there has been a growing tendency among the observers of Indian disease to deny the existence of what I cannot but believe to be one of the most certain and indisputable entities in nature—the Paludal

Poison. My able friend, Dr. C. F. Oldham, and some American authorities declare that "Malaria, as a specific poison, does not exist." (e) After twelve months' experience at the Calcutta General Hospital (where, by-the-bye, Paludal Remittent is not at all frequent among the European patients, although there is abundance of it among the native poor at the Medical College Hospital, two miles off), Mr. Lyons exclaims, "I am disposed to believe that Remittent Fever is a myth, like malaria, the fever-producing principle which is said to produce remittent fever." And again, "It appears to me that, at present, Remittent Fever is a theoretical synthesis in this country of the Continued Fevers of Great Britain, and should be discarded as an unscientific entity." (f)

Dr. Morehead long ago foresaw the confusion which would result unless the most scrupulous accuracy was brought to the differentiation of the Enteric and Remittent Fevers of India; and it is to be feared that, for some time longer, we shall hear of such differences of opinion with regard to type, and, what is of much more importance, with regard to treatment, as have lately arisen between Dr. Gordon and his officers in the Madras Presidency—he believing in Marsh Malaria, Typhus, Enteric Fever, exclusively of pythogenic origin, and also in Paludal Remittents; they regarding all the Fevers of India, with the exception of Intermittents, as "the Continued Fevers of Great Britain," and probably being more or less sceptical with regard to the existence of a marsh poison. I am able to listen with real interest and respect to the arguments of Messrs. Oldham and Lyons; (g) but I cannot abandon the belief, founded upon the observation of a lifetime, that there occur every year in Bengal thousands of cases of what I recognise, by its history and symptoms, as Paludal Remittent, with or without bowel complication, curable by quinine; and that there also occur, only at long intervals, very small groups and isolated cases of that which, also by its history and characteristics, I perceive to be Pythogenic Enteric Fever—a disease which it is as impossible to arrest by quinine as it would be to batter down the Tower of London with feather bolsters.

I fully grant, with Dr. Ewart, that True Enteric Fever may be so complicated with and masked by the marsh poison as closely to resemble, and often to be mistaken for, Paludal Remittent. Still, against the arguments of Mr. Lyons and others, I maintain that no two entities in nature are more essentially distinct from one another than are the Marsh Remittent Fever and the True Enteric Fever of India.

The practical outcome of Bryden's researches into the prevalence of Enteric Fever among European soldiers in India, and of the Gordon controversy as to whether the majority of the cases now reported by medical officers as Enteric Fever are, in reality, examples of that disease, or cases of Paludal Remittent with Bowel Complication, may be embodied in this brief advice to young medical officers. Let the practitioner approach each of his fever cases, where the disease assumes a continued form, in a spirit of vigilant inquiry, and never rest satisfied until he has sufficient grounds for determining whether it is one of Remittent or True Enteric.

The Remittent is curable by quinine; the True Enteric is not, but is gradually benefited by it. The temperature charts of the two diseases are altogether dissimilar. At the onset of Paludal Remittent, before quinine begins to act, the highest temperature is immediately attained. In True Enteric Fever the rise is slowly gradual. The condition of the intestinal follicles should be carefully examined in every fatal case of fever; the lesions of True Enteric Fever are, as far as we know at present, quite unmistakable. The body of every European soldier dying in hospital in India is examined post-mortem. If undeniably characteristic follicular changes are discovered in nearly a hundred cases annually, the reports might easily be tabulated by the British Medical Department and published for general information. In this inquiry we are guided safely by closely observing the action of quinine, especially noticing its influence on the temperature.

(e) "What is Malaria? and Why is it most Intense in Hot Climates? An Inquiry into the Nature and Cause of the so-called Marsh Poison," Preface, page vi.

(f) *Loc. cit.*, pages 266-70.

(g) Except when the latter (probably by a *lapsus pennis*) says, at page 277, that Dr. Chevers has pointed out to him that hæmorrhagic dysentery "is probably typhoid fever,"—I having, in writing to him, advocated the opinion that the ship-dysentery, described by Lind and Trotter, was probably Enteric Fever in scorbutic subjects. Nothing can, demonstrably, stand farther apart from enteric fever than does the hæmorrhagic dysentery (sloughing colitis) of Bengal and other districts of India.

The QUININE TEST (page 121) must be employed fairly in every case. The practitioner should never allow his over-confidence that the disease is True Enteric Fever to deprive his patient of a fair trial of quinine treatment.

It would be well if, for several years to come, all candidates for admission to Netley should be expected to produce certificates of having carefully studied True Enteric Fever in wards and post-mortem room. And everyone who goes to India should be supplied with a card of accurate coloured representations of all the morbid changes to which the follicles of the ileum are liable.

Since this chapter went to press, the Editor of the *Medical Times and Gazette* has published an important leader, (h) in which are reviewed Surgeon-General Gordon's report, and another report by Surgeon-General J. Kerr-Innes, on the prevalence and causation of Typhoid Fever among European troops in the Bengal Command in 1876, as they have been considered by the Army Sanitary Commission. The latter authorities conclude their report by recommending (1) That, if practicable, soldiers under twenty-four years of age should not be sent to India, or that young soldiers be sent to hill stations as soon as they arrive; (2) That strict conservancy of bazaars and towns frequented by the troops should be rigidly enforced; (3) That sources of malaria in stations and barracks should be detected and remedied; (4) That existing unwholesome conditions of stables, barrack-room floors, and adjacent sub-soil drainage, should be immediately remedied; (5) That greater care appears necessary in protecting drinking-water from pollution. They insist upon fuller, more minute and careful records of all cases of fever: diagnosis being confirmed by faithful, exact, and detailed reports, including the history, the surroundings, all the symptoms and signs, including the temperature from day to day; and, in fatal cases, the post-mortem appearances.

I have nothing original to suggest with regard to the management of True Enteric Fever in India. Here, as in most other Indian diseases, we must not overlook the presence of the malarial taint. I gave quinine, seldom ordering doses of more than four grains throughout the attack. I never imagined that quinine would arrest the disease, but it always appeared, beyond any other agent with which I am acquainted, to moderate the temperature and to maintain vital power. Quinine does not cure Indian Enteric Fever, but it often carries the patient through; and I believe that, without it, the recoveries would be few or none. I always gave wine and brandy freely, but I could never agree with those who believe that, in this disease, alcohol is more valid than food.* He was, as nearly all who have treated Enteric Fever and Typhus agree, a sound physician who desired that the words "He fed Fevers" should be inscribed on his tomb; but, in this fever, quinine and alcohol are only valid when they do no more than enable the system to receive adequate nourishment during all those weeks of inevitable trial, and of waste and degeneration of tissue. I am unable to follow the reasoning of those who, in this disease, are not satisfied with employing alcohol as a means of sustentation, but carry it forward to the point of over-stimulation.

(To be continued.)

Corrigendum.—At page 338, for "in the physicians' wards, containing sixty beds," read "a hundred and twenty beds."

THE COLD BATH AND AFFUSION IN HYPERPYREXIA:

[ADVANTAGES EXPERIENCED IN A CASE OF REMITTENT FEVER]:
ILLUSTRATED.

By J. LUCAS, M.D., F.R.C.S.,
H.M. Indian Medical Service.

THE subject of hydro-therapeutics has excellent claims on systematic authors of future standard works. During recent years there have been considerable additions to its literature, and the profession is indebted more especially for their valuable contributions to Balbirnie, Binz, Juergensen, Handfield Jones, Dieulafoy, and Franzolini. The properties of cold water—as styptic, astringent, anodyne, and refrigerant, in surgical cases when applied direct to the diseased

or injured part—are too well known, even to the junior student, to need anything further than a passing allusion here.

The application of cold in hæmorrhages of internal organs, such as from the lungs, stomach, bowels, uterus, etc., also requires little else. In organic inflammatory affections it has been employed—in pneumonia, as cold compresses to the chest, under the authority of Dr. Felix von Niemeyer (*British and Foreign Medico-Chirurgical Review*, 1856, vol. ii., pages 248, 249); in dysentery, by frequent drinks of cold water, by Dr. Hiard (*Medical Times and Gazette*, 1858, vol. i., page 156); by Dr. Wenzel, as injections of iced-water (*Lancet*, 1874, vol. i., page 770); and by other observers who have placed their experience on record.

In the literature of the treatment of tetanus the application of ice and cold to the spine is well established in practice; in this malady the antispasmodic properties of cold have been well illustrated by Dr. Playfair (*Medical Times and Gazette*, 1862, vol. i., page 132).

Turning to tropical diseases, in cholera Mr. Macnamara (*Lancet*, 1876, vol. ii. page 346) advocates the cold douche. Dr. Gray, of Bombay, refers (*Medical Times and Gazette*, 1875, vol. ii., page 362) to the utility of cold drinks and sheets in that dire disease. In insolation the use of cold water to reduce the temperature of the body and that of the blood has been adopted for the past quarter of a century, or even more. But in hyperpyrexia other than of insolation, the direct application of cold to the body, apart from the mere sponging of it, or of injections of cold liquids, etc., per rectum, has not, I believe, been practised so frequently by the simple method as it might have been. I propose here to describe the results attained by the cold bath and affusion in a case which recently came under my care. (a) The subject, a native soldier of an infantry regiment quartered at Malwa, young and of short service, but poor stamina or *vis nervosa*, was admitted into hospital on October 1 last, for fever with pulmonary complication. The latter was soon subdued, but the former continued and assumed a grave remittent type. The exhibition of quinine, subcutaneously and by mouth, had little, if any, effect in reducing the temperature, and thereby of preventing or checking the rapid metamorphosis and destruction of vital tissues in the system, which it was evident would yield and give way under the combustion. So I resolved to afford the patient, who was in the most critical condition, the benefit of a plan on the merits of which much has been justly and faithfully said and written, which is based as we know on sound and rational principles, and the results of which have been supported and confirmed by independent clinical observations.

On October 12, at 5 p.m., the axillary temperature (b) was registered at 102° 8' Fahr. At my visit, half an hour thereafter, it was again taken, and found to stand at 103° Fahr., with a quick, full, and somewhat wiry pulse, and rapid and heaving respiration. The plan I adopted was the following:—The patient was undressed, and a sheet bandaged round the body (from the neck and shoulders down to the perinæum); this done, he was lifted bodily, put in a recumbent posture in a bath placed at the bedside, the temperature of which was 80° Fahr., and a piece of cloth dipped in the same water was tied round the head (the object being to prevent determination of blood to it); and the water-carrier was now directed to pour from his leathern bag a small but continuous stream over the entire body. This was done for about eight minutes, (c) during which the pulse was watched. The patient was then dried, flannel clothes, etc., put on; he was lifted (d) and replaced in bed, and covered with warm blankets.

The thermometer, two minutes after his being put back, stood in the axilla at 97° Fahr.; the pulse was less full and decidedly slower; and his breathing was likewise easier. There was no shivering or other untoward symptom; and before I left the hospital I caused the following draught to be given, with instructions that he should be carefully watched through the night, and fed at short intervals with drinks of cold milk:—℞. Vinii rubr. ʒss.; spt. ammoniæ

(a) Before and since then several cases of malarial and other pyrexia have been similarly treated with much advantage.

(b) According to my experience, after taking the temperature of over 500 native adults (both meat-eaters and spare vegetarians), the average normal temperature is 97° 4' Fahr. in India.

(c) In some of the subsequent immersions it was prolonged to even thirty minutes.

(d) After some days, the patient being not so weak, was allowed to go in and out of the bath with little or no help.

(h) *Medical Times and Gazette*, September 6, page 285.

aromat. ℞.; quiniinæ sulphat. grs. xv.; aquæ cinnamoni ʒjss. It would be interesting to add here that the temperature of the water immediately after the patient was removed was 84° Fahr.—*id est*, it (according to physical laws) gained 4° Fahr., while simultaneously the patient lost 6° Fahr. of intrinsic heat. In the subjoined tabular form I endeavour to show the results of similar observations noted at subsequent repetitions of the cold bath and affusion. My thanks are, however, due to Mr. Heeraswamy, my assistant, and to a native medical pupil, for their careful and reliable aid and in these thermometric observations. After some of these immersions, as much as fifteen, twenty, and even forty grain doses of quinia were administered to assist in the objects in view:—

Date.	Hour.	Temperature before bath.	Temperature after bath.	Temperature of water before bath.	Temperature of water after bath.
1878.		Deg. Fahr.	Deg. Fahr.	Deg. Fahr.	Deg. Fahr.
Oct. 14 . .	5.30 a.m.	103	97	80	84
	9 "	102	100	75	77
" 15 . .	7 "	101.4	97.8	78	79
	5 p.m.	101.6	99.6	80	81
" 18 . .	7 a.m.	102.6	100.8	80	81
	5 p.m.	102.4	97.5	79	80
	9.30 "	101	97	76	78
" 17 . .	8.30 a.m.	102.8	97	75	77
	3.40 p.m.	102.6	98	77	79
	9.30 "	101.6	99	78	80
" 18 . .	7 a.m.	101.6	99.2	78	79
	3 p.m.	103	99	77	79
	9 "	101	97	80	81
" 19 . .	7 a.m.	100.8	99.4	72	76
	4.30 p.m.	101.8	99.4	78	80
	9.20 "	100.6	97.2	78	79
" 20 . .	7 a.m.	101.8	97.8	77	79
	3.40 p.m.	103.4	100	78	80
" 21 . .	7 "	102.4	100.2	78	80
	9 "	102	97	78	81

These cold baths were continued for seven days. The number of times a day they were repeated was in the main regulated by the height of the temperature; and, as a rule, they were resorted to whenever it rose above 100° Fahr. (2.4° above normal). On October 22, there being some bronchitic symptoms, the baths were discontinued, and in their place, under similar circumstances, injections of cold water per rectum were substituted, with the results undermentioned.

Date.	Hour.	Temperature before injection.	Temperature after injection.	Temperature of water injected.
1878.		Deg. Fahr.	Deg. Fahr.	Deg. Fahr.
Oct. 22 . .	9.20 a.m.	100	99	77
	4.30 p.m.	102.9	100.2	79
	9.50 "	101.8	100.8	78
" 23 . .	7.40 a.m.	100.4	99.2	68
	3.30 p.m.	102.2	101.6	72
	9.30 "	100.6	100	70
" 24 . .	8 a.m.	100.4	100.2	69
	2 p.m.	102	101	70
	9 "	102	101.2	68
" 25 . .	8.30 a.m.	99.4	99	69
	1 p.m.	100.8	100	70
	9 "	102	101	68
" 26 . .	2 "	101	100.8	70
	4 "	102	101.6	70
	6 "	103	102	71
	9 "	100.8	100.2	68
" 28 . .	4 "	101.8	100.2	70
	9 "	101.2	100.6	68
" 31 . .	1 "	102.4	102	70
	9 "	99.8	99	68
Nov. 1 . .	4.30 "	100.4	100	70
	6 "	101	99	68
" 4 . .	5 "	100	99.4	68
	9 "	100	99.4	66
" 5 . .	2 "	100	99.8	68
	4 "	101	100.6	68
" 6 . .	1 "	102	101.8	68

During this time, with these injections, which were continued until November 6, it was found necessary to administer scruple doses of quinine thrice in the four-and-twenty hours. There was some tolerance of the drug, and the symptoms designated quininism were but slight; it is, perhaps, also worthy of note that the cold injections produced no evil effect in causing intestinal catarrh. A reference to the temperature chart will give some idea as to the severe and obstinate nature of the case, in spite of the combined specific and hydropathic treatment. During the critical period of the case the temperature was registered as often as eight times a day; but it is unnecessary to publish those details, as the tables above given fairly represent the patient's temperature between morning and evening, and *vice versa*.

Readings of Temperature Chart.

1878.	Morning.	Evening.	1878.	Morning.	Evening.
Oct. 1 . .	—	102.2°	Oct. 28 . .	99.4	100.2
" 2 . .	99	104.2	" 29 . .	98.4	101.2
" 3 . .	102	104.4	" 30 . .	97.8	98.4
" 4 . .	102	103	" 31 . .	98	98.4
" 5 . .	101.2	105			
" 6 . .	100.2	103	Nov. 1 . .	98.6	100
" 7 . .	99	101	" 2 . .	97.4	98
" 8 . .	100.2	103	" 3 . .	97.8	98.8
" 9 . .	101.2	104.2	" 4 . .	98	100
" 10 . .	102.2	104	" 5 . .	98.6	100.8
" 11 . .	102.2	103.2	" 6 . .	98.4	102
" 12 . .	102.2	103.6	" 7 . .	98	99
" 13 . .	101.6	103.2	" 8 . .	98	97.8
" 14 . .	101	102.8	" 9 . .	98.4	98
" 15 . .	101.4	101.6	" 10 . .	97.8	98.4
" 16 . .	101	102	" 11 . .	97.8	98
" 17 . .	101.6	102	" 12 . .	98	98.4
" 18 . .	101.6	101.4	" 13 . .	98	99
" 19 . .	101.4	101.8	" 14 . .	98.8	98.8
" 20 . .	101	101.8	" 15 . .	98.8	98.8
" 21 . .	100.4	101.2	" 16 . .	98	98.4
" 22 . .	101	102.2	" 17 . .	98	99
" 23 . .	99	102	" 18 . .	97.4	98.4
" 24 . .	100.4	101.4	" 19 . .	98	98.4
" 25 . .	99	100.4	" 20 . .	97.4	98
" 26 . .	99	102.8	" 21 . .	97	98.4
" 27 . .	99	99.4	" 22 . .	96.8	—

The case terminated in recovery, and the patient gained flesh steadily, though slowly; and during convalescence he was taking a ferruginous mixture in a decoction of margosa or neem.(e)

Remarks.—Had the patient's vital powers been lower than they were, and the maximum temperature much higher than it was, I would still have had recourse to the cold bath in a similar manner, but would have taken the precaution to administer a diffusible stimulant prior to the immersion, and would also have made the bath and affusion more graduated (the temperature of the water lowered by degrees).

I would, however, not be understood to say that the mere employment of cold in the hot stages of malarial and other fevers will *per se* effect recovery, or in any way to depreciate the admirable virtues of quinine. The favourable result obtained in these cases by the repeated reduction of the high temperature is, in my humble opinion, of as much consequence as the reverse is in the curative process of cholera and allied affections, where our indications are to restore the lost heat; and this may be done by warm or even hot baths, injections of warm liquids (beef-tea, with or without alcohol, etc.) per rectum, bladder, and perhaps also hypodermically (which will, I fancy, relieve the cramps); while thus by gaining time by the, though but partial, restoration of absorbing powers, and by rendering the system more susceptible to external impressions, our specific and other remedies and aliments (whether we are treating a case of remittent fever, sunstroke, enteric fever, or cholera) will, *pro tanto*, have greater effect.

I have also to express my assent with those observers(f) who believe, like myself, that the suppression of the action of the sudoriparous glands bears little or no relation to the keeping up the temperature of the body; for I have

(e) *Vide* Dr. Waring's "Pharmacopœia of India," page 53.

(f) As notably Dr. Sydney Ringer, *vide* his article in the *Lancet* of 1878, vol. ii., pages 473, 474, and other contributions; see also this author's "Handbook of Therapeutics."

not unfrequently, like them, been struck by the observation that, with a moist or even profusely perspiring skin, the clinical thermometer made clear beyond doubt this deception. And it may be said that had it not been for the laborious investigations of such men as Drs. Wunderlich, Parkes, Ringer, and others, to whom we are especially indebted for the light thrown by them on this previously and until very recent date unexplored field, in which still many a point remains undetermined, our knowledge would have been far short of its present stage, nor would there have been, as there now is, the promise of still further advance and perfection.

ON AGRIMONIA IN TÆNIA AND IN SCORBUTUS.

By BRINSLEY NICHOLSON, M.D.,
Deputy Inspector-General, Retired List.

I.—AGRIMONIA IN TÆNIA.

ONE complaint common in the Cape, and, as might be imagined, more common after a war, is tænia. The specific name of the worm I do not know, but it is an unusually obstinate one. As to its genesis, the ordinary rations were beef and sometimes mutton; pork was very uncommon, and, to the Caffre, entirely unknown. The regimental hospital sergeant, a man of much experience, intelligent, and in no way given to exaggeration, founding his calculation on constant intercourse with the men and inspection of the camp latrines, estimated the proportion affected as nearly one-fourth. Nor do I think he was far wrong. So far, however, as I knew, only two officers were affected. Another curious point was that on leaving the country the sufferers were apt to get rid of the worm imperceptibly. Thus, two men who had it were from other causes invalidated home; both lost it, and on their return in about two or three years got it again. So one of the two officers, whose case I happened to know, lost his on leaving the station, though previously the evacuation of links, both at stool and at other times, had been a great annoyance. I would also remark that—owing, I am apt to think, to their outdoor life—not more, certainly, than three or four complained of the symptoms of weakness, etc., usually laid down. Only one complained of such weakness as partially incapacitated him from duty, and he was a hospital orderly. A noting of his case runs thus:—"Has taken turpentine without effect; pale, feels weak and ill; took his two ounces between 6 and 7 a.m., July 26; compound jalap at ten; by eleven passed a tænia thirty-seven feet long, alive. Purged thrice afterwards; passed some small pieces at these times. August 20: None seen since."

The official remedies supplied being but a drop in the ocean, and turpentine especially having been found ineffectual, I sought for "native-known cures" and found one in an agrimonia, I incline to think the *Eupatoria*, but the only botanical work possessed was—"The Genera of South African Plants," by W. H. Harvey, Esq. The Caffre name, if I remember rightly, is Uhlinga. It was made known that though no one would be put on the sick-list for it, yet if any on an off-duty day chose to come to the hospital before breakfast time, he could have two ounces of the leaves, etc., pounded into pulp. Such also had about 11 a.m. a dose of compound jalap. I have short memoranda of eighty-six cases; but it will suffice to say that the plant acted effectually in nearly all. In some few the whole worm did not come away, and it may be remarked that some took only half their dose, and that it failed of effect in at most two or three. The tænia was at times alive, at times dead. In four cases thread-worms were also discharged.

To two working civilians, brothers, who came from a distance, I gave directions, and they afterwards told me that they had crisped the leaves in a frying-pan, and then eaten them, and that they had succeeded.

In some cases in hospital where tænia was present a decoction of two ounces to the wine-bottle of water was tried, four or six ounces being given three times a day. The results were not successful; but it was observed that the medicine generally produced diuresis, and some patients complained of the frequency with which they had to rise at night and make water. I notice this because it led to the use of the

plant in scurvy, and to an observation on the treatment of that disease which appears worthy of notice.

II.—AGRIMONIA IN SCORBUTUS.

On being transferred during my first campaign to East London, Buffalo Mouth, I found that some cases returned as phlegmon were scurvy. In my second campaign I looked out for such, but none occurred, until—after peace had been proclaimed, and while we were still without gardens and practically without vegetables—we had a hot and droughty spring and summer. Having requisitioned for lime-juice, about a dozen or two of wine-bottlefuls were received, with the reply that more could not be spared, as it was required by the Navy. My mind having long been made up to use the Oliphant's boom, the younger leaves of which form a not bad substitute for gooseberry-tart, I did not at first much care. However, on sending out men, the plant did not seem to be very abundant in that locality, while the drought had dried up its succulent leaves, and stopped their vegetation. In despair of other remedies, I had thought of grass; but an old English herbal gave me a number of plants as anti-scorbutics, and I noticed that all, or nearly all, were also marked as diuretic. It then occurred to me that the nitrate of potass, which had been vaunted in scurvy, was diuretic; and my memory at once went back to the agrimonia. Luckily, also in my rides to an outpost I had noticed in a small watered valley this plant in great abundance just shooting up with large root leaves. The following is a short entry made at the time:—"Two ounces of fresh herb to a wine-bottle; four, and afterwards six, ounces of the decoction thrice a day. The pains rapidly diminish—more rapidly, I think, than the spots or discolourations. The patient is able to walk about sooner than under other treatment, and declares himself well, even though the spots still exist, and the gums show a scorbutic taint. There is, however, a rapid general improvement, certainly as rapid as under speck-boem or potatoes, and perhaps more rapid than under both combined, or under four ounces daily of preserved lime-juice." Afterwards the dose of the decoction was increased to eight ounces. Scurvy showing itself at the outpost above mentioned, I simply cut a haversackful of the agrimony, gave it over to a non-commissioned officer with directions that a tumblerful was to be given twice a day to each affected, and only inspected them on my weekly visit. It was not over-pleasant, but the men, being rather scared, took it readily—I might say, with desire. At a more distant outpost, which I only had to visit when sent for, I gave directions to the officer commanding, and never saw the cases.

The pain spoken of above occurred, not so much in what for shortness sake I may designate as the spotty or skin disease form, as in the phlegmasia-dolens-like form, where the knee-joint is contracted, the calf and neighbouring parts swollen and tense, and the discolouration either lesser or patch-like—such cases as once caused them, as I have said, to be classed in the returns as phlegmon. The diuretic properties of so many remedies leads, I think, to this conclusion: that scurvy is not so much due directly to the want of any necessary element or elements of food, but that this want indirectly allows the formation of abnormal and poisonous combinations, which are destroyed by the re-supplying of the wanting element or removed by elimination through the urine.

AN EXAMPLE.—The Guardians of the Milton (Kent) Union have been the first to take action under Mr. Martin's Burials Act, and have directed their Medical Officer of Health to make an inspection of the various burial-grounds in the district, with a view of ascertaining their sanitary condition.

VACCINATION BY UNQUALIFIED ASSISTANTS.—The Huddersfield Board of Guardians have resolved that the public vaccinators for the Cumberworth and Lindley districts be called upon for a written explanation of certain irregularities committed by them in deputing their duties to assistants who were not qualified medical practitioners, and in signing on the vaccination registers their own names as having performed the operation, when the assistants had in fact vaccinated children. This action on the part of the Board was taken in consequence of a letter being received from the Local Government Board complaining of the practice.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL, MANCHESTER.

TWO CASES OF PELVIC HÆMATOCELE.

Case 1.—Retro-Uterine Hæmatocele after a Fall and Old Cellulitis—Sudden Acute Symptoms following an Examination—Abscess—Puncture—Recovery.

(Under the care of Mr. CULLINGWORTH.)

ANN P., aged thirty-three, a married woman, presented herself at the out-patient room early in February, 1878, complaining of "bearing-down," back-ache, constant pain in the right groin, and increasing difficulty in walking. She was a well-built, somewhat robust, woman, whose health was evidently not seriously impaired. She had borne two children, of whom the elder was ten and the younger eight years of age, and from the time of her first confinement had suffered from symptoms of prolapse, which, becoming more urgent year after year, had for several years necessitated the use of a pessary. The symptoms for which she now sought advice commenced two years ago, but had been much more severe since the beginning of December, 1877, when she fell down an entire flight of stairs, sliding with her feet foremost, and bumping her back against the edge of every step as she descended. The accident rendered her temporarily unconscious, but did not subsequently interfere with her power to perform her duties.

On examination bimanually there was detected a firm, smooth swelling, occupying Douglas's pouch and extending to the right side, but quite limited to the pelvis. The uterus, natural in size, of moderate mobility, and separable from the swelling, was pushed forwards. The roof of the vagina was not markedly tender.

On reaching home after this examination the patient began to feel ill and to have a good deal of pain in the back and right side of the pelvis, which symptoms continued up to February 23, when she was admitted as an in-patient. At 5.30 p.m. on the day of admission the temperature was 102° 8', and the pulse 112. The retro-uterine swelling had increased in size, become more tense, and was exquisitely tender. The uterus was now displaced downwards as well as forwards, and was quite fixed.

26th.—By means of the aspirator half a pint of dark, viscid, highly offensive fluid was removed per vaginam from behind the uterus. In the fluid there were some shreds of membrane and flakes of purulent lymph. When the flow ceased the cavity was repeatedly washed out with a warm lotion containing permanganate of potash. The temperature on the evening of the 25th was 103° in the rectum, and on the morning of the 26th 102° 1', while on the evening of the 26th, after aspiration, it had fallen to 99° 8'. The acute pain did not return until the third day, when an examination showed that the cavity was re-filling. The record of the temperature and the pulse is as follows:—

27th.—Morning, temperature 100° 7', pulse 104; evening, temperature 101°, pulse 100.

28th.—Morning, temperature 101°, pulse 98; evening, temperature 103°, pulse 104.

March 1.—Morning, temperature 102°, pulse 100; evening, temperature 103° 5', pulse 110.

2nd.—Morning, temperature 102°, pulse 106; evening, temperature 103° 6', pulse 104.

3rd.—Morning, temperature 101° 6', pulse 100; evening, temperature 101° 8', pulse 100.

4th.—Morning, temperature 101° 8', pulse 102; evening, temperature 102° 3', pulse 106.

5th.—The swelling was tapped per vaginam by means of a long curved trocar, and a small quantity of pus withdrawn. A winged catheter was then inserted, and left to act as a drainage tube. Temperature, morning 102°, evening 101° 6'.

9th.—There has been a slight continuous discharge of matter through the catheter, which was now removed.

13th.—Opening remains pervious; there is a slight offensive discharge; uterus is still displaced downwards and forwards, and fixed; cervix much swollen and indurated; roof

of vagina tender and brawny; prominence of Douglas's pouch has almost disappeared.

April 29.—Discharge has altogether ceased. The patient is free from pain and is gaining flesh. The vaginal roof remains brawny, but its tenderness is greatly lessened. The uterus is still large and heavy, but less so than a month ago.

May 1.—Discharged from the wards, and made an out-patient.

21st.—Only very slight thickening of vaginal roof; the opening made by trocar distinctly perceptible as a little puckered cicatrix. Uterus moderately movable. Patient's only complaint is of a sensation of "bearing-down."

September 24, 1878.—No return of fulness in retro-uterine pouch; vaginal roof exceedingly tender; patient otherwise very well.

August, 1879.—Patient called at the hospital and reported herself in excellent health.

The following is the record of temperature and pulse during convalescence, morning and evening:—

1878.	Temp.	Pulse.	1878.	Temp.	Pulse.
March 6 . M.	100° 6'	96	March 22 . M.	99° 8'	84
E.	100° 0'	100	E.	100° 0'	86
" 7 . M.	100° 8'	100	" 23 . M.	99° 2'	82
E.	100° 8'	96	E.	100° 8'	84
" 8 . M.	100° 8'	94	" 24 . M.	100° 4'	86
E.	100° 7'	104	E.	99° 8'	84
" 9 . M.	100° 8'	98	" 25 . M.	100° 1'	86
E.	100° 8'	100	E.	100° 2'	82
" 10 . M.	101° 2'	96	" 26 . M.	99° 8'	86
E.	102° 0'	98	E.	100° 0'	84
" 11 . M.	102° 2'	94	" 27 . M.	99° 6'	86
E.	102° 4'	98	E.	100° 0'	84
" 12 . M.	100° 2'	96	" 28 . M.	99° 8'	82
E.	100° 2'	98	E.	100° 1'	84
" 13 . M.	100° 2'	96	" 29 . M.	100° 2'	80
E.	100° 2'	98	E.	103° 2'	104
" 14 . M.	100° 8'	94	" 30 . M.	101° 3'	98
E.	100° 4'	94	E.	102° 6'	104
" 15 . M.	100° 4'	96	" 31 . M.	101° 8'	84
E.	100° 9'	94	E.	101° 6'	86
" 16 . M.	99° 6'	92	April 1 . M.	100° 4'	82
E.	101° 4'	94	E.	100° 2'	86
" 17 . M.	100° 2'	90	" 2 . M.	99° 8'	84
E.	101° 4'	94	E.	99° 8'	86
" 18 . M.	100° 0'	92	" 3 . M.	99° 0'	82
E.	101° 0'	94	E.	99° 2'	84
" 19 . M.	100° 4'	94	" 4 . M.	99° 4'	80
E.	101° 4'	96	E.	99° 5'	82
" 20 . M.	100° 4'	94	" 5 . M.	99° 8'	84
E.	101° 8'	92	E.	100° 0'	82
" 21 . M.	100° 0'	92	" 6 . M.	99° 6'	80
E.	101° 8'	92	E.	98° 8'	—

Case 2.—Peri-Uterine Hæmatocele following the use of Pessaries for Retroflexion—Abdominal Tumour—Aspiration—Abscess—Discharge of Contents by Bladder and Rectum—Recovery.

(Under the care of Mr. EWART.)

[From Notes in the Hospital Case-Book.]

Elizabeth H., aged twenty-five, a married woman, first attended at the hospital in December, 1877. She stated that she had always enjoyed fair health until a month ago, when she miscarried at the third month of pregnancy. From that time she had continually lost considerable quantities of blood. She was complaining also of pain in the back and the left side. On examination the uterus was found slightly enlarged, and in a state of extreme retroflexion; the fundus reached downwards until it was nearly on a level with the os. The os itself had suffered but little forward displacement. The hæmorrhage was speedily checked; but, as vaginal pessaries failed to correct the malposition, the patient was advised to come into the hospital. She became an in-patient February 18, 1878, looking weak and ill, and complaining of pain in the back and left side, of frequent micturition, and of a sensation "as though the womb was low down." Examination revealed a slightly prolapsed and extremely retroflected uterus; the os was a little patulous, and the cavity somewhat enlarged. A Chambers' vulcanite stem-pessary was introduced, and worn for about ten days, though it was retained with difficulty owing to the patulous condition of the os. The uterus being now in position, a Hodge's pessary was introduced. At the

end of three weeks the patient complained of great pain over the uterus, which was very tender; the pessary was consequently removed, and poultices applied continuously. About the middle of April she was obliged to go home for domestic reasons, but on May 4 she again sought admission, stating that she had been confined to bed nearly all the time she had been out, and had suffered great pain over the lower part of the abdomen. Her general health had in no way improved; she looked sallow and anæmic, and was so feeble that the slightest exertion produced breathlessness. A smooth semi-elastic tumour, equal in size to a foetal head, and very tender on pressure, occupied the centre of the lower part of the abdomen, extending from the pubes nearly to a level with the umbilicus. The tumour could not be reached through the vagina. The cavity of the uterus was larger than natural, and the os patulous. On the evening of the day of admission the temperature was 103.2° , and the pulse 112.

May 5.—Morning, temperature 100.6° , pulse 110; evening, temperature 103.8° , pulse 108.

6th.—Morning, temperature 102.4° , pulse 102; evening, temperature 101.8° , pulse 104.

7th.—Morning, temperature 101.2° , pulse 104; evening, temperature 102.4° , pulse 100.

8th.—Morning, temperature 99.6° , pulse 100; evening, temperature 102.4° , pulse 100.

9th.—Morning, temperature 98.4° , pulse 100; evening, temperature 103° , pulse 100.

10th.—Morning, temperature 99° , pulse 100; evening, temperature 103.2° , pulse 98.

11th.—The patient having been placed under the influence of ether, the aspirator-needle was introduced into the tumour midway between the pubes and anterior superior spine of the left ilium, and seventeen ounces of thick, dark, chocolate-coloured fluid were withdrawn, which was shown by the microscope to be entirely composed of altered blood.

14th.—Has steadily improved. The temperature on the day of operation and on that following did not reach 100° , but last evening it rose to 102° . Pain is diminished. The tumour has not disappeared, and seems now, indeed, to be nearly its original size. The patient is passing blood in the urine.

20th.—Pain more severe. Temperature has only exceeded 100° on three occasions since the last note, viz., on the evening of the 14th, when it was 102° , and on the evenings of the 17th and 19th, when it was 100.8° and 100.4° respectively. Blood still appears in the urine.

26th.—During the whole of yesterday, and once three days ago, there was a discharge of fluid from the rectum, which gave the patient the impression that the urine was passing by the bowel. This morning two small clots passed per urethram, after which the urine was no longer blood-stained. The tumour is greatly lessened in size.

31st.—Patient is much better. The urine has contained a large quantity of pus since the date of the previous note. Tumour has almost disappeared.

June 23.—Tumour no longer perceptible. Uterus in good position; cavity somewhat enlarged. Patient's health greatly improved.

August 25, 1879.—No re-appearance of the swelling. There again exists, however, a condition of extreme retroflexion of the uterus.

EDINBURGH ROYAL MATERNITY AND SIMPSON MEMORIAL HOSPITAL.

ANTE-PARTUM HÆMORRHAGE—SUDDEN DEATH.

(Notes by T. MACHATTIE, M.B., Resident Surgeon.)

THE following case occurred in the out-patient practice of the Edinburgh Royal Maternity and Simpson Memorial Hospital, and on account of the rarity of such cases is worthy of record. On the 3rd inst., at 11 a.m., a message came from Mrs. X., aged forty-two, for a doctor to attend her in her ninth confinement. In accordance with the rules of the hospital a student was sent, and ascertained that at about 5 a.m. some slight "niggling" pains had been felt in the abdomen. The patient was within three weeks of term, and felt some anxiety about herself because her previous labour was complicated with ante-partum hæmorrhage and the child was born dead.

She had had no strong pains up to the time the student arrived. On examination per vaginam, the os uteri admitted the tip of the forefinger; the cervix was about half an inch long, very soft and ragged; and the round globe of the head was felt. Seeing no necessity for remaining, the student left the house, stating that he would return in about an hour. On his arrival he found that the patient had sat up in bed to pass water, and whilst doing so copious hæmorrhage had taken place—the bedclothes were saturated, and the blood was trickling on the floor. The woman was faint and exsanguine, and her pulse was weak and rapid. No time was lost in sending to the hospital (a distance of about three-quarters of a mile) for the Resident Physician, who on his arrival found the woman dead. Bleeding had ceased five or ten minutes before he reached the house. The woman presented the usual blanched appearance of those dying from hæmorrhage. On examination per vaginam, the os uteri was found dilated to the size of a florin, the cervix nearly half an inch long and ragged; the head was easily felt, and as far as could be ascertained the membranes were unruptured. No placenta presented at the os, the finger sweeping uninterruptedly around it.

The most notable points in this case appear to be:—1. The fact that her previous labour was attended with a similar but much less serious ante-partum hæmorrhage. 2. The shortness of time which elapsed between the onset of the hæmorrhage and the death of the patient. 3. The suddenness of the onset and the absence of all symptoms. 4. The question as to diagnosis: as after death no placenta could be felt, the origin of the hæmorrhage had evidently been from separation of the normally situated placenta. 5. Had she been seen in time, could she have been saved? The evident management of the case would have been immediately on the occurrence of the hæmorrhage to rupture the membranes and apply pressure over the uterus, and either to have turned or to have applied forceps, the latter being the more satisfactory proceeding. As it was, she was not seen by a qualified surgeon until after death.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—A special examination for the licence of the College was held on Monday and Tuesday, September 15 and 16, when the licence to practise Medicine was granted to Mr. Thomas Beattie Moffitt.

THE NEW REGISTRAR-GENERAL FOR IRELAND.—The unanimous verdict of approval with which the appointment of Dr. Grimshaw as Registrar-General for Ireland has been received must be gratifying to that gentleman and to his many friends. Last week two public bodies in Dublin—the Irish Medical Association and the Dublin Sanitary Association—passed congratulatory resolutions in reference to the appointment. At a meeting of the executive of the Irish Medical Association, held on Tuesday, September 16, at the Royal College of Surgeons, Dublin, Dr. Speedy, chairman of Council, in the chair, it was moved by Dr. J. W. Moore, seconded by Dr. Pollock, and unanimously resolved—"That the Council of the Irish Medical Association have heard with the liveliest satisfaction of the appointment of Dr. T. W. Grimshaw as Registrar-General for Ireland, and hereby convey to him this expression of their gratification at his well-merited promotion to such a responsible and important a position under her Majesty's Government. At the same time the Council feel much regret in accepting the unavoidable resignation of Dr. Grimshaw as a member of the executive of the Association, and desire to express their grateful thanks to him for his inestimable and unwearying services to the Association, and to the profession at large." At a meeting of the Executive Committee of the Dublin Sanitary Association, on Thursday, the 18th inst., it was resolved—"That the Executive Committee of the Dublin Sanitary Association, in accepting the resignation of Dr. T. W. Grimshaw as a member of the Committee, consequent on his appointment as Registrar-General for Ireland, avail themselves of the earliest opportunity of congratulating Dr. Grimshaw on his well-merited promotion to the important position of Registrar-General, and trust that he may long be spared to advance the best interests of the public in the new sphere of duty to which he has been called from his unceasing and disinterested efforts in connexion with the labours of this Association."

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THE MEDICAL TIMES AND GAZETTE is published on Friday morning: Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.

SATURDAY, SEPTEMBER 27, 1879.

Among the reports by inspectors of the Medical Department of the Local Government Board that we have received lately is one, by Dr. Thorne Thorne, on the sanitary condition of Wickford, in the Billericay Rural Sanitary District, with special reference to a recent prevalence of diphtheria in the village; and the report calls for more than usual notice. Dr. Thorne's inquiry has not indeed added aught to our knowledge of diphtheria, though the outbreak at Wickford, like those at Cranfield and elsewhere, suggests that there is some causal connexion between damp and defective sewerage—or absence of sewerage—and that disease. Wickford village is periodically flooded. No winter passes without some flooding of it, and any heavy rainfall at other seasons leads to a similar result. The village has a wholesome water-supply derived from one public and two private artesian wells, though the supply is at times, during dry weather, deficient in quantity. But the means of sewerage and drainage are of the worst possible description. Scattered about the village are ditches which receive liquid sewage, and in some instances also the contents of privies built over them. The ditches have a natural fall in the direction of the river Crouch, by which the village is at times flooded, but as a rule the contents of the ditches are stagnant; and they are in close, at times in very close, proximity to the cottages. There are a few brick drains; but some of them are so badly constructed that solid deposits accumulate in them, and the fluid contents leak out; and the contents of one that was examined escaped under the floor of a cottage, rendering it quite unfit for human habitation. The common privy-with-pit is general, and is the cause of more than usual nuisance. Diphtheria broke out in the village in September, 1878, and spread so as to cause in Wickford and Great Waltham twelve attacks and five deaths. The cottage in Wickford where the child resided who was the first attacked

But, perhaps, the most interesting and instructive part of Dr. Thorne's report is that which relates to the "previous sanitary history of Wickford." We have already stated that Wickford is situated in the Billericay Rural Sanitary District, in Essex. Now, that District was one of the members of the Combined Sanitary District of Chelmsford, Maldon, and Billericay, and it may be remembered by some of our readers that it was the withdrawal of the Billericay Board from the Combination that led to the retirement of Dr. Cornelius Fox, the Medical Officer of Health of the Combined District, from the public health service; and the report before us helps the reader to understand the reason of all this. Dr. Thorne tells us that, owing to local complaints as to the offensive conditions in Wickford, a report on the sanitary circumstances of the village was, in 1874, presented to the Sanitary Authority by Dr. Cornelius Fox. The report dealt in detail with the serious defects in the drainage and the privy accommodation, referred to the floods, and pointed out, amongst other things, that although in Wickford parish the general mortality from all causes had, during the decennial period 1861-70, been "below the average," that from "fever" and from diarrhoea had been greatly in excess of that obtaining for the whole of England and Wales, for London, and other specified districts. Recommendations made by Dr. Fox were appended to the report, and dealt chiefly with the provision of a means of drainage for slop-water, the provision of a dry or pail-closet in place of the foul privies, and the removal of obstructions in the bed of the river—the Crouch. A further report, issued in April, 1876, went to show that when the death returns were examined for the twenty years, 1851-70, the general mortality for Wickford parish was in excess of that obtaining in the standard group of districts quoted by the Registrar-General, and that the infantile mortality and that due to diarrhoeal diseases was in excess of that obtaining both in the standard districts and in a number of the neighbouring registration districts, the excess from diarrhoeal diseases being especially great. These reports were in 1874 and 1876 laid before and considered by the Wickford Vestry, but to very little effect. The Crouch was, indeed, in the autumn of 1877, cleared out in its passage through Wickford parish, and with beneficial results; but, beyond the removal of certain special nuisances, nothing was done in the village itself. In October, 1878, a further report was presented by Dr. Fox to the Billericay Rural Sanitary Authority, explaining the circumstances in which the outbreak of diphtheria had arisen, and again urging the adoption in full of the recommendations made in his report of 1874. Certain specified nuisances were then ordered by the Sanitary Authority to be remedied; but some of them could hardly be dealt with piecemeal, and, when Dr. Thorne made his

report in July, this year, the conditions of drainage and excrement disposal common to nearly the whole village remained what they had been. In the meantime, however—and here we take leave of Dr. Thorne's report—the Authority gave notice that, on the termination of Dr. Fox's three years' engagement, in June last, they should withdraw from the Combination. Dr. Fox's reports had been forwarded to the Local Government Board, and, after the receipt of the third, the Board wrote to the Authority censuring them for their inaction. This, and the Medical Officer of Health's troublesome persistency, we may suppose, made the Authority determine to get rid of such an active officer as Dr. Fox; and in this they succeeded, for the Local Government Board professed itself powerless to forbid the disruption of the Combination, and, at any rate, would not do so. Dr. Fox felt that in these circumstances the medical officer of health of any combined district would be at the mercy of any authority that felt offended by what they might consider inconvenient activity, and he took the dignified course of declining to hold the appointment of the other two authorities, and of retiring altogether from the public health service. We have, when commenting on this awhile ago, pointed out the disastrous effects the policy of the Local Government Board must have on sanitary progress. It is obvious enough that able and specially well qualified men, like Dr. Fox, will not give up practice, and take service with a combination of sanitary districts, if the combination may be broken up at the will of any one or more of the authorities concerned. And, further, sanitary authorities in general may apparently learn from the story of Wickford Parish and the Billericay Rural Sanitary Authority that they may defy the Local Government Board in all points with impunity. The Authority determined to break up the combination of districts, and the Board only remonstrated, and remonstrated in vain. The Authority neglected to act on Dr. Fox's reports, and the Board scolded; but again in vain. The Board's own inspector, Dr. Thorne, has confirmed Dr. Fox's reports in every particular; and, for aught that is known, the sanitary condition of Wickford still is virtually what it was when Dr. Fox first reported on it in 1874.

THE EFFECT OF POSTURE IN THE REDUCTION OF HERNIA.

DR. FRANK H. HAMILTON has recently brought under the notice of the New York Academy of Medicine the question of posture as a means of relief in strangulated and incarcerated hernia, and has entered into the general consideration of the mechanism of reduction. The paper has been published in the *New York Hospital Gazette*, and is well worthy of careful perusal. Hitherto, although such good authorities as Wiseman, Percival Pott, Johannes de Gorter, Corillard, Sharp, Bell, Louis, and Hey have approved of the position which may be called the *inverted inclined* or the *inverted vertical* as favouring the reduction of hernia, yet it must be acknowledged that the mechanism of reduction, to say nothing of the *modus operandi* of posture, is not properly described in text-books, if indeed it is at all, generally, correctly understood.

If it be once distinctly perceived that, from the nature of things, hernial apertures can seldom if ever be relaxed or opened by any measure except by a cutting operation; that the apertures do not, except upon rare occasions, actively compress the protruding viscera, but that the viscera become constricted by pressing against the apertures;—then it will be clear that the relaxation of these apertures is not ordinarily a part of the mechanism of the reduction of hernia, and that the theory that muscular *spasm* is ever the cause of a strangulated hernia must be rejected.

The manner in which chloroform and other anæsthetics, bleeding, and the warm bath, etc., encourage or effect the release of a rupture, is not by relaxing the apertures. They all have a common mode of action—differing only in degree—which will be understood if we consider the conditions of strangulation. When a portion of intestine or omentum has escaped through an aperture in the muscular or tendinous portions of the belly and has become strangulated, the hernial opening is by the pressure of the protruding tissues stretched to its utmost. If it were not the tissues would not be strangulated. In a short time the vessels of the hernial contents become obstructed, and congestion of the portion beyond the stricture takes place. This congestion increases, and causes serous effusion or œdema, and eventually true inflammatory effusion; and the rupture is thus button-holed, and cannot be pushed back or drawn in. In the case of the intestine this button-holing is aggravated by the expansion of the intestine outside the stricture by gas. Sometimes this gaseous expansion is the chief cause of the button-holing; and may lead to incarceration before the occurrence of strangulation, if the channel of the intestine is completely closed so that no air can be pressed back, but the vascular circulation not interrupted.

Under such circumstances is it possible that the fibres, whether muscular or tendinous, which immediately surround the hernia, and which are stretched to their utmost limits, could be made to yield to muscular contraction so as to relax the hernial aperture? Clearly it is not. Moreover, the relaxation, or increased patulency of the hernial rings by muscular agency, if it were possible, could never be the mechanism of reduction in cases in which the stricture is at the neck of the sac itself.

What, then, is the true mechanism of reduction by such general agents as mentioned above? By paralysing all the voluntary muscles and especially the muscles of the abdomen, and by weakening the action of the diaphragm, chloroform and other anæsthetics, bleeding, and the warm bath, etc., remove most effectually the resistance usually afforded by these muscles to the return of the hernia, and permit taxis to be successful when it otherwise could not be. It is even possible that under the influence of these same agents the hernia may be actually withdrawn by peristaltic or anti-peristaltic action. Retching and the evacuation of the rectum—pretty frequent effects of such agents—testify to the peristalsis and anti-peristalsis, and imply a power of *inward traction* which far exceeds the normal peristaltic motions.

Now, Dr. Hamilton points out that inward traction upon the contents of the hernial sac can be produced by posture, and as herniæ occur chiefly in the lower portions of the abdominal cavity, it is evident that a very effective position for the action of such inward traction is with the hips elevated so that the weight of the viscera drags in an upward and backward direction. Of course the nearer the position approaches to what is commonly called “standing on the head,” the more completely does the rest of the small intestine pull upon the strangulated or incarcerated portion, and the greater is the chance of the latter being disengaged.

Thus, while taxis or pressure from without inwards, judiciously applied, is first in point of importance as a means of reducing strangulated herniæ, inward traction, judiciously employed, is, Dr. Hamilton says, only second in point of importance to taxis. Such inward traction he considers is effected directly by peristalsis, anti-peristalsis (of the occurrence of which he has had ocular proof), and gravitation through the agency of posture; and indirectly by paralysis of the abdominal muscles, through the agency of posture or of general muscular relaxants, and by emptying the bladder and lower gut. Hitherto the relaxation of the apertures has occupied the place now assigned by Dr. Hamilton to inward

traction; and inward traction has been either entirely disregarded or relegated to a very subordinate position. The author of the paper quotes briefly the notes of fourteen cases in support of his views as to the value of posture; but while we accept the latter as correct, we are bound to say that, in our opinion, the cases go little or no way towards proving the value of posture as a means of reduction, inasmuch as in most, if not all the instances quoted, other measures, such as taxis, ice-bags, and anæsthetics, were employed as well. We think Dr. Hamilton has given the death-blow to the now almost exploded theory of muscular spasm being a cause of strangulation, as well as to the idea that the dimensions of hernial apertures can ordinarily be influenced by posture or muscular relaxants. He has also pointedly drawn attention to such inconsistencies in the views of the reduction of hernia as are contained in the treatise on Ruptures by Sir William Lawrence, who, while denying that any displacement of the abdominal viscera can occur when the body is actually inverted, yet advises that the hips should be raised "in order to favour the gravitation of the viscera from the point of protrusion of the hernia."

THE WEEK.

TOPICS OF THE DAY.

Two rather singular cases of poisoning by misadventure were reported last week. In the first, which terminated fatally, the wife of the Principal of the Broughton High School, Manchester, mixed what she believed to be a draught of essence of almonds and water, and drank it off. A bottle of the essence was usually kept in the pantry for flavouring confectionery. Death was very rapid, and will form the subject of a coroner's inquiry. In the second case, the landlord of the Bell Hotel, Ludlow, sent to a neighbouring chemist's for a seidlitz powder, and, in the act of drinking it, perceived that some serious mistake had been made. He was seized with violent pains in the stomach, and, pending the arrival of a medical man, took a strong emetic. The promptness of the remedy averted a fatal result, and the victim has partially recovered from the effects of the dose, which, on inquiry, was found to have consisted of precipitate powder supplied by the chemist's boy in lieu of a seidlitz powder. Ludlow is scarcely to be congratulated on possessing a parallel to Dickens' chemist's boy, who "had a fixed impression that oxalic acid meant Epsom salts."

From a minute which has just been published in a Parliamentary paper by the Registrar-General of Shipping and Seamen, relating to colour-blindness, we learn that the colour-test was first introduced by the Board of Trade in examinations for masters' and mates' certificates in May, 1877. From that date to the end of May, 1879, thirty-nine candidates have been reported to have failed to pass the test. From this number, however, should be deducted twelve who subsequently passed on re-examination, and one who on consideration was allowed to pass, so that the actual number of failures from this cause stands at twenty-six. During the period referred to, 4258 individuals have failed to pass the examinations from various causes, and 2929 have obtained the certificates for which they were examined. Of these 2929 only about 1709 succeeded in satisfying the Board of Trade examiners on the first attempt, the remainder having failed at least once previously. If, therefore, we add the number of individuals who have failed (4258) to the number of those who have never failed (1709), we obtain the total number of individuals examined from the end of May, 1877, to the end of May, 1879—viz., 5967. As shown before, twenty-six candidates were decidedly colour-blind. The proportion, therefore, of the colour-blind candidates to the total

number of individuals examined is about 0.43, or rather less than one-half per cent.

"An Inhabitant of Cavendish-square" has written to the *Times* to point out the system adopted by the St. Marylebone Vestry in the construction of new sewers in their district. In making the excavation necessary for this purpose, he says that "earth-stuff, dirty and blackened, natural clean gravel, and the old brick-and-mortar sewer, broken into fragments, are brought to the surface. Their disposal is regulated as follows:—The earthy black stuff and the fragments of the old sewer, long saturated with sewage, are carefully returned to the trench or laid upon the road; the gravel, as being valuable, is carted away for the use of the contractor elsewhere." If this statement be correct—and there appears but little doubt that it is so—could not the parochial authorities frame their contracts so that the gravel might be retained, and the *débris* carted away? We commend the consideration of this subject to the notice of Dr. John Whitmore, who so ably superintends the health arrangements of the parish.

The "institutions" of our American cousins are often a little singular from an old-world point of view: what would be thought in this country of the following example? A train left Galveston for Houston recently, to see whether that town would enforce its quarantine regulations in defiance of the Governor's proclamation ordering its removal. The train carried a United States Marshal, and forty deputies, a United States Commissioner, and a district attorney. At the county limits it was stopped by the Houston Health Officer, and he was at once arrested, as was the Health Officer at Websterville, on the charge of obstructing the mails. They were released on bond, and the train went on, reaching the city limits by dark. Here it was halted by the whole police force of Houston, but the United States Marshal, having increased his force of deputies by one hundred, the police were arrested. When the Federal officers entered the city they were themselves arrested, and taken before the Mayor. They were ordered to find bail for their appearance before the City Court to answer the charge of violating the quarantine laws. The United States District Attorney said his party acted under the authority of the United States, and by order of the Governor of Texas, and showed despatches from the Governor directing him to take the train through at all hazards. The passengers in the train were released, but the train men and United States officers, refusing to give bond, were detained.

The ordinary meeting of the managers of the Metropolitan Asylums Board was held on Saturday last, under the presidency of Dr. Brewer, when several letters were read from the Local Government Board with reference to the different hospitals under the management of the Board, among them being one in answer to an intimation of the managers of their intention to close Deptford Small-pox Hospital. The Local Government Board expressed their inability to comply with the proposition of the managers, as they consider it would be very detrimental to patients to be removed to a considerable distance from their homes. They therefore suggested that a portion of the Hospital should be kept open for the reception of patients who may require to be admitted. The first intimation of the costly nature of the battle fought by the Board against the late Sir Rowland Hill on the subject of the Hampstead Small-pox Hospital, was made manifest by the presentation of the solicitors' bill for the modest sum of £7587, exclusive of the payment to witnesses; this was ordered to be referred to the General Purposes Committee. It is somewhat curious to speculate what the total bill of costs will amount to before the entire question is disposed of. The return of the number

of small-pox and fever patients treated in the several hospitals for the four weeks ending September 19, was as follows:—Small-Pox: Homerton—admitted 6, died 4, discharged 15, remaining 12; Stockwell—admitted 5, died 0, discharged 11, remaining 32; Fulham—admitted 12, died 4, discharged 29, remaining 20; Deptford—admitted 5, died 2, discharged 7, remaining 11. These figures showed a decrease in the total number remaining of 41. Fever: Stockwell—admitted 95, died 14, discharged 50, remaining 143; Homerton—admitted 115, died 15, discharged 76, remaining 181; showing an increase in the total number remaining under treatment of 55.

The Birkenhead baby-farming case was again before the magistrates on Saturday last, and was once more remanded. Another of the children has died since the last inquiry, and the prosecution are of opinion that when the whole case is completed such a history of crime will be brought to light as to be almost unprecedented. From thirty to forty children handed over to the prisoners are stated to be missing, and so far cannot be traced. The case is considered to be of such importance that at the next hearing the Solicitor to the Treasury is to be present to conduct the proceedings on the part of the Crown.

The Town Council of Brighton have resolved to direct one of their committees to take the necessary steps for introducing a Bill into Parliament next session to enable them to erect an abattoir, with powers to compel its being used by the butchers of the town. The recent fatal accident caused by an infuriated bullock whilst being driven from a shamble to a slaughter-house, has induced the authorities to take action in the matter.

THE REMOVAL OF DELIRIOUS PATIENTS FROM HOSPITAL.

ON Monday last, Dr. Whyte, City Coroner for Dublin, held an inquest on the body of a man who had been brought to St. Michael's Hospital, Kingstown, on the previous Thursday evening, suffering from what was supposed to be alcoholic delirium. The day after his admission, the man, who had been very troublesome, was conveyed in a cab from the Hospital to Dublin, seven miles by road, to be charged before the divisional magistrates as a "dangerous lunatic"; but while in the waiting-room of the police-court he died, apparently of apoplexy. A post-mortem examination showed that he had had acute cerebral meningitis, which might or might not have depended on alcoholism, and that the immediate cause of his death was acute cerebral congestion amounting to apoplexy. The jury found that the cause of deceased's death was apoplexy, and appended the following recommendation: "We would suggest the propriety of having a place specially provided by the public for the treatment of persons suffering from delirium tremens, who cannot properly be sent to a lunatic asylum, or be kept in hospital without injury to other patients."

THE ANNUAL HEALTH REPORT ON BIRMINGHAM.

Few, if any, towns in the United Kingdom are better supervised in their sanitary arrangements than Birmingham. The indefatigable Medical Officer of Health, Dr. Alfred Hill, in addition to issuing a quarterly report on the health of the borough, also publishes, in accordance with the Act, an annual report, a copy of which for the past year has recently come under our notice. From the nature of its industries, and from a casual inspection, it would certainly be imagined that the population of Birmingham was an unhealthy one; but the death-rate for the year under notice was not more than 25.2 per 1000 persons living, which, though it exceeds the rate of mortality in London for the same period

was less than that recorded in either Liverpool or Manchester. In 1877 its death-rate was only 24.8, and the present increase is shown to be attributable to an epidemic of scarlet fever which raged in the borough during the whole of the year, but more particularly, as is usual in the fourth quarter, and also to the prolonged severity of the weather in the last two months of the year, when deaths from diseases of the respiratory organs were more than ordinarily numerous. The zymotic death-rate in Birmingham for 1878 is given as 6.3 per 1000, against rates of 5.6, 7.3, 5.9, 3.6, and 4.2 in the years 1873, '4, '5, '6, and '7 respectively, so that it was higher than in any year of the last six, except 1874, when the last epidemic of scarlatina reached its height, and existed in conjunction with small-pox. Dr. Hill has appended to his annual report carefully compiled disease maps, showing the distribution of scarlatina, measles, and typhoid fever in the borough, so that the authorities can ascertain at a glance to what points their efforts for sanitary improvement should be directed.

INTERNATIONAL MEDICAL CONGRESS.

THE sixth International Medical Congress at Amsterdam was brought to a conclusion by a banquet offered by the profession of Amsterdam to their foreign colleagues. Towards the end of the Congress, Professor Donders, the distinguished Dutch oculist, read a paper on the plan devised by himself for examining the eyesight of railway servants. The experience he offered on the subject was that about 3 per cent. of the officials approved as being possessed of normal sight were totally unfit for railway service. The work did not, however, in his opinion, impair the eyesight, although any servant having reached the age of forty-five years, or having suffered from brain disease, ought to be examined by an experienced oculist every five years. Professor Holmgren, of Upsala, also explained the progress of ophthalmic surgery in Sweden. Dr. Cook, senator of Brussels, reopened the debate on the vaccination question, and in the course of his remarks contended that the arguments against compulsory vaccination were utterly worthless. In the end it was agreed, on the proposition of Dr. Warlomont, to abide by the unanimous adoption of the Vienna Congress proposal in favour of compulsory vaccination. In the Surgical Section, Professor Tilanus (Amsterdam) explained his method for the radical cure of hernia. Before the termination of the proceedings Professor Virchow read a paper on the training of the physician, and Dr. Warlomont put forward a proposition, which was agreed to, that the next meeting of the Congress should be held in England. One of the most remarkable and gratifying features of the Congress was the very warm reception accorded to Professor Lister, not only by his medical brethren, but also by the civic community of Amsterdam.

THE HEALTH OF LONDON.

DURING the week ending Saturday, September 20, there were registered in London 2573 births and 1366 deaths. The annual death-rate from all causes, which had been equal to 20.1 and 18.2 in the two preceding weeks, rose again last week to 19.7. During the past twelve weeks of the current quarter the death-rate has averaged only 18.5, against 22.1, 19.4, and 22.3 in the corresponding period of the three years 1876-7-8. To the seven principal diseases of the zymotic class, 253 deaths were referred, against 305 and 285 in the two preceding weeks. The deaths from diphtheria, which had been 4 and 13 in the two previous weeks, rose to 16 last week. Only one fatal case of small-pox was recorded in London during the week, against 7 and 3 in the two preceding weeks. The numbers of small-pox patients in the Metropolitan Asylum Hospitals have steadily fallen during the past five weeks from 111, to 70 on Saturday last. The

deaths from diarrhoea, which had been 209, 146, and 134 in the three preceding weeks, further declined to 92 last week, and were 8 below the weekly average; 62 were of infants under one year of age, and 20 of children aged between one and five years. The deaths referred to diseases of the respiratory organs, which had been, in the two previous weeks, 143 and 163, further rose to 177, exceeding the weekly average by 2. Seven more cases of suicide were registered. At the Royal Observatory, Greenwich, the duration of registered bright sunshine in the week was 19.1 hours, the sun being above the horizon during 87.4 hours; the recorded duration of sunshine having been, therefore, equal to 22 per cent. of its possible duration.

UNIVERSITY COLLEGE HOSPITAL.

ON Monday, the 22nd inst., the University College Hospital was re-opened for the reception and treatment of patients, after having undergone, during the previous seven weeks, a series of alterations which have greatly improved its sanitary condition and increased the space available for the accommodation of in-patients. Apart altogether from the constantly increasing wants of the sick poor of a populous neighbourhood, the Hospital must have been felt for many years to be too small a field for the clinical training of the students of a large medical school, even with such teachers as Jenner and Erichsen, and their colleagues, ready and apt to make the most of such opportunities as the Hospital afforded for practical instruction by the bedside. That the Hospital now commands a service of 200 instead of 160 beds is therefore a fact which not only increases the direct usefulness of the institution as a medical charity, but also strengthens the University College Medical School in what has hitherto been its weakest department. This additional in-patient accommodation has been provided mainly by the appropriation and remodelling, for the use of patients, of the rooms on the top storey, hitherto used as sleeping apartments for nurses, etc.; although care has also been taken to gain any available space throughout all portions of the building, by the removal of partitions, etc. For the housing of the displaced sisters and nurses, three buildings adjoining the Hospital have been secured on lease. We are glad to find that the authorities of the Hospital have embraced this opportunity to make a thorough overhaul of the whole institution, and to carry out many much-needed sanitary improvements. The sewers connected with the Hospital, as well as the cisterns and water-pipes, have been carefully examined, and repaired and rectified where necessary. We understand that certain remarkable discoveries regarding the disposal of the sewage and the condition of the cisterns were made no sooner than they ought to have been. A most insanitary feature of each ward—the water-closet in the corner, opening directly into the ward—has in every case been replaced by a new and more satisfactory arrangement, which also gains for the ward the whole cubic space formerly occupied by the closet. Precautions have been taken to secure good ventilation throughout the whole building, Tobin's slits being freely used in every ward; and also, in Mr. Marshall's wards, that gentleman's modification of Tobin's method. A prominent feature in the re-modelled Hospital, as a field for clinical study, will be the relatively large number of beds allotted to the physicians in charge of the obstetric and skin departments and to the ophthalmic surgeons. In addition to all these improvements within the Hospital itself, we are glad to learn that, to promote the comfort of the patients, the Vestry of St. Pancras have agreed to pave with wood the streets adjoining the building. Altogether, it will be seen that University College Hospital has entered upon a new term of wider usefulness both as a public charity and as a school for clinical instruction.

THE METRIC SYSTEM IN MEDICINE.

GREAT efforts have recently been made by certain Americans, and notably by Dr. E. Seguin, of New York, to have the metric system adopted universally by their countrymen in the prescription and measurement of drugs, and indeed generally. It may also be remembered that Dr. Seguin pressed his views on this subject upon the attention of the British Medical Association at its last meeting, with the result that a committee—consisting of Dr. Clifford Allbutt, Dr. Lauder Brunton, Dr. Sieveking, Professor Fraser (of Edinburgh), Professor Harvey (of Aberdeen), Dr. Quain, and Mr. Ernest Hart—was appointed to report on the means of introducing in Great Britain the metric system in medicine. There can be no gainsaying the force of the arguments brought forward in favour of this system by its advocates, who urge its general adoption by Great Britain and America not only on account of its own merits as the most simple numerical system, but also on account of the fact that these are the only two countries of scientific importance which have not already adopted it as the standard system; the result of which anomaly is that much inconvenience is experienced by English-speaking physicians in converting foreign prescriptions and measurements into their own standards, and *vice versa*. The adoption of the system is further advocated as a necessary preliminary to the establishment of international uniformity in medicine and pharmacy—an international pharmacopœia, in fact—the principle of which was approved of by the International Medical Congress at its fifth session held at Geneva two years ago. It appears that considerable progress has already been made in America in the introduction of the metric system in medicine; but we fear that some considerable time must elapse before it can be generally adopted in this country. The process of introduction must be a gradual one, but there are many good reasons in favour of the attempt. A great step would be effected by the universal adoption of the system by those chemists who lecture at our medical schools; and a still greater step would be the recognition of the system in the next edition of the "British Pharmacopœia," in which metric measures could in all cases be given, either alone, or, what would be preferable in the first instance, along with the measures now in use, as has been done in the recently issued American National Dispensatory of Stillé and Maisch. There can be little doubt that the universal establishment of the system would assist in some degree the progress of practical therapeutics.

ENTERIC FEVER AT SELBORNE, HANTS.

IN consequence of the persistent presence of enteric fever in the village of Selborne—Gilbert White's Selborne—the Rural Sanitary Authority applied to the Local Government Board for a medical inspector to investigate the particulars of the epidemic, and to advise as to the means to be adopted for the prevention of the disease in the future; and Dr. Blaxall was sent down to the place in the first week of May in the present year. He reported on the matter very early in June, and his report deserves a brief notice, as the spread of the disease was in this case clearly traced to the use of infected water, and in that respect contrasts with the Chichester outbreak of enteric fever, which we noticed last week. The geological formation of the parish of Selborne belongs to the cretaceous system, and includes the chalk, upper greensand, gault, and lower greensand; and the village stands on rising ground upon the upper greensand at its junction with the chalk marl. The cottages present a clean and comfortable appearance; but the village is virtually unprovided with drainage. The privies are generally of the most unwholesome description, discharging into pits that are usually mere excavations in the soil. Most of them

contained large accumulations of filth, the intervals of removal being very irregular, and often prolonged to several months or even years; and the liquid contents meantime soaking away and fouling the soil. The water-supply is mainly derived from wells, but in some instances from tanks, or from two streams that, rising from the chalk hills, flow one along the northern and the other along the eastern sides of the village. The wells vary from thirty to seventy feet in depth, but many of them are dangerously near foul privy pits, and are exposed to contamination by surface impurities; and the water in some was found on analysis to be quite unfit for domestic purposes. Two of the tanks that came under observation were exposed to pollution. And the streams became polluted also, almost at their source, by drainage from farmyards and cottages. After an admirably minute and exhaustive inquiry, Dr. Blaxall arrived at the conclusions that the introduction of the "fever" into Selborne was probably due to importation from East Grinstead by the mother of one of the inhabitants of Selborne, and that the subsequent outbreak and spread of the disease might be regarded as the result of the foul privies and impure water-supplies having become specifically contaminated by the evacuations passed by persons suffering from enteric fever. Altogether, a total of forty-six cases of typhoid fever, distributed among twenty-four families, occurred, with three deaths; and were due to the neglect of the plainest sanitary precautions. All lovers of Gilbert White, as well as all lovers of health, will desire to learn that the Sanitary Authority of Selborne have been roused by Dr. Blaxall's report into doing their utmost to make the village as healthy and attractive as its situation is charming. But as, when he visited the place for a second time, he found that the Authority had not even begun to attempt to carry out the recommendations he had made a fortnight before, we fear the case is not a hopeful one.

ROYAL SANITARY COMMISSION, DUBLIN.

MR. ROBERT RAWLINSON, C.B., Chief Engineering Inspector to the Local Government Board, and Dr. Frederick Xavier MacCabe, Inspector to the Local Government Board for Ireland, have been appointed her Majesty's Commissioners, "empowered and authorised to make and institute an inquiry touching and concerning the present system of sewerage and drainage in the city of Dublin, in so far as such sewerage and drainage affect the sanitary condition of the said city, and the state of the river Liffey which flows therein, and to inquire whether such system is directly or indirectly prejudicial to the public health, and whether any and what changes are necessary therein, with a view to sanitary improvement." Public notice has been given that the Commission will open on the 30th inst. in the City Hall, Dublin; and we have to express an earnest hope that the inquiry into the sanitary state of Dublin will be made as full and searching as possible, and not limited, as the terms of the public announcement would lead one to believe, to the questions merely of sewerage and drainage.

THE HEALTH OF HAMPSTEAD.

THE report of Mr. Lord, the Medical Officer of Health for Hampstead, relative to the past year is, on the whole, very satisfactory, showing a death-rate of only 13.25 per 1000, though an outbreak of a typhoid type occurred in the south-western district of Kilburn. The population of Hampstead, which twenty years ago stood under 20,000, he estimates now at 44,440 persons. He tabulates and gives in detail the drainage works, new roads, pathways, gas, etc., and records the results of the public analyst's report upon the samples of milk, etc., submitted to him for test. Mr. Lord records with

satisfaction the erection of a mortuary as an adjunct to the new cemetery, and also expresses a hope that in the course of time the practice of burial will give way to that of cremation on purely sanitary grounds. He again recommends the erection of public baths and wash-houses for Hampstead, and that of latrine accommodation for females. Mr. Lord now retires from the office, the onerous duties of which he has, for more than a quarter of a century, so ably and zealously discharged, and will carry with him the good wishes of all who know him. The Vestry of Hampstead will be fortunate if they succeed in finding an equally intelligent, able, and efficient successor.

THE "DENTISTS' REGISTER."

THE first "Dentists' Register," printed and published under the direction of the General Council of Medical Education and Registration of the United Kingdom, has just appeared, and will doubtless be examined with some eagerness and curiosity by very many medical men who are directly concerned in its contents. The work is got up with all the care and completeness that invariably characterise the work of the Registrar of the Medical Council, and gives much information besides that contained in the "Dentists' Register." From a table showing the number and qualifications of persons registered up to August 1, 1879, we learn that 5289 persons were at that date on the "Dentists' Register," of whom 483, or 9.13 per cent., were Licentiates in Dentistry; and 4806, or 90.87 per cent., were "*bonâ fide* dental practitioners." Of these 4806 persons, on their own declaration in the *bonâ fide* practice of dentistry, 2707, or 51.18 per cent., practised dentistry separately; 17, or 0.32 per cent., in conjunction with medicine; 11, or 0.21 per cent., with surgery; 20, or 0.38 per cent., with medicine and surgery; only 2, or 0.04 per cent., with surgery and pharmacy; and 2049, or 38.74 per cent., in conjunction with the practice of pharmacy. Of these 5289 "United Kingdom Dentists," two died before August 1; but two foreign dentists obtained registration, so the total number remaining in the Dentists' Register of 1879 is 5289. Of the United Kingdom dentists, 5163, or 97.62 per cent., are resident or engaged in practice within the United Kingdom; and 126, or 2.38 per cent., beyond the limits of the kingdom. The two foreign dentists are Doctors of Dental Medicine of the University of Harvard.

DIPHTHERIA IN THE RURAL SANITARY DISTRICT OF BARNSTAPLE.

IN consequence of an outbreak of diphtheria in the Rural Sanitary District of Barnstaple, which occurred in the fourth quarter of 1878, Dr. W. Ogle was despatched by the Local Government Board in May last to inquire into the circumstances which might have caused it. The area affected was circumscribed, consisting of some thirty cottages and farmhouses situate about two miles from the village of Swimbridge, and known as Cobbaton. All these cottages were visited and inspected by Dr. Ogle, and, taken as a whole, were not found to be inferior to the general run of labourers' cottages in other places, nor were the nuisances observed of an exceptional nature or amount. But the evidence of the Medical Officer of Health and the Inspector of Nuisances of the district pointed to a very different state of affairs as having existed some six months previously, at the time of the outbreak, when there had been a very large proportion of privies ill-constructed and in a filthy state, large dungheaps of offensive character, and among the wells in use two with obviously polluted water. When Dr. Ogle arrived at Cobbaton these nuisances had been mostly dealt with, the two wells were not in use, and the place may be said to have been brought to an average condition of cleanliness; he was

therefore unable to form any distinct opinion as to the amount of unhealthiness to be attributed to nuisances which no longer existed. The Medical Officer of Health attributed the outbreak to the unsanitary condition of the place, and had recommended in one of his annual reports a house-to-house inspection—a recommendation, however, which was not acted upon. The outbreak was limited to a very short space of time, rather more than a month; and previously there had been no diphtheria in the Cobbaton district for many years, although about fourteen years before cases had occurred in one of the same cottages which suffered on the present occasion. The only known cases of diphtheria in the district had been two, both fatal, at Eastcombe, not only three or four miles away, but separated from Cobbaton by the valley of the Taw; there was reason to believe, also, that there had been some non-fatal cases in the urban district of Barnstaple, more than six miles away, but no transference of disease germs could be traced; and as the children who were attacked at Cobbaton had not been away from home, either the infection must have been brought to that place in an untraced way, or have been developed in the place itself. In the first week of October, two girls in a cottage at Cobbaton were attacked by sore throat, swelling at the angle of the jaw, and vomiting; their illness was so slight that no medical assistance was obtained, and they were kept from school only two days, after which they attended regularly to the end of the month. Later on in October a third child fell ill in a cottage, and died on October 21. This child was attended by a medical man, who assured Dr. Ogle that the “convulsions,” to which the death was attributable, were certainly not connected with diphtheria. The earlier unattended cases were, however, in Dr. Ogle’s opinion, mild cases of genuine diphtheria, and those which followed may probably be traced to these. On October 15, a boy, in a cottage at a considerable distance from the last mentioned, was attacked by undoubted diphtheria; for though his sore throat was not severe enough to compel medical assistance, it was followed (as later medical observations proved) by albuminuria and nasal phonation. Moreover, all the other occupants of this cottage, five in number, were shortly afterwards attacked by diphtheria, and one of them died. The boy first attacked in this family attended school up to and including October 14, and a sister who fell ill later on attended school up to and including October 23. In the third week of October three more cottages were invaded, and of the persons who fell ill, five in number, four died. It was impossible to ascertain with perfect certainty the exact date on which each household was attacked. The *first* case, however, in each was a school child, and the school register enables the date to be fixed with tolerable precision. On October 24 one family sought medical advice, and a few days later the Medical Officer of Health advised the removal of certain nuisances and the closing of the school. A few days after this latter precaution had been taken another family was attacked, and the single case that occurred in it—a fatal one—was that of a girl who had attended school for the last time on October 28, and who in the interval had been carefully kept from all intercourse with the affected cottages. This case Dr. Ogle hoped might have afforded valuable evidence as to the incubation period of diphtheria; but he wisely hesitated before trusting implicitly to the mother’s exactitude as to dates. This was the termination of the outbreak, which numbered fourteen cases, occurring in six cottages, of which no less than six were fatal. All six cottages were widely separate, with apparently nothing in common; each had its water from a totally different well, and each one procured its milk from a different farm; and, as far as could be learned, no disease was at the time prevalent amongst cattle. Thus

everything pointed to the school as the source of distribution; and though out of the fourteen cases six were not school children, yet in each household attacked, the first case, and in three of them the only case, was a child from the school. Moreover, throughout the entire month of October there were children in constant attendance at the school, who, though apparently in good health, were yet, there is good reason to believe, capable of communicating the infection, if it be admitted that the power of transmitting infection attaches to persons after apparent recovery for a period which, though indefinite, is certainly much over a month. Again, the outbreak may be said to have come to an end with the closing of the school. Dr. Ogle specifies the two objections which may be taken to this view, but there seem good grounds for agreeing with his opinion that the closing of the school alone, in all probability, prevented a much larger proportion than six families out of twenty-three being attacked. The number of deaths in proportion to the number of cases was very large, and is attributed by the Medical Officer of Health to “bad nursing.” Dr. Ogle adds that a hospital for the isolation and proper treatment of the sick is much wanted in the district, and that perhaps the nursing arrangements of such a hospital might be utilised for the services of the poor of the district in their own homes.

THE ARMY MEDICAL DEPARTMENT AGAIN.

THE examination for the Army Medical Department, which was announced to be held in September, has, we understand, been postponed pending the consideration by the Treasury of the new warrant. It is hoped by the War Office authorities that the Treasury decision may be given in time for an examination to be held before the next session of the Army Medical School at Netley.

THE COMBINED SANITARY DISTRICT OF WEST SUSSEX.

THE Medical Officer of Health for the Combined Sanitary District of West Sussex, Dr. Charles Kelly, is entrusted with the supervision of a rather extensive area, since his charge extends to no less than six rural and two urban districts. The locality, however, is a peculiarly healthy one; and as Dr. Kelly remarks, in his fifth annual report, for the year 1878, the south-eastern division of the kingdom, which includes five counties, has always a lower rate of mortality than the other registration divisions; thus the death-rate of the whole district for the year 1878 was only 16 per 1000 per annum. The deaths from zymotic diseases in the whole district during the year amounted to 138, or 1·6 in every 1000 persons living; whooping-cough, measles, and diarrhoea were more prevalent than in the preceding year, but there were very few deaths from measles compared with the large number of children attacked. Diphtheria was also very prevalent in the north-west part of the district; and Dr. Kelly observes that this disease occurs with greater frequency in villages on the weald clay and upper greensand than in places upon other soils. It is more common on the north than on the south side of the Downs; and it prevails more in an epidemic form on an impervious and cold soil, and is more frequently associated with damp and cold north-easterly winds. The infant mortality during the year—101 per 1000 children born—was higher than in 1877, but lower than in 1876. The deaths at different ages were divided as follows:—388 children died under five years of age; 435 persons died between the ages of five and sixty; and 531 persons deceased were aged sixty years and upwards.

LONDON HOSPITAL.

DR. RAMSKILL resigned his appointment of Physician to this institution on the 23rd inst., after twenty years’ service, and was the same day elected Consulting Physician to the Hospital.

THE DISEASES AFFECTING EUROPEAN RESIDENTS IN JAPAN.

DR. STUART ELDRIDGE (YOKOHAMA) ON POISONING BY FISH.

THE question of poisoning by fish is one of which little is definitely known. The study of the subject has been impeded by the fact that cases of severity have generally occurred in the less civilised portions of the globe, but still more by the, as yet unexplained, phenomenon that even among those species well known as dangerous, the poison appears to be confined to certain individual specimens, or, if more general in its distribution, at least to certain seasons of the year.

Many of our more common fish—for example, the salmon—are well known to be unwholesome when, as it is phrased, “out of season,” and any fish when stale may produce the usual symptoms caused by decomposed animal matter.

Rather alarming, but rarely fatal, consequences are sometimes produced both in Japanese and foreigners by the use of the flesh of the katsuo and maguro (? bonito and albacore). They appear to be injurious only when very stale, but there are certain symptoms in these cases—for example, the intense congestion of the head and face—which it is difficult to explain in accordance with the supposition that the ill effects of the fish are due only to decomposition.

I have met with one case in a foreigner in which the head symptoms were for a time quite serious.

The term fish poisoning, however, is not often used as applying to such cases as the foregoing, but in reference to those in which there is evidently an active poison existing in the fish, irrespective of its condition as to freshness or staleness—a poison sometimes so energetic and fatal as to be comparable only to the most deadly agents known to science.

Many theories have been offered in explanation of the toxicological action of certain fish. Some ascribe it to a “morbid element generated in the fish at certain times,” which can hardly be regarded as an explanation. Others ascribe it to a supposed idiosyncrasy of the sufferer. Idiosyncrasy is a convenient explanation of any little understood affection of the kind, but in this case the individual peculiarity certainly appertains rather to the fish than to its consumer. In the present state of our knowledge the facts do not admit of more than a probable explanation.

Cases of severe or fatal poisoning are recorded as having been caused by fish belonging to many and widely separated genera, and as having occurred in almost every portion of the globe, more especially within the torrid zone. Pappenheim (“Handbuch der Sanitäts-Polizei,” i. 395) gives a list of more than forty species which are occasionally poisonous. Among the tribes which have furnished cases of poisoning are the mackerels (*Scomberidæ*), the perches (*Percidæ*), the porgies (*Sparidæ*), the herrings (*Clupeidæ*), the weavers (*Trachinidæ*), the becuna and barracouda (*Sphyrænidæ*), and above all, a large number of species of the order *Pectognathi*, or fish characterised by the structure of the bones of the upper jaw, which, contrary to the rule, are immovably united into one, and often moulded into the form of teeth, thus giving to the mouths of some species a close resemblance to those of certain quadrupeds.

Of the six genera commonly given as belonging to the order *Pectognathi*, I have found five mentioned as occasionally poisonous, and it is with species of some of these genera that residents in Japan are most deeply concerned. It is to this order, genus *Tetrodon*, or four-toothed, that the several species known to the Japanese under the general title of *Fugu* belong, the often intensely poisonous qualities of which have long been recognised, and, in consequence, their use at different times prohibited by law.

To a paper read before the German Asiatic Society of Japan, by Dr. A. Goertz, of Yokohama, I am indebted for a description of the symptoms produced in three cases of *fugu* poisoning, one of which was that of a foreigner. In these three cases—but one of which proved fatal, though the others were sufficiently alarming, and death apparently averted only by most energetic treatment—the symptoms were most rapid in onset, first appearing in one case within a quarter of an hour after eating the fish, in the others within half an hour and three-quarters of an hour respectively. All were

first attacked by headache and nausea, which was quickly followed by great muscular weakness, failure of pulse and respiration, depression of temperature, and total insensibility, the whole indicating a most energetic action of the poison upon the great nervous centres, with special tendency toward the pneumogastric nerve. That the *fugu* poison is one which acts with great rapidity, is shown by the facts that in the fatal case the patient had received an effective emetic within half an hour after partaking of the fish, and that in all three cases total insensibility occurred within one hour after the reception of the poison.

Fonssagrives and Leroy de Méricourt (*Annales d'Hygiène*, October, 1861) and B. W. Richardson (“Diseases of Modern Life,” page 344) describe the symptoms produced by poisonous fish as closely corresponding to the above, while Dr. Houghton of Sarawak (*Lancet*, 1876, ii. 939) mentions thirteen cases of poisoning by *Tetrodon hystrix* (a fish closely allied to the Japanese *fugu*, and perhaps identical with one species) in which the phenomena were perfectly parallel to those reported by Dr. Goertz. It is noticeable that in the cases of the latter gentleman, as well as in the thirteen at Sarawak, only those persons were attacked who had partaken of the roe of the fish, and that Fonssagrives and De Méricourt, in the article above mentioned, state that the roe appears to be the most poisonous part. Cases of serious character have even been reported as due to the roe of several of the more common European fish—e.g., the pike and barbel.—(Max Simon, *Bulletin de Thérapeutique*, xxxvii. 49.)

Next to the roe, the liver of the *Tetrodon* is probably the most dangerous portion. Cases of death within seventeen minutes after partaking of the part are reported from the Cape of Good Hope. Dr. Goertz, on the authority of Kæmper, states that the Japanese believe that the *fugu* may be eaten with safety if the head, the bones, and the contents of the abdomen are removed.

As in despite of the double danger of death and legal punishment attaching to the use of the *fugu*, the Japanese, who are exceedingly fond of it, persist in its consumption, and as their carelessness of their own lives may at any time involve those of their employers, as in one of Dr. Goertz's cases, it is well to be able to recognise the general characteristics of the *fugu* tribe, and to avoid the use of the roe of any fish not perfectly well known as safe.

In untechnical language, the varieties of *Fugu* or *Tetrodon* most usual in Japan may be described as follows:—Size variable; more common species seven to ten inches long, some of twenty to twenty-four inches in length. General appearance of fish clumsy and ungraceful. Head short and disproportionately large, with an abrupt slope from the prominent mouth to top of head; a wide space between the eyes, which are comparatively large. Belly large and often prominent or inflated, most species having the habit of blowing themselves up with air when first taken from the water—a process which often converts the fish into a mere bladder. Skin covered with small scales, sometimes with spines, or both spines and scales. Fins rather small; tail somewhat rounded, as if by cutting. Jaws projecting; both upper and under jaw solid, and divided into two teeth which are not covered by the lips. Colours dull, back and sides generally brown or greenish-brown, mottled with black or ashy spots above; belly white, bluish-white, or yellow. Of these characteristics the formation of the mouth is the most distinctive, and it is well to be suspicious of any fish exhibiting this peculiar structure of the jaw, or a closely resembling arrangement of the parts, as there are allied genera, known to be sometimes poisonous, which differ from the commoner *fugu* chiefly in that the jaws are either not separated into teeth at all, but form a solid bony arch, as in the *Diodon* (sunfish); or have the upper jaw divided into two teeth, the lower being solid, as in the *Triodon*; or have each jaw divided into eight to twelve teeth, as in *Balistes* and *Ostracion*. The small square and box-like fish, covered with hard armour, which is so often, when dried, offered for sale as a curiosity at Inoshima and elsewhere, belongs to the genus *Ostracion*, and is sometimes poisonous.

The injurious effects produced by *Crustacea* and *Mollusca* are rarely so grave in their character as are those caused by the more poisonous fish. The mischief is generally due either to simple indigestibility or to incipient decomposition, the latter more especially as regards the *Crustacea*, such as crabs, prawns, and lobsters, which are hardly dead before putrefaction begins. Of the cases of so-called poisoning

by prawns and oysters, which are by no means uncommon in Yokohama, most of those which have come under my observation have been but attacks of acute indigestion. There is, however, no doubt that some species or individuals both of the molluscs and crustaceans are, at least occasionally, specifically poisonous, independent of indigestibility or decomposition. The symptoms produced are those of irritant poisons, such as abdominal pain, vomiting and purging, to which, in the severer cases, is added a grave depression of the nervous system analogous to that produced by the *fugu*, as described above.

As in the case of fish, no satisfactory explanation has as yet been given of the deleterious effects of these lower tribes. In the case of the oyster, the poisonous action is popularly ascribed to the presence of copper, but most careful analysis has invariably failed to demonstrate sufficient of the salts of this metal to account for the phenomena. In the case of the edible mussel, which has frequently caused death, Orfila long ago suggested the possibility that its occasional virulence is due to the feeding of the mollusc upon the spawn of star-fish ("Leçons de Médecine Légale," i. 195.) This opinion has lately been reiterated by De Beunie, the latter having found by dissection that certain poisonous mussels had undoubtedly been feeding upon the ova of the star-fish, and by experiment that this spawn was a severe irritant even to the external surface of the body (*Journal de Pharmacie et de Chimie*, 1871, page 298).

I believe it to be susceptible of proof that oysters taken from the canals in Yokohama and Tokio, or from the immediate neighbourhood of these conduits, are more frequently injurious than are those taken from purer and more open water. In view of the fact that the canals in question are little more than open sewers, a possible explanation of the facts readily suggests itself.

As fish poisoning in its graver forms is fortunately very rare among foreign residents, and as cases of the kind when non-fatal lead, as a rule, to quick recovery, I find no entries under this heading in the books either of the Hospital or the Cemetery, with the single exception of two cases simultaneously admitted to hospital in 1868, in which the diagnosis of poisoning by shell-fish was made, but a note is appended ascribing the disease to the use of canned lobster which had been for several days open. Neither case was fatal, nor can they fairly be considered as due to any cause other than the decomposition of the shell-fish. (a)

FROM ABROAD.

THE DIARRHŒA OF CHILDREN.

(Continued from page 351.)

THE second paper upon this subject was read by Dr. Jacobi at a meeting of the Medical Society of the County of New York, and reported in the *New York Med. Record*, July 26.

Of all the deaths in the first year of life, he observes, 40 per cent., in round numbers, were due to disease of the digestive organs, and half as many to those of the respiratory organs; but in the second year the main cause of death completely changed, for of the 45 per cent. of deaths then taking place, but nine were due to the digestive organs, while thirty-six were due to respiratory diseases. Mortality diminishes every day with advancing life, every additional hour improving a baby's chance of preservation. Almost one-half of the children dying before the end of the first year died before they were a month old—the causes of decease being the more active the earlier they were brought to bear upon the young with their defective vitality. Two grave conclusions were to be drawn from this fact. First, the diminution of early mortality depended on avoiding diseases of the digestive organs by insisting upon normal alimentation. This was of principal importance in the first few months. While breast-milk had been shown to lower infant mortality through the whole of the first year, it did so more in the first few months; so that a great gain is accomplished even when we can insist upon suckling only for a limited period—perhaps two months only. Few mothers are in-

capable of nursing for this brief time. The second conclusion is, that the dietetic problems and rules for the infant concerned the digestive organs mainly. It is a fallacy to suppose that a higher mortality is to be looked for in the second summer than in the first; but whatever danger does attach to it arises mainly from errors of feeding. Another dangerous fallacy is the belief that diarrhœa—a pathological condition—is a normal attendant upon and a relief of a physiological process, such as dentition. "It is certain that very few, if any, popular beliefs have been more destructive than that an intestinal catarrh must be left alone, no matter from what source it originated."

Healthy infants have a normal tendency to loose, liquid, or semi-fluid evacuations, arising partly from the condition of the intestinal tract, and partly from the nature of their normal food, the breast-milk. The peristaltic movements are very active, the young bloodvessels are very permeable, the transformation of surface-cells very rapid, and the peripheric nerves are much more superficial than in the adult. The peripheric ends of the nerves are larger in the young than in the adult, and the reflex irritability is greater. The action of the sphincter is not powerful, so that the fæces are not retained in the colon and rectum, and absorption of their liquid or dissolved constituents does not take place. The frequency of acids, sometimes normal, in the small intestine gives rise to the formation of alkaline salts with purgative properties.

The nature of the breast-milk, even when quite normal, also favours frequent, large, and fluid evacuations. Thus, in the most normal milk there is more fat than is required, and a good deal is eliminated without any change. What is called detritus in the fæces of infants is mostly fat, probably with remnants of intestinal epithelium. The fact is of great importance, showing that we may easily give too much fat, and scarcely ever too little. The addition of cream, for example, in whatever form, is mischievous. In the first period of lactation the glandular transformation has not yet been accomplished, days being required to exhibit casein, and the percentage of butter and fat being very high, the laxative character of the colostrum is explained. As to sugar, it is abnormally plentiful in colostrum, while in some milks, at times, its percentage is lower than normal. In the former it is purgative, while in the latter its absence is one of the causes of constipation. This state may be relieved by giving the infant a piece of sugar dissolved in a teaspoonful of water just before each sucking. When a high percentage of casein is present it may constipate, or if it remain undigested it acts as a local irritant, inducing diarrhœa. The stools are then mixed with large or small white flocculi, sometimes in astonishing quantities, and for a long period. The treatment of such a diarrhœa is not easy unless the breast-milk is changed. When this cannot be done, a few teaspoonfuls of barley-water or oatmeal-gruel should be given just before each sucking. In reference to other milks, Dr. Jacobi thinks that of the goat should be rejected on account of its large percentage of fat. Cow's milk contains more butter than human milk, and is therefore more liable to irritate the intestinal canal when undigested. Its reaction, too, is less alkaline; but the chief difficulty about it is the large percentage and the nature of its casein. The casein of cow's milk has an acid reaction, and is only soluble in water in the proportion of one to twenty, while that of human milk is alkaline or neutral, and almost entirely soluble in water. There is less casein also in woman's milk; and the fact is beyond doubt that the casein of the cow is very much less digestible than human casein. In order to render the casein of cow's milk less indigestible, Dr. Rudisch has introduced a manipulation which promises to be of great value in all cases in which the coagulability of the milk is the great obstacle to its usefulness. To one pint of water is added half a teaspoonful of officinal dilute muriatic acid (four parts to sixteen); to this add a quart of cold milk, mix thoroughly, and boil for ten or fifteen minutes. Dr. Jacobi has found this mixture, which he has used mainly in the diseases of adults (anæmia, gastric catarrh, ulcer of the stomach, slow convalescence, etc.), very digestible, and well tolerated by very feeble digestive organs. Another and a more simple and yet effective method of making cow's milk more available is the addition of chloride of sodium, without which it should never be given. Still more so should this be done when farinaceous mixtures are also given.

(a) Since the above was written, the writer has been engaged in experimental researches upon the *fugu* poison, his results being of so positive a nature that he hopes at no distant day to present an account of the subject more complete than any yet published.

Preventive Treatment of Diarrhœa depending upon defective feeding consists in so changing and arranging the milk as to prevent the casein coagulating in large lumps; and this is done by the addition of farinaceous food that does not contain much starch, viz., by diluting the boiled and skimmed milk with barley-water or oatmeal gruel. It is boiled in order to check its tendency to become sour, to remove a portion, though small, of its casein and fat, and, to expel the gas contained in raw milk to the amount of 3 per cent. Dr. Jacobi prefers barley, which should be ground as thoroughly as possible in a coffee-mill, both in order to diminish the period necessary for cooking it, and also to retain the gluten. For very young infants it is preferable to cook the barley whole for some hours (thereby bursting the outer layers of cells, emptying their contents), and then, by straining, getting rid of the larger part of the starch which is found towards the centre. There is no danger to which little children are so liable as that which arises from their tendency to diarrhœa; and Dr. Jacobi advises that barley should be administered to those who manifest a tendency to diarrhœa, and oatmeal to such as have a tendency to constipation—giving the one or the other whenever a change occurred in the intestinal functions, according as constipation or diarrhœa predominated. This mixture he regards as a *sine quâ non* of the thorough digestion of milk, and by it alone can the proper nourishment of the infant be secured. By the aid of this mixture children will endure the heat of summer without any illness. Should a slight diarrhœa occur, or a little casein be vomited, or casein occur in the stools, all that is necessary is to diminish the proportion of milk. It might sometimes be necessary, but very seldom, to withdraw the milk entirely for a time, but only in cases of real illness. Infants that are partly nourished at the breast almost invariably thrive well with the addition of this mixture; and children from their fourth or fifth month and upwards may often be fed with it exclusively, and not infrequently nothing else is given from the day of their birth. Although Dr. Jacobi prefers the addition of barley or oatmeal for the purpose of rendering milk digestible, yet gum-arabic and gelatine are also very valuable ingredients of infants' foods.

Curative Treatment.—1. The amount of food given should either be reduced or the intervals between the meals should be increased, or both, so that the child do not take more than it can digest. When diarrhœa comes on in an infant which has been weaned, it is desirable to return to the breast; and to children who have never had breast-milk it may be given if they can be got to take it, which is rarely the case. When a child at the breast has diarrhœa, and a certain amount of curd is found in the motions, one or two teaspoonfuls of barley-water should be given just before each time of nursing, or the breast-milk may be alternated with barley-water. In bad cases, and particularly where the milk is found white and heavy, and containing a great deal of casein, it is necessary to deprive the child *altogether* of its usual food, and it will do better on barley-water alone for a day or two than to be exposed to the injury which would certainly result from continuing casein food. When diarrhœa occurred in children who had been fed upon cow's milk, mixed or unmixed, the proportion of this must be reduced; and if the reduction does not suffice, it is better to deprive the child of milk food altogether. Not infrequently such deprivation is the only thing that will restore the child; and in cases in which barley-water does not seem sufficient as a nutriment, or where it would be dangerous to allow the child to lose strength, a serviceable food is made by mixing an egg in from four to six ounces of barley-water, and adding a small quantity of salt and sugar to make it palatable. Large or small quantities of this may be given according to circumstances; but when the stomach is irritable it is sometimes better to give only one or two teaspoonfuls, repeating the dose every ten, fifteen, or twenty minutes, than to give larger quantities at longer intervals. Where the strength has suffered greatly, brandy should be added to the mixture so that the child would take from a drachm to an ounce in the twenty-four hours.

"In those extreme cases in which the intestinal catarrh is complicated with gastric catarrh, where the passages are numerous and copious, and vomiting constant, where both medicines and food are rejected, there was frequently but one way to save the patients, and that was to deprive them *absolutely* of everything in the form of food, drink, or medi-

cine. It is true that such babies would suffer greatly from thirst for an hour or two, but it is a fact that, after two or three hours, these children look better than before the abstermious treatment was commenced. Not unfrequently, four or five hours of total abstinence would suffice to quiet the stomach and diminish both the secretion and the peristaltic action of the intestines. In some cases, *six* or *eight* hours of complete abstinence would be required, or such children might be starved for even *twelve* or *sixteen* hours, with final good results. The first meals afterwards must be quite small, and they would be retained; and, as a rule, such children subsequently do well.

2. After dwelling on the necessity of supplying the patient with as much cool fresh air as possible, the worst outdoor air being better than close indoor air, Dr. Jacobi stated as the second indication of treatment the removal of all undigested masses from the intestinal canal, and that not only when there had been errors of diet, but in cases dependent upon sudden changes of temperature and exposure. For this purpose castor-oil, calcined magnesia, or calomel may be used.

3. Nothing should be given containing salts in any sort of concentration. Thus beef-tea, which contains a large amount of such, is to be avoided; or, if its administration was insisted upon, and in a given case there was no special contra-indication to its use, it should be administered only in connexion with a well-cooked farinaceous vehicle (barley-water being the best), or mixed with beaten white of egg, without addition of salt.

4. Everything should be avoided capable of increasing peristaltic action, as the use of carbonic acid or ice internally.

5. Everything is to be avoided tending to increase the already too large quantity of acid in the stomach and intestines, and which requires neutralisation. For this purpose lime is better than soda or magnesia; but too much reliance must not be placed upon the popular remedy, lime-water, seeing that at least two ounces must be swallowed to obtain a single grain of lime.

6. The necessity of destroying ferments. Most metallic preparations are of good service here, and of the anti-fermentative effect of *calomel* Dr. Jacobi has no doubt; from one-tenth to half of a grain may be given every two or three hours. When *nitrate of silver* is given for this purpose, it should be given largely diluted, from one-fortieth to one-sixteenth of a grain dissolved in a table- or tea-spoonful of water being given every two or three hours. *Bismuth*, in cases of moderate diarrhœa, is speedily useful in doses of half a grain to two or three grains. When the diarrhœa has lasted long the doses must be large.

7. Another indication is the depression of the hyperæsthesia of the general system and of the intestinal canal. *Opium* in small and frequent doses may be used with perfect safety. Whenever there is fear of collapse, it is safer to give one two-hundredth of a grain every half-hour or hour, than one-fiftieth of a grain every two hours. One of the rules in the administration of opium is that the child should not be awakened for the purpose of taking it.

8. *Alcohol*, in small and frequent doses, stimulates the nervous system, digestion, and circulation, and by its action on the skin increases perspiration. So given it certainly arrests fermentation. It also acts favourably as a food when no solid carbo-hydrates are tolerated in the intestinal canal.

9. For the reduction of the amount of intestinal secretion the various astringents may be resorted to, but these will be of little avail when the stomach participates in the morbid process to any extent. A powder which Dr. Jacobi has found very efficacious is formed of bismuth gr. j., prepared chalk gr. ij., and Dover's powder gr. $\frac{1}{2}$ (for an infant ten or twelve months old), and taken every two hours. In cases of debility and collapse, camphor from a quarter to half a grain may be given when only moderate stimulation is required. In urgent cases of real collapse from five to ten grains are required. But in such cases no remedy acts so favourably as musk, in doses of five to ten grains every half-hour or hour, not more than two or three such doses being required.

THE Ennistymon (County Clare) Board of Guardians have decided to reduce the salary of their sanitary officers by one-fourth, and have forwarded to the Local Government Board a resolution declaring that the appointments of such officers were "mere sinecures."

REVIEWS.

Zur Geschichte und Methode des klinischen Unterrichts. Von Dr. GUSSEROW. Berlin: Hirschwald. 1879. Pp. 47.

A Contribution to the History and Methods of Clinical Teaching. By Dr. GUSSEROW.

THE little brochure before us is an address which was delivered by its author at a recent commemoration meeting of the military medical establishments in Prussia. It contains much that is worthy of attention at a time when our medical schools are preparing to begin their winter's work. We therefore propose to notice it at some length.

"Among the many causes," says our author, "which have combined here in Prussia to bring about and maintain the present status of the military medical institutions, there appears to be one worthy of considerable attention, viz., that the gentlemen at the head of these establishments have always so managed them, that, contrary to what obtains in other countries, they are not isolated and merely technical schools, but, on the contrary, stand in the closest and most intimate relationship with the universities."

"For, although it was undoubtedly a spirit of wise economy which first prompted to the amalgamation of the Military Medical School with the Berlin High School at the period of its foundation, it was further and correctly anticipated that mutual good would result from the combination. If, for a definition of a technical school, we lay down that it shall serve exclusively to teach its scholars a given amount of knowledge and skill for the carrying on of one special calling, then the military medical institutions are indeed, and ought to be, technical schools. But each such school, if allowed to exist in and for itself alone, will gradually loose all connexion with real science—that is, with research and truth—and must finally confine itself to the teaching of certain facts, with a view to some special examination. At a University, on the contrary, not one special subject or craft is taught, but rather the more general doctrine that there is only one large science, the aim of which is to subordinate matter to mind, and thus to ennoble mankind. Nor does such a doctrine forget that living science serves to the advantage of our existence—as Boekh says, not as its object, but rather as its consequence. Science in this sense, however, is never final, and thus follows the idea of research. Mere teaching is the conveying from teacher to scholar of settled doctrine, which is quite distinct from research. Thus the university stands apart from the technical school, and teaches the way to independent thought and original research by a common association of the teachers and of the taught."

After glancing at the necessity for constant improvement, he refers to the almost universal feeling of the actual insufficiency of any present system of teaching. But he regards this feeling as at once the cause and result of improvement. "Dissatisfaction with that which is accomplished is the only spur towards a continued progress. . . . Regarding the good as mere routine, and only paying attention to that which is faulty, can alone guard us from stagnation and continually urge us on to better things." In this spirit, the author goes on to inquire whether our present system of medical teaching furnishes us with "that sum total of attainments and that special scientific knowledge which, at the commencement of his professional life, the young practitioner ought to possess." He fears that we cannot answer that question with a satisfactory Yes! For if the ever-increasing sum of new facts and the vast extent which medical science now includes, be taken into consideration, and if these be compared with what a man knows, as shown at his (final) examination, our author fears "that we, teachers, must acknowledge with regret that our teaching has not come up to the standard which was to be expected of it." "The subject," he says, "is worthy of earnest consideration, whether the clinical instruction which at present obtains in the German universities suffices, or whether it is not capable of changes with a view to a more substantial foundation, and one better suited to the practical and scientific life of a medical man."

Next follows a history of the origin and growth of clinical medicine. Of this we need only say that it was in the year 1578, at Padua, that the physicians of the Hospital of St. Francis first gave lectures at the bedside. This practice

gave rise to opposition on the part of the hospital authorities, and had to be discontinued. From that time the value and importance of this practical teaching has come to be more and more allowed, and to be more and more practised. Then the various systems of clinical instruction at present in use are briefly alluded to. Our want of space compels us to pass over this part of the address also.

Professor Gusserow agrees with Billroth that "the degree of scientific education and of the interest in science which the student acquires while at the university is the standard of the intellectual life and feeling by which he is influenced for the remainder of his life." Hence the desirability of an ample and far-reaching preliminary education, and of one which aims less at teaching a number of facts and isolated experiences, than at a method of scientific and independent research which alone can qualify a man to deal practically with his profession.

One of the directions in which we may improve is in a more thorough grounding in natural science, in physiology and anatomy, and in pathological anatomy, during the years that are set apart for these subjects. And, in order that these subjects may be more practically learnt, they should be more practically taught. Mere lectures—theory, in other words—will not suffice; on the contrary, the student must have a systematic course, in each subject, of practical demonstration. He ought to be made, during two or three years, to go through a regular series of manipulative experiments in physical and chemical methods of research, and be taught medicine by demonstration on patients at their bedside.

As regards what we now call "the specialities," our author thinks they ought not to be made any part of the usual curriculum, for it would require a longer period of study in order to master all the details of these often difficult subjects. Of course it is desirable to know something of special subjects—eye, ear, skin, syphilis,—but it is for the finished student to decide which (if any) of these subjects he would take up for himself. As regards the teaching of the special subjects, the methods should be the same as for the chief subjects—that is, practical lectures first, and then the opportunities for personal practice later on.

A Manual of the Operations of Surgery, for the Use of Senior Students, House-Surgeons, and Junior Practitioners. Illustrated. By JOSEPH BELL, F.R.C.S. Edin., Lecturer on Clinical Surgery, Surgeon to the Royal Infirmary, and late Demonstrator of Anatomy in the University of Edinburgh. Fourth Edition, revised and enlarged. Edinburgh: MacLachlan and Stewart. London: Simpkin, Marshall, and Co. 1879. Pp. 294.

STUDENTS preparing for their final examination will find this volume a very useful aid. The descriptions of the operations are clear and concise, and their accuracy is unimpeachable. They are, moreover, not so brief as to be without interest, but are enriched throughout with allusions to the methods of the older surgeons, Benjamin Bell, Syme, etc. In the chapter on Amputations, the author pauses to give a short historical sketch of the operation. Commencing with the time of Celsus and his successors, when hæmorrhage was the terror of surgeons, and the operation had to be performed with the utmost rapidity, and many devices used to avert its fatal consequences, he passes on to the second era, inaugurated by the introduction of the ligature by Ambrose Paré in 1560, and of the tourniquet by Morel and others about a hundred years later. These aids did away with the necessity for the extreme speed of operation, and the red-hot knife and other means which had been used for lessening and arresting hæmorrhage previously. Still, for humanity's sake, every surgeon desired to get through an operation as quickly as possible, until the last era, which began with the introduction of anæsthetics. "Now," says the author, "speed in amputation is no object, and the surgeon has full time to shape and carve his flaps into the curves most suited for accurate apposition, and suitable relation of the cicatrix to the bone." Further on, however, in speaking of amputations of the thigh generally, we notice a slight contradiction, for he says at page 94, "With the exception of those amputations performed through the lower third of the bone, the flap method is to be preferred, and the flaps should in almost every case be made by transfixion." This, we believe, is contrary to the teaching of the other Edinburgh surgeons,

which is, that excepting in amputation through the hip-joint the flaps should never be made by transfixion, but be carefully dissected back. The woodcuts are rough, but sufficiently correct to enable the description to be readily followed, and, as the author says, "not bad for the money." The fact that this work has reached its fourth edition is sufficient proof of its value and popularity.

The History of Drink: a Review, Social, Scientific, and Political. By JAMES SAMUELSON, of the Middle Temple, Barrister-at-Law. London: Trübner and Co. 1878. Pp. 288.

THE object of this work, which the author apparently wishes to make a secret of till the last chapter, seems to be to make the use of alcoholic drink utterly discreditable to all concerned in it, from the maker to the consumer. Turning to the last chapter, we find, at page 258—"Every phase and form of civilisation has at one time or another been debased by its association with intemperance, and has frequently ministered to man's self-indulgence. Music and the arts have not disdained to become the handmaids of debauchery. . . . Science has consented in a hundred ways to multiply man's opportunities for self-debasement. . . . On the other hand, we see already that the wave of intemperance has invariably reached its highest point not when nations have been most highly civilised, . . . but either before it was fairly educated or during the national decadence." He illustrates this conclusion by quoting from the history he has sketched. In China and in India intemperance was greatest when the inhabitants were in a semi-barbarous condition; but it waned before advancing civilisation, and at present sobriety is a characteristic of both these countries. In ancient Rome, on the other hand, it was greatest during the national decay, and, as he alleges, hastened the empire on to its ruin. Thus the author endeavours to accomplish his object by associating the use of alcoholic drinks everywhere with moral and physical depravity. Further on (page 260) he says—"The most potent check upon immorality, especially in modern times, has been enlightened public opinion, which is the expression of advancing civilisation; and it is upon the conduct of those who have moulded public opinion that the morality of every age has been largely dependent. . . . And although in our day public opinion is expressed rather than created by those who occupy high places, still the utterances of Ministers of State, and the open countenance and encouragement given by influential party-leaders to persons who profit by the intemperance of the ignorant and depraved, cannot fail to produce a very pernicious effect upon public sentiment, and to militate against the exercise of its due influence upon the national morals." Speaking of the method of temperance reformers, he says they have in all ages endeavoured to elevate public opinion. "That it is absolutely essential for them to have popular sentiment on their side has been conclusively shown in connexion with every phase of the question. It is futile for earnest men to lecture to drunkards amongst the lower classes, so long as the great mass of electors, guided by unscrupulous party-leaders, choose publicans to represent them in town councils, and promote them to the aldermanic or civic chair. Equally idle is it for clergymen to preach temperance sermons to decorous congregations, whilst those who are enriched by the results of drunkenness are permitted to hold a higher rank than the parishioner whose calling is innocuous, and even above him whose profession ministers to that health and comfort which are undermined and uprooted by the gin-palace." This is the crisis of his argument. He would have us believe that unless public opinion can be so educated as to see, in alcoholic drinks of every kind, an unclean thing, not to be touched with so much as the tip of the finger; and in the maker and retailer of them, social lepers, to be shunned and disqualified from holding any public office, the country must inevitably decay and break up like ancient Rome. But we fear, or rather we thankfully believe, that education of public opinion and public taste would lead to a very different result: it would teach people to discriminate good liquor and bad, and to prefer and choose the good, so that the bad having no demand would gradually cease to exist, and then the sin of intemperance would vastly diminish also. This is shown by the fact that in France and Spain, where pure wines are largely used by the working-classes, drunkenness is extremely rare.

Turning now to the first chapter, we observe that the

author has the good sense to discard some of the fallacious arguments put forth by teetotalers. Notably, by Dr. Richardson—namely, that children and the lower animals have an instinctive dislike for alcoholic liquors. This, of course, is contrary to fact, but if it were true it would have but little bearing on the question of the propriety of their use by adult human beings. Speaking of the savage races, the author is at some pains to defend the much-abused white man from the charge of first introducing intoxicating liquors to the notice of the savages, by showing that the further the savages are removed from civilisation the greater are their excesses both in their native drinks, which they have in abundance, and in the spirits which they import; whilst with those who live on the borders of civilisation and associate freely with the white man such excess is comparatively rare.

The historical sketch that follows contains many points of interest. After sketching the drinking habits of the prehistoric races (which he confesses are matters of speculation), the author passes on to consider in detail those of the three divisions of the human family—the Aryan, Semitic, and Turanian races—in the past and present. But he rides his favourite hobby hard all through the book, ever associating the use of alcoholic drinks with ignorance, savagery, and brutality, and showing that the consumption of them is always in inverse proportion to the degree of civilisation attained. But the fallacy of his argument is obvious, for civilisation only teaches us to choose good liquor instead of bad, and to use it for profit instead of solely for pleasure as the savages do.

The author occasionally describes some amusing customs connected with drinking habits of the ancients. In Egypt, it appears, boiled cabbage was considered to be an antidote to alcohol, and he quotes the following at page 75:—

"Wife, quick! some cabbage boil, of virtuous healing,
That I may rid me of this seedy feeling."

And also the following moral poem:—

"Last evening you were drinking deep,
So now your head aches; go to sleep;
Take some boiled cabbage when you wake,
And there's an end of your headache."

The Germans apparently made drinking the business of their life. At page 107 is given a drinking-song of the students:—

"Bibit hera, bibit herus,
Bibit miles, bibit clerus,
Bibit ille, bibit illa,
Bibit servus cum ancilla,
Bibit velox, bibit piger,
Bibit albus, bibit niger,
Bibit constans, bibit vagus,
Bibit rudis, bibit magus."

"Bibit pauper et ægrotus,
Bibit exul et ignotus
Bibit puer, bibit canus,
Bibit præsul et decanus,
Bibit soror, bibit frater,
Bibit anus, bibit mater,
Bibit iste, bibit ille,
Bibunt centum, bibunt mille."

"In short," says the author, "everybody, man, woman, and child, drank to their heart's content."

Altogether the book is well worth reading; but the teetotal arguments in it are utterly fallacious. And finally the author defeats his own purpose, for the Germans, whom he shows up as having been probably the greatest drunkards of all, are now a powerful and prosperous nation, and not by any means an abstemious people, or even sober according to his notion of sobriety. It is quite true that what he aptly terms "waves of intemperance" do pass over nations occasionally, but it is also true that they emerge but little if any the worse. We will only add, in conclusion, that it is only necessary to compare nations who drink, such as the English and Europeans generally, with abstemious peoples, such as the Arabs and other Mohammedans, in order to see that nations who do not drink may be in many respects worse than those who do.

GENERAL CORRESPONDENCE.

A QUERY REGARDING FEMALE ATTIRE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Will you permit me to occupy a few lines of your valuable journal to put a query respecting the present style of female attire in a hygienic point of view. It is, I believe, a little more than half a century since the *pantalon* was added to the articles previously constituting the costume of the sex—its use being at first limited to children. As that generation grew up, however, the comfort as well as the

seemliness of the new draperies caused them to be retained, and in the present day they are worn almost universally by women of every rank. Yet there is a minority, both lay and professional, who object to them, though upon what exact grounds I have never heard distinctly stated. Among these I may instance the late Countess of Mountcashel, who, in her excellent work on the health and management of children, says drawers or trousers should never be worn by girls, but she excuses herself from assigning any reason for her inhibition.

If any of your readers or correspondents can throw light upon this matter, or can name any reliable treatise where it is touched upon, they will confer a favour on

Yours, &c., MATERFAMILIAS.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 18:—

Torbitt, Charles, Oldbury, Worcestershire.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Munyard, Thomas G., Westminster Hospital.
Prentice, Zachariah, Guy's Hospital.

At the Preliminary Examination in Arts, on September 19 and 20, 1879, the following passed and received certificates of proficiency in General Education. In the First Class, in order of merit, viz.:—

1. H. Armstrong and L. Pickering; 3. J. H. Menzies; 4. A. W. Clark, S. Herbert, G. R. Hulbert, and Florence J. Tebb; 8. F. Bromhead, H. G. Haines, R. T. Westbrook, T. D. White, and W. S. R. Woodforde; 13. H. A. Desvaux, C. S. Robinson, and H. H. Tomkins.

In the Second Class, in alphabetical order, viz.:—

G. G. Adams, T. E. Adams, R. H. J. Allen, S. G. Allen, A. B. Avarne, W. G. Axford, G. L. Baker, R. H. Bates, C. E. Beau, W. H. Bell, C. N. Bensley, A. Blakiston, J. F. Boissiere, J. A. Bradbury, E. M. Brown, C. S. Brownings, L. W. Burton, H. D. Buss, A. K. A. Caesar, J. C. Cater, P. E. Cleaver, J. W. Cockerill, J. W. Cook, E. R. M. C. R. Cousins, J. J. G. Crang, Mary Crawley, T. W. Crook, J. G. D'Aquiar, J. W. Dawes, C. Dolman, J. O. Downes, J. B. Drew, F. D. L. Ensor, A. P. Feddon, H. Fitton, S. H. Fox, E. S. Fry, G. F. Gilbert, J. Good, O. B. Granville, H. W. Haydon, H. H. Hewitt, C. E. Humphryes, C. R. Huxley, A. E. Huxtable, F. J. Jaynes, Mary A. Kenealy, H. R. Kenwood, C. J. Kirkpatrick, W. E. Lowe, Mary McGeorge, J. H. McRice, J. T. R. Maddox, R. Mills, Margaret Morice, C. E. Morris, A. G. Momber, J. I. Parsons, A. M. Page, D. E. Phillips, T. Pitman, H. Potter, A. I. Richards, W. B. K. Richards, W. S. Richmond, L. Roberts, A. M. Ross, P. C. H. Ryan, F. O. Smith, Augusta Stolte, R. Swyer, W. E. Swyer, W. S. Tebb, A. H. Tenison, M. Thompson, J. Thorpe, A. F. Tidswell, Jane H. Walker, G. J. Walklett, D. H. R. Walwyn, H. E. Watts, and T. Young.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

TREVES, FREDERICK, F.R.C.S.—Assistant-Surgeon to the London Hospital.

NAVAL, MILITARY, &c., APPOINTMENTS.

ADMIRALTY.—The undermentioned Fleet-Surgeons have been placed on the Retired List, and have been allowed to assume the rank and title of Retired Deputy Inspectors-General:—Stephen Bowden, M.D.; Robert Creighton, M.R.C.S.

BIRTHS.

ANDERSON.—On September 18, at the Royal Military College, Sandhurst, the wife of Surgeon-Major John Anderson, M.R.C.S. Eng., of a daughter.

BONNYMAN.—On September 20, at 50, Warwick-gardens, Kensington, the wife of Surgeon-Major Bonnyman, M.D., of a daughter.

DAVIS.—On September 21, at Newbridge, Ireland, the wife of Surgeon-Major J. Norman Davis, M.D., of a daughter.

GASKELL.—On September 20, at Grantchester, near Cambridge, the wife of Walter H. Gaskell, M.D., of a daughter.

MURRAY.—On July 30, at Hong-Kong, the wife of Surgeon-Major J. Murray, M.R.C.S., of a son.

SMITH.—On September 16, at St. Moritz, Engadine, Switzerland, the wife of Clement Madely Smith, M.D., of a daughter.

WATTS.—On September 18, at Sandgate House, Sandgate, the wife of Surgeon-Major J. Watts, M.R.C.S. Eng., of a son.

MARRIAGES.

BAUNTON—STOPFORD.—On September 20, at Dublin, Thomas Lauder Brunton, M.D., F.R.S. Lond., to Louisa Jane, youngest daughter of the late Ven. Edward Adderley Stopford, LL.D., Archdeacon of Meath.

CREAM—ASPINALL.—On September 18, at Bebington, Clement Chevallier, son of R. Chevallier Cream, M.D., of Putney, to Alice Lake, second daughter of Clark Aspinall, J.P., the Coroner of Liverpool.

GOLDSBROUGH—LATHAM.—On September 16, at Peckham, Giles F. Goldsbrough, M.B., C.M., of Camberwell, to Francis Sarah, elder daughter of Richard C. Latham, of Peckham.

HORNE—SCOTT.—On September 20, at Byfleet, Surrey, Thomas Walters, second son of Frederick Horne, Esq., of Beulah Spa, Upper Norwood, to Annie Susan, youngest daughter of Benjamin Scott, Esq., F.R.A.S., of The Cedars, Byfleet.

LAYTON—TAYLOR.—On September 17, at Denmark-hill, Thomas Layton, solicitor, of Belsize-road, N.W., and Gresham House, London, to Mary Ann Ellen, eldest daughter of Charles Taylor, M.D., of Pine House, Camberwell.

NICHOLLS—HINGSTON.—On September 23, at Shirley, Frederick Nicholls, M.R.C.S., of Toronto Cottage, Croydon, to Elizabeth Parnell, eldest daughter of Charles Hingston, Esq., of The Pentlands, Park-hill, Croydon.

PHILPOT—FLETCHER.—On September 23, at Shirley, Charles William Philpot, M.D., of Croydon, to Florence Elizabeth, eldest daughter of J. Flitcroft Fletcher, Esq., Eastmore House, South Norwood.

PRANGLEY—EKIN.—On September 10, at Cambridge, Thomas Prangley, M.R.C.S., L.S.A., of Aylsham, Norfolk, to Elizabeth Mary Augusta, eldest daughter of the late Thomas Ekin, of Cambridge.

WEBB—HAYES.—On September 18, at South Stoneham, Hants, Surgeon-Major William Marshall Webb, L.R.C.S.I., A.M.D., to Eglantine Katherine, second daughter of the late Alexander Hayes, Esq., of Bitterne Grove, Hants.

DEATHS.

CHAVASSE, PYE HENRY, F.R.C.S., at Hagley Mont, Hagley-road, Edgbaston, Birmingham, on September 21, aged 70.

COPLAND, JAMES CHARLESWORTH, M.R.C.S., at Coniston Lodge, Ealing, on September 18, aged 48.

CREAM, GEORGE, M.R.C.S., at Wynaad, Madras, on August 18, aged 60.

JOBSON, HELEN, wife of Frederick Gourlay, M.D., at Weston-super-Mare, on September 23, aged 23.

Ogilviebey, JOHN FORBES, M.D., at Walmer, Kent, on September 21.

WICKHAM, EDWARD, M.R.C.S., at 72, Holloway-road, London, on September 20, aged 84.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BIRMINGHAM GENERAL HOSPITAL.—Candidates must be graduates in medicine of a University by examination, and Fellows or Members of the Royal College of Physicians in London; but twelve months from the date of election will be allowed for obtaining the F.R.C.P. or M.R.C.P. Applications, accompanied by diplomas or certificates of registration and original testimonials, to Wm. T. Grant, House-Governor, on or before September 29.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Bideford Union.—Mr. J. O'B. Curtin has resigned the Hartland District. Area 21,953; population 2862; salary £75 per annum.

Bury Union.—Mr. Frank Davison has resigned the First Tollington District. Area 6511; population 15,303; salary £50 per annum.

Fareham Union.—Mr. Wm. Hoare has resigned the Titchfield District. Area 17,512; population 4369; salary £100 per annum.

North Wiltshire Union.—Mr. F. O'Connor has resigned the Fourth District. Area 7126; population 1455; salary £50 per annum.

APPOINTMENTS.

Belford Union.—Charles C. Burman, L.R.C.P. Edin., L.R.C.S. Edin., to the East District.

Dorchester.—Edward J. Day, M.R.C.S., L.S.A., as Analyst for the Borough.

Downham Union.—Wm. L. King, M.R.C.S. Eng., L.R.C.P. Edin., to the Fourth District.

Festiniog Union.—Robert Parry, M.R.C.S. Eng., L.S.A. Lond., to the Llanfihangel y Traethan District.

Horncastle Union.—Alex. R. Paterson, M.D. and M.C. Aber., L.R.C.P. Edin., to the Revesby District.

Kendal Union.—Augustus Johnston, L.S.A., M.R.C.S. Eng., to the Ambleside District.

Wetherby Union.—Christopher John Byron Johnson, L.F.P. & S. Glasg., L.R.C.P. Edin., L.S.A. Lond., to the Kirkby Overblow District.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

A Member, Colchester.—There will be an examination for the Fellowship of the College of Surgeons about the end of November. Write to the Secretary.

L. J. F.—A well-known physician gives it as his opinion that the brain is not injured by intemperate drinking, as is generally supposed, for, he adds, "a man given to intemperance in that way cannot have any brains."

Oporto.—Herbert Mayo, in his "Philosophy of Living," page 73, says: "There is one criterion of fine and old port, which I never knew fail, although it may be an accident. The cork, when it has dried—that is to say, an hour after it has been drawn—should be covered on its under and part of its cylindrical surface with crystals of tartar."

Mr. Whichelo.—The annual dinner of old St. Bartholomew's men will take place as usual on Wednesday, the 1st prox., when Professor William Turner, F.R.S., of Edinburgh, will take the chair. Write to Dr. Church, the Honorary Secretary.

A Fellow.—We really cannot supply you with all the information you require, but find that of the 355 Fellows who voted at the election in 1865 no less than 105 resided beyond twenty miles from London, and the remaining 250 at or within that distance.

S. A. G., Derbyshire.—Official returns show that the number of patients in licensed houses on January 1 last (exclusive of paupers, inmates of idiot asylums, and insane soldiers) was 1432 in the metropolitan district, and 1455 in the provinces, or 2887 persons in all; but of thirty-three licensed houses in the metropolis, thirteen have thirty patients and upwards, while in the provinces, with twelve exceptions, the number of private patients does not in any one house exceed thirty.

Speculative Builders.—The necessity of vigilant inspection, especially in new suburban districts, of dwellings in course of erection, is shown by the various prosecutions lately instituted by the Tottenham and Edmonton Local Boards against builders for using defective materials. A builder was last week fined £5 and costs, in each of two cases, at Edmonton Petty Sessions, for using mortar in the buildings, which consisted of one-fourth of lime, the remainder being sand, earth, and ashes.

A New Industry in India.—Beer is now brewed in the Punjab and the North-Western Provinces. Good beer is brewed at Murree, Simla, and Kasauli, and its consumption, both by the troops and residents, is annually increasing. The Commissariat Department itself purchases this Indian beer at the rate of a million gallons a year. There are ten breweries now in work in India, and the importation of English-brewed beer and porter increased by 150,000 gallons this year, notwithstanding the local production.

Overcrowding in the Seventeenth Century.—A series of books (nine in number) are preserved in the Record Room of the Town Clerk of London, entitled the "Remembrancia," and from the biographical notes it is seen what was done to prevent overcrowding—indeed, to prevent any addition to the number of inhabitants. There is a petition, dated October, 1632, to the Lords of the Council, complaining of the multitude of newly erected tenements in Westminster, the Strand, Covent Garden, Holborn, St. Giles', Wapping, Ratchiff, Limehouse, Southwark, and other places, which had brought great numbers of people from other parts, especially of the poorer sort, and was a great cause of beggars and other loose persons swarming about the City, who were harbouring in these out-places. That by these multitudes of new erections the prices of victuals were greatly enhanced; and the greater part of the soil was conveyed by the sewers in and about the City, and so fell into the Thames, to the great annoyance of the inhabitants and pollution of the river. That if any pestilence or mortality should happen, the City was so compassed in and straitened with these new buildings that it might prove very dangerous to the inhabitants. They therefore prayed the Council to consider the great inconvenience of these new erections, and to be a means to the King that some restraint might be had.

Urban and Rural Sanitary Works.—The Leith Town Council have adopted an improvement scheme by which it is proposed to run new streets through nine acres, on which stand some of the most insanitary dwellings in the burgh.—At the Lancashire Annual Sessions, held last week, the Court approved of the plans and estimates for the erection of additional buildings capable of containing 800 patients at the Prestwich Asylum; and that to carry them into effect a sum not exceeding £95,000 be raised under the provisions of the Act of 1853.—Three blocks of buildings are in course of erection on St. Paul's Rectory-garden, Deptford, for the Improved Dwellings Company. There are in all 450 rooms, arranged as 155 separate tenements.—The Town Council of Glasgow have had a prolonged discussion on the advisability of providing separate drains for water-closets and polluted water. Ultimately the city surveyor was directed to report to the Council on the matter.—Lord Powis recently laid the foundation-stone of the Shropshire Eye, Ear, and Throat Hospital, at Murivance, Shrewsbury. The cost of the building is estimated at £6400.—The Town Council of Falkirk are about to expend £4000 on sewerage works.—The Scarborough Sanitary Committee of the Town Council have adopted a report to the Corporation which recommends that a register be kept showing the following particulars with reference to every dwelling-house erected and to be erected in the borough:—Number; date of inspection; situation of premises; owner; occupier; rooms—(a) living rooms, (b) bedrooms; inmates—(a) family, (b) lodgers; privy or water-closet, ashpit; nature of water-supply, drainage, ventilation, and general condition of premises; existence of any special source of actual or possible nuisance; remarks of medical officer; additional observations. The report was strongly opposed, on discussion, on the grounds of the expense and the impossibility of finding a competent official to issue such certificates; while others regarded certificates as quackery, suggesting distrust to visitors, and some deemed the plan altogether needless. On a division, twelve voted for the adoption of the report, and twelve against, whereupon the Mayor exercised his right to give the casting vote in favour of the suggested issue of certificates.

A Week's Return of Street Accidents in the Metropolis.—The following return, for the week ending Saturday last, shows the number of persons killed and run over in the City of London and metropolitan area, which have been reported to the Society for the Prevention of Street Accidents and Dangerous Driving:—Killed by vans, 1; carts, 2; omnibuses, 1;—total, 4. Run over by vans, 6; carts, 12; cabs, 13; omnibuses, 3; bicycles, 1; total, 35.

H. M., St. Thomas's Hospital.—The widow of Joseph Henry Green died a few days ago at an advanced age. The following, which appears on a tablet in Hadley Church, will give you all the information you desire:—Coat of arms: "Quid et quomodo."—"Sacred to the beloved and revered memory of Joseph Henry Green, F.R.S., D.C.L., President of the General Medical Council of the United Kingdom, and twice President of the Royal College of Surgeons of England, who for the last twenty-eight years of his life dwelt in this village and worshipped in this church. He was born in London, March 1, 1791, and died at the Mount, Hadley, December 13, 1863. His remains rest with those of others of his family in the cemetery at Highgate. 'The Lord ordereth a good man's going, and maketh his way acceptable to Himself.'"

How Fatalities occur in Lunatic Asylums.—The Commissioners in Lunacy, in their report for 1878-79, on the Burntwood Lunatic Asylum, Staffordshire, refer to a distinct violation of the Asylum rules, which, as it involved fatal consequences, may be usefully noticed. It was a case of suicide by a patient who cut his throat. The coroner's jury returned a verdict that no blame attached to the attendants in charge of the patient. With this opinion the Commissioners did not concur, "as the patient was enabled to obtain possession of a knife only through a direct violation of the Asylum rules," and they expressed their opinion to the Committee, the result being that the under attendant, who was held responsible for this, was permitted to resign. According to the rules, no patient should go into the attendant's room, or help to clear away. In this case a patient was so employed, and removed the knives to the lavatory. Here another patient seized one, cut his throat, and died. The Commissioners think "the precaution should have been adopted of supplying the attendants with knife-boxes having a lid and snap lock, to secure the knives from patients at all times."

HÆMOGLOBINURIA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Dr. Wilks's case of hæmoglobinuria with superficial gangrene, reported in the *Medical Times and Gazette* of August 23, and Professor Schwahn's observations on the production of hæmoglobinuria by glycerine, reported in the *Medical Times and Gazette* of September 20, are important contributions to our knowledge of a very obscure disease. The blood was examined in Dr. Wilks's case, but I do not see that the condition and behaviour of the red corpuscles was particularly noticed, although my own observation leads me to believe that imperfect constitution and want of vigour in the red corpuscles lie at the root of the malady. That the urine contains dissolved colouring matter and broken-down globules is evidence of this; and the coldness and stagnation of blood in the fingers and toes and ears seems to follow as a consequence of readily disintegrating blood within the veins. I have known a little finger so long and persistently blue and cold as to make one marvel that it escaped gangrene. Dr. Wilks's most interesting patient will, I hope, be kept under his eye, so that we may learn future details about him.

I am, &c.,

A VICTIM OF THIRTEEN YEARS' STANDING.

* * We have received from Professor Postgate, of Birmingham, a copy of the following letter to the President and Council of the Royal College of Surgeons of England:—

"Gentlemen,—The great habit of working for nothing in our profession has its disadvantages, and affects injuriously the workers. It sprang from the purest benevolence, and has been of the utmost service to the poorer classes of the community; but it has led to dead ingratitude, and lowered the profession in the estimation of the commercial classes, who would weigh the produce of a cultivated brain in coal-scales as they would minerals and metals. It has also led honourable members of our profession to forego their just dues and to rob themselves. It has engendered a refined delicacy with regard to the business of the profession, of which mean advantage has frequently been taken in the minor appointments of the profession. I confess that I was surprised when I heard the other day that this habit of working for nothing was in full force in the Council of the Royal College of Surgeons of England. Now, excuse me, gentlemen, if I say that the College is not a charitable institution, but the great surgical corporation of a rich country, and that it has an income amply sufficient to defray the expenses incurred in transacting its business. I am sure no Fellow or Member of the College would wish the members of the Council to be out of pocket while attending to the business of the College, at great loss and inconvenience to themselves. The expenses ought most certainly to be paid as a matter of course out of the College funds; and in addition to this, I think, fees should be paid to members attending the sittings of the Council. The expenses must be heavy on the country members of the Council, as their visits to London must be frequent; and I should be glad to hear that this part of the habit of working for nothing and paying the expenses has been abolished; and I trust that the enclosed resolution will be moved from the chair and carried at your next meeting.

"Resolution.—That the expenses of members of the Council incurred in attending its meetings and transacting the business of the College be defrayed out of the College funds."

"I have the honour to be, gentlemen,

"One of your constituent atoms,

"JOHN POSTGATE."

Longevity in Europe.—From data given in the *Berlin Statistische Monats-schrift*, showing the differences which exist in the several European

countries as to the duration of life, and especially as regards the proportion of the population which reaches an extreme old age, it appears that for its population Greece possesses the greatest number of very old people (ninety years and upwards), albeit it is one of those countries where, on the whole, old people (sixty years and upwards) are relatively few. France takes the lead with respect to old people generally, but it has the small proportion 0.04 of the very old. Germany and Spain show the smallest number (0.03 and 0.02) of the very old people. Austria-Hungary is something better. There are no statistical data of sufficient accuracy for the Russian Empire, but M. Leroy-Beaulieu is of opinion that the number of persons in Russia who are sixty years old and upwards is about forty-five in every thousand. Omitting Russia, Turkey, and some other small States, there are about 18,000,000 persons in Europe of the age of sixty and upwards. The number should probably be estimated at about 20,000,000 if those other countries were included.

COMMUNICATIONS have been received from—

Dr. CHEVERS, London; Dr. B. NICHOLSON, London; Mr. D. COLQUHOUN, London; Mr. A. LEAHY, London; Dr. CULLINGWORTH, Manchester; Dr. SPARKS, Crewkerne; Mr. J. CHATTO, London; Dr. DRUITT, London; Mr. T. M. STONE, London; THE REGISTRAR OF APOTHECARIES' HALL, London; etc.

BOOKS AND PAMPHLETS RECEIVED—

The Boy's Own Annual, edited by James Macaulay, M.A., M.D.—William Adams, F.R.C.S., Observations on Contraction of the Fingers, also on the Obliteration of Depressed Cicatrices—China Maritime Customs Medical Reports for the Half-Year ended March 31, 1879—J. Cossar-Ewart, M.D., F.R.C.S., Manual of Practical Anatomy—The American Practitioner, edited by David W. Yandell, M.D., and Theophilus Parvin, M.D., LL.D.—Philadelphia Board of Health Report for the Year 1876—The Board of Works Annual Report for the St. Giles' District—San Remo and the Western Riviera, edited by Arthur Hill Hassell, M.D.—A Sermon on the Sin of Torturing Animals, by the Rev. John Moffatt—Société Médicale des Hôpitaux de Paris, Asselin et Cie.—Ocular Therapeutics, edited by Dr. Litton Forbes—On Intermittent Broncho-Pneumonia, edited by H. Cripps Lawrence, L.R.C.P.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Révue Médicale Française et Etrangère—Louisville Medical News—Nature—Boston Medical and Surgical Journal—Gazette Hebdomadaire des Sciences Médicales de Montpellier—National Board of Health Bulletin—New Remedies—Anti-Vivisectionist—Gazette Médicale de Paris—The New York Times—Philadelphia Medical Times—New York Index Medicus—Toronto Sanitary Journal.

APPOINTMENTS FOR THE WEEK.

September 27. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

29. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

30. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

October 1. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

OBSTETRICAL SOCIETY, 8 p.m. Cases: "Cholera in the New-born," by Dr. Lucas. Papers: Mr. Albert Doran, "Deficient Development of the Uterus; Atresia of the Os Externum; Atrophy of the Ovaries."—Dr. Chambers, "Case of Congenital Inguino-Ovarian Hernia (double); Operation. Report by Sub-Committee on the specimens removed.

2. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

3. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 20, 1879.

BIRTHS.

Births of Boys, 1270; Girls, 1303; Total, 2573.
Average of 10 corresponding years 1869-78, 2250.7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	664	702	1366
Average of the ten years 1869-78	643.5	605.4	1248.9
Average corrected to increased population ... ..	...	...	1336
Deaths of people aged 80 and upwards ... ..	...	...	47

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small- pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West	561359	1	2	7	2	6	...	5	...	11
North	751729	...	5	14	5	4	...	7	...	11
Central	334369	...	2	3	1	6	...	2	...	12
East	639111	...	10	13	1	6	1	4	...	27
South	967692	...	8	23	7	14	1	1	...	31
Total	3254260	1	27	60	16	36	2	19	...	92

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	29.822 in.
Mean temperature ... ..	...	...	...	...	57.6°
Highest point of thermometer ... ..	...	...	...	...	69.0°
Lowest point of thermometer ... ..	...	...	...	...	46.1°
Mean dew-point temperature ... ..	...	...	...	...	54.3°
General direction of wind ... ..	...	...	...	...	N.E.
Whole amount of rain in the week ... ..	...	...	...	...	0.29 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Sept. 20, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Sept. 20.	Deaths Registered during the week ending Sept. 20.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		In Inches.	In centimetres.
London	3620868	48.0	2573	1366	69.0	46.1	57.6	14.23	0.29	0.74
Brighton	105608	44.9	57	30	70.0	49.3	58.7	14.83	0.00	0.00
Portsmouth	131821	29.4	85	29	64.5	50.0	58.7	14.83	0.58	1.47
Norwich	85222	11.4	52	20	...	...	...	...	...	...
Plymouth	74293	53.3	49	23	67.0	44.0	56.7	13.72	1.44	3.66
Bristol	209947	47.2	145	67	...	...	...	...	...	...
Wolverhampton	75100	22.1	60	22	64.4	43.2	53.6	12.01	0.06	0.15
Birmingham	388884	46.3	283	123	...	...	...	...	...	...
Leicester	125622	39.3	90	50	66.5	41.0	55.7	13.17	0.01	0.03
Nottingham	169396	17.0	132	61	67.4	38.9	55.5	13.06	0.51	1.30
Liverpool	538338	103.3	395	273	...	...	...	...	...	...
Manchester	361819	84.3	236	138	...	...	...	...	...	...
Salford	177849	34.4	154	77	...	...	...	...	...	...
Oldham	111318	23.9	64	41	...	...	...	...	...	...
Bradford	191046	28.5	129	59	64.8	44.8	54.1	12.28	0.14	0.36
Leeds	311860	14.5	215	117	66.0	45.0	53.9	12.17	0.15	0.38
Sheffield	297138	15.1	223	103	66.0	44.0	54.2	12.33	0.03	0.08
Hull	146347	40.3	112	48	66.0	46.0	55.0	12.78	0.04	0.10
Sunderland	114575	41.4	65	45	74.0	47.0	56.1	13.39	0.00	0.00
Newcastle-on-Tyne	146948	27.4	111	69	...	...	...	...	...	...
Edinburgh	226075	53.9	140	62	63.6	44.1	53.0	11.67	0.00	0.00
Glasgow	578158	95.8	368	185	62.3	46.3	55.0	12.78	0.04	0.10
Dublin	314666	31.3	225	147	62.0	41.5	52.4	11.33	0.02	0.05
Total of 23 Towns in United Kingdom	8502896	38.6	5961	3145	74.0	41.0	55.4	13.00	0.22	0.56

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.82 in. The lowest reading was 29.51 in. at the beginning of the week, and the highest 29.99 in. on Friday evening.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ABSTRACT OF

INTRODUCTORY ADDRESS

DELIVERED AT THE OPENING OF THE CHARING-CROSS
HOSPITAL MEDICAL SCHOOL.By F. HIRD, F.R.C.S. Eng.,
Surgeon to the Hospital.

THE session at the Charing-cross Hospital was opened by Mr. Hird, the Dean of the Medical School. After congratulating the students on the marked success which had been achieved by them during the past year at the several examining boards, he said that he could not permit the opportunity to pass without alluding specially to two old students—former resident surgical officers in the Hospital—Mr. Jolly and Mr. Conolly—whom he was happy to see among them again on their return from South Africa, after having rendered distinguished services in the war, and been honourably mentioned on several occasions in the despatches from Zulu. They have done honour to themselves and to their *Alma Mater*, and in the name of his colleagues and of the students he begged to offer them their warmest thanks for their patriotism, and to wish them a brilliant future in their profession. He then alluded to the new era in the history of the Hospital which will be commemorated at the opening of the session next year. The new school buildings will then be ready for occupation; and by the generous support of the governors and cordial co-operation of the Council with the medical staff they will be on an extensive scale and fitted with all modern appliances. In specially addressing those now entering the profession as students, Mr. Hird pointed out the necessity of comprehending what it is they propose to learn, its subject-matter and its objects, and to consider the most effectual means of obtaining their purpose. Education, whether general or technical, he considered the most important subject which can occupy the human mind: it is the basis of individual happiness, and of the rank and usefulness of man in society; it develops and cultivates those powers which distinguish man from the brute; it refutes the doctrine of evolution as applied to man; it stamps the character of an age, and constitutes the chief distinction among men and among the nations of the earth. He recommended, in accordance with the curricula of the corporate institutions, that the course of study should be pursued with method and order. Anatomy and chemistry, which derive little aid from other branches of medicine, but throw the greatest light on most of the other departments, should occupy the student's chief attention during the first session, as the simplest operation in surgery can neither be understood when seen, nor comprehended when described, without an acquaintance with the structure of the part. As a knowledge of the healthy structure of the frame is the basis of morbid anatomy and the key-stone of surgery, so is chemistry an essential requisite to the study of physiology and therapeutics. Chemistry is no less satisfactory to the mind from the certainty of its evidence, than gratifying by the beauty of its experiments. How different is the treatment of disease since we possessed a more accurate knowledge of the processes of digestion, assimilation, and excretion! Without a careful study of chemistry, physiology and medicine will obtain no light to guide them in the investigation of the laws of life and the removal of abnormal states of the organism. Physiology, or the science of life, investigates the functions of plants and animals; it examines the processes by which the living body possesses the power of assimilating foreign matter introduced into its living laboratory to its own substance. The origin and nature of those changes of structure to which every organ is liable belong to the department of pathological anatomy, which tends to substitute demonstration for conjecture in the theory of disease, and to lay the foundation for rational practice. This science not merely points out to us the seat of disease and its effects upon certain organs, but it develops many of the laws of diseased action, and explains, in the history of the symptoms, many circumstances previously involved in obscurity. Without it post-

mortem examinations would be little more than a waste of time. It, moreover, is of the highest value to clinical medicine, by enabling us to appreciate the importance of symptoms, to trace the progress of diseased action, and to enlighten us on the value of therapeutical agents, and consequently to practise our profession with success.

Therapeutics is that branch of the science of medicine which observes man in the state of disease, ascertains the laws to be followed in the employment of those methods of cure which have been, by reason, deduced from the principles of physiology and pathology, and sanctioned by well-trained experience. This knowledge of physiological therapeutics enables the scientific physician to determine the respective powers of nature and of art in promoting recovery from disease.

These studies, Mr. Hird said, should be considered as preparatory to clinical work in the wards, into which the student should bring an intelligent acquaintance with the fundamental principles which guide us in the scientific investigation of pathological processes. Work at the bedside teaches us to become correct observers; it quickens our perceptive faculties, and enables us to interpret the signs of disease, and readily to determine their causes, effects, and remedies. This power is not the work of genius or inspiration,—physicians are not prophets,—but the slow result of long and well-directed study. It is by work, personally and honestly done, in the wards, directed by the clinical teachers, whose duty it is to impress precept upon precept on those attending their clinique, that the student should qualify himself for the responsible duties of his profession: he should carefully observe the methods of investigation adopted, and follow strictly in the footsteps of the teacher in observing, testing, and recording facts, and marking the deductions drawn from them; his knowledge of disease should be learned from demonstration. It is the province of the medical man to discover the causes of the morbid processes which indicate disease; to foretell, almost with certainty, the course they will run; to arrest their progress, and to restore the sufferer to health.

The greatest revolution in surgical practice in modern times has been accomplished by the brilliant discovery of Professor Lister. By the antiseptic method of treatment operative surgery has been “disarmed of its greatest terrors,” blood-poisoning after operation becomes rare, and hundreds of lives been rescued from death. We owe this great boon to humanity to the application of the teachings of abstruse science to the prevention of disease. This is a noble triumph of man's reason.

In practical medicine also great advances have been made; and the impulse, which for the last half-century has so signally extended the boundaries of knowledge in all directions, still actuates the human mind.

The opinions now formed will, for the most part, be the opinions upon which, in after life, the student will be confidently and constantly acting; therefore it is that teachers feel they are engaged in a very serious undertaking. Doctrines and maxims, good or bad, flow from a public teacher as from a fountain; and his lessons may have become the indirect source of incalculable evil and suffering to others. But among all the responsibilities, both of teacher and learner, the medical profession is one with which we may be well satisfied. It has its own peculiar privileges and advantages; and, if rightly pursued, may prove a lasting source of mental and moral profit. Our daily vocation tends also, by the constant contemplation of pain and weakness, to awaken the best emotions of our nature and to promote the charities of social life. It is free from party turmoil and sectarian jealousy; pain and danger are the only passports to its good offices. It regards no political differences, and the poor no less than the rich are embraced in its ministrations. It offers its peculiar benefits and blessings to men of every religion, and to men of no religion at all. Cultivated in a proper spirit, this noble profession is full of dignity and usefulness; if followed up in the same spirit as our illustrious countryman Newton pursued in regard to the physical sciences, wherein he delighted to deduce from the contemplation of the mechanism of the heavenly bodies the power of Him who made them, and who alone sustains and directs their motions, we cannot but be impressed with the harmony which exists in all that relates to man's organisation, and the adaptation of all surrounding nature to his wants and necessities.

ABSTRACT OF

INTRODUCTORY LECTURE

DELIVERED AT THE OPENING OF ST. GEORGE'S HOSPITAL
MEDICAL SCHOOL.By W. B. DALBY, B.A., M.B. Cantab., F.R.C.S. Eng.,
Aural Surgeon to the Hospital.

MR. DALBY delivered the introductory address, the subject being the influence of the study of science upon the mind. After a few preliminary remarks, education (said the lecturer) in its widest sense embraces all those influences which, beginning with the first glimmering of reason, affect the development and growth of mind; and these processes continue until the functions of the brain decline or are suspended by death. Circumstances, the effects produced upon him by others' and his own acts, may be said in one sense or another to make the man what he is, and are the means of furnishing him with all the information and knowledge which he possesses. In all systems of education where the natural sciences are not included, whatever information the student gains is acquired from what he reads, or from what he is told, and the truth of facts so presented to him he must take either upon trust, or in so far as they can be demonstrated to his reason by logic or mathematics. In the study of natural science, on the other hand, he sees, he feels, he hears the same facts repeated again and again under the same conditions, and his informant is Nature, who never errs. The evidence of his own senses demonstrates what he learns. Facts thus acquired, or statements from others subjected to such tests, become real knowledge; whilst what is learned from books is merely information. In scientific investigation books should only be employed for the purpose of directing attention to what is to be looked for, and as a means of comparing the observations of others with our own. The mental training which encourages the habit of careful observation, of accumulating facts the reality and truth of which are tested by experiment, which sweeps away opinions based upon imperfect premises, which succeeds in leaving upon its pupil a profound regard for truth and makes him accurate in all his work, must be a valuable addition to any course of education, although not a complete substitute for any branches of knowledge, except it be philosophy and metaphysics. Philosophy has been aptly termed the initiator of science. Having civilised and ennobled the better part of man, having given him the yearning for truth, it remains for science to supply such intellectual wants. Science begins her reign by refusing to accept authority or tradition in lieu of absolute truth, and is always prepared to abandon accepted facts when they can at any time be found incapable of proof.

As scientific knowledge advances, so surely does superstition vanish. The teachers of superstition require of their pupils faith and credulity, whilst the teachers of science welcome incredulity and insist upon inquiry—the result in the one case being belief, in the other knowledge. The young man who has commenced the study of natural science soon learns from the geologist that the history of the world includes a series of epochs, each epoch extending over periods so countless that we have no language in which to express their vastness; that it has been the scene of long histories of races bearing little resemblance to our own. From the physiologist he learns how all forms of animal life can be traced back to its original—the primæval cell; that in the higher grades of organisation what form of life individuals shall assume will depend absolutely upon the conditions under which they are forced to exist. The propagation of each species being by inheritance, the struggle for life effects the higher development of species, and the pairing of individuals the countless varieties of each. Whilst some forms of animal life appear in constant progress, others remain the same so long as the conditions under which they live do not change. A similar progress may be observed in vegetation as it has existed from early periods up to the present. Side by side with the development of animal and vegetable life must be placed the development of mind. Beginning with the first

glimmering of consciousness in the lowest form of life in which it is conspicuous, a period elapses until the expiration of that in which we find an animal performing, in obedience to his previous experience, some act with a definite object: then the first ray of reason appears. Thus we find ourselves on the road which leads us gradually but surely to the development of the highest order of brain, whose habitat is man. Any attempt to examine beyond the points at which life begins and where it terminates would lead us outside the boundaries of science. The student will find that as the laws which regulate the development of body and mind are unchanging, so are those which determine their degeneration by age and by disease up to the time of their death. Every bodily and mental change having a definite cause, it will be his duty to discover it. He cannot fail to observe how indestructible is all matter, how undying even are our very deeds, in that it is impossible for anything to be done by one of us without a result for good or bad, twofold in its nature—in the one case upon those around us, in the other upon ourselves. If this is properly appreciated we shall be careful of the manner in which we spend the time we have to live, and anxious to do the most good we can whilst the opportunities are offered.

Such opportunities are present in a large degree to members of the medical profession; but it is possible for the student to pursue his education in two ways—either so as merely to obtain a diploma to practise his profession, or to gain the best results from his studies. In the one case he might become the modern counterpart of the apothecary of former days, whose first consideration takes the form of the question, What is a good medicine for this or that? and so he prescribes it; who, although constantly seeing patients, has never acquired the faculty in early life of accurately observing, and blunders on into old age in the vain attempt to cure disease.

The physician, on the other hand, who intelligently studies physiology, who recognises in pathology an eccentric physiology (so to speak), does not attempt to cure disease; he places his patient in the conditions most favourable to recovery, and is often the means of averting death and conducting him to health. He thus, having an intimate acquaintance with the morbid changes which produce the symptoms in his patient, has the power of successfully insisting upon the requisite conditions for treatment, and this often with little assistance from drugs.

As might be expected, those who have spent a portion of their lives in scientific pursuits cannot fail to have their minds influenced by their work. An absence of all prejudice, a readiness to confess their ignorance, a complete freedom from superstition, and a tolerance of all religious opinions, characterise the truly scientific man. Although belonging to no party, he exercises a silent and unobtrusive influence in State matters: for the solution of the many social problems which press upon us with increasing urgency is largely in the hands of scientific men, who are often in a great measure the directors, though not the exponents, of public opinion. However necessary any special branch of knowledge may be for a profession, the true value of all education exists not in the power which it gives of achieving what is commonly called success, but in the influence which it lends to any sort of work a man may do; by its secondary influence upon all with whom he may be brought in contact; lastly, and chiefly, by its effects upon his thoughts and happiness: for on such things more often than on circumstances depends the amount of satisfaction which can be extracted from life.

ABSTRACT OF

INTRODUCTORY ADDRESS

DELIVERED AT THE OPENING OF KING'S COLLEGE HOSPITAL
MEDICAL SCHOOL.By ALFRED B. DUFFIN, M.D., F.R.C.P.,
Professor of Pathology and Physician to King's College Hospital.

AFTER offering a cordial welcome to his hearers, the lecturer proceeded to develop his ideas as to the true meaning of education, which he contended rested chiefly on three sources—precept, practice, and association. Under the head of

precept he included lectures and colloquial instruction; under practice, class examinations and manipulations. He contrasted the different objects aimed at by class and State examinations respectively. Under the head of association he referred to the information that a student gains from his fellows, and to the value and persistence of early friendships.

A definition was then given of a liberal profession, as aiming both at the welfare of the community and at knowledge for its own sake. Dealing chiefly with the former aspect of the question, these aims were summed up under two heads—their bearing on the community at large, and on the individual. Medicine was regarded as included in the science of biology, and as dealing chiefly with those divisions comprehended under the heads of physiology, pathology, hygiene, and therapeutics. Life was assumed to be “organisation in action,” and the importance of the influence excited by causes acting from without in modifying both healthy and morbid phenomena was especially insisted upon. It was here that practical medicine saw its opportunity for useful interference. The solidarity existing between the different divisions of biology, and the way they mutually illustrated each other, was next developed. The lecturer then proceeded to define the term “experiment,” quoting Buckle as to the necessity of simplifying complications as the first essential of success. He then explained that the apparent backwardness of applied medicine was to be ascribed to its having to wait for the development of those preliminary portions of biology which constitute its foundations. These he passed rapidly in review, insisting particularly on the great increase in our knowledge respecting the causation of disease. As an illustration of this the recent additions to our knowledge of the pathology of pyæmia was referred to, and special reference made to Professor Lister and the antiseptic method.

The consequences of disobedience to physiological laws, and the limitations that a more exact pathology was placing on the scope of therapeutics, were also the subjects of comment. The purely expectant school was then criticised, and the actual position of medicine defined.

The question of the value of drugs was next raised, and the necessity for applying to therapeutics the same principles which obtained in the other natural sciences was strongly insisted on. An attempt was also made to define the limits within which theory might be justly considered applicable. The value of the importation of the “experimental method” into therapeutics was vindicated, and the objections to which it had given rise were severally dealt with. The actions of medicines were broadly classified with Sir R. Christison under two heads—therapeutic and physiological. The value of the information to be gained by observations on animals was discussed, first from the side of the apparent dissimilarity in the results sometimes obtained, and then from that of the positive additions that they have conferred on our knowledge. A list of results was submitted, and the value of “physiological antagonism” was especially dwelt upon. The use of anæsthetics was also referred to, and the idea of cruelty in our dealings with animals was warmly repudiated. Admitting our imperfections and the many desiderata still existing in our knowledge, the present position of medicine was described as one of boldness and confidence.

The lecturer then briefly alluded to some of the consequences of public apathy in matters medical, and to the functions of the Legislature. He concluded by drawing a fancy portrait of some of the fallacies under which many of the public labour respecting our functions. He described in turn the mixture of awe and suspicion with which the uneducated man regards his doctor; the ideas prevalent as to how medical discoveries are effected, and the mechanism by which quack remedies are “worked.” The “*malade imaginaire*” was also alluded to, and the erroneous views prevalent as to the nature of disease and the action of antidotes. A paragraph was devoted to the objection that we possess no all-including “system” of medicine, no set of cut-and-dried principles, and reference was made to the “system” of the nineteenth century—homœopathy. The “waverers” in medicine, who “try” doctors and systems, were also commented upon, as were also those who scoff at medicine altogether. In conclusion, the rapid increase of medical knowledge among a growing section of the public was hopefully adverted to.

ABSTRACT OF

INTRODUCTORY LECTURE

DELIVERED AT THE OPENING OF THE MIDDLESEX HOSPITAL MEDICAL SCHOOL.

By SIDNEY COUPLAND, M.D., M.R.C.P.,

Assistant-Physician to the Hospital.

AFTER having welcomed those who that day entered on the arduous but pleasant study of medicine, and having congratulated them upon their choice of a profession, the lecturer proceeded to point out the principles which should guide them in their studies. To many the career that was opening was wholly novel, and it differed from their previous scholastic training in that they would now be their own masters in the pursuit of knowledge. It should be their aim so to dispose of their time as to acquire the requisite amount of knowledge within the limited period of their study. The sense of bewilderment arising out of the novelty and multiplicity of subjects was met by the recollection that others had accomplished what they were about to do, and the spirit of emulation would incite them to do what others had done, and if possible to do it better. The prevalent idea that a first year's student need not work hard was based on false doctrine, and embodied pernicious advice. In reality, the first was the “test-year,” and not the last. For if no work were done then, it would not be easy to take to it later, when forced by necessity. A definite work had to be done within a definite time, and if not commenced forthwith and pursued steadily through, it would be crowded into a few months, and the system of “cramming” thereby fostered. If they lost sight of the consideration that the study of medicine was their main object, and let the days pass idly and vainly, they had better seek for some more congenial and less exacting vocation than this. In speaking of the kind of work that lay before them, he firstly urged diligent attendance upon lectures, which it was a mistake to suppose had been wholly supplanted by text-books. Lectures were useful for explanatory purposes, for the solution of difficulties in the correct understanding of subjects, and for systematising reading. Attendance at the periodical class examinations was equally important, serving to test what had been learnt, and valuable as a training in the clear expression of ideas in writing.

Lectures and books did not exhaust their means of education. The most valuable was that afforded by so many branches of their study—of personally acquiring a knowledge of facts. Anatomy could only be learnt in the dissecting room, and, rightly pursued, its study was full of attraction and interest. The practical study of anatomy was but the foreshadowing of that ceaseless observation of phenomena which was in the future to be their pursuit. He therefore urged close attention to this subject, and repeated the advice given by Mr. Hensman two years ago as to the value of drawing in helping to fix facts in the memory. Anatomy, and to a less degree histology, served to train the mind to observe rigidly and closely. The importance of physiology was fully as great, and he thought the examining boards were to blame for allowing students to neglect it too much, for it claimed attention both from its importance and interest; and he particularly insisted on a mastering of its elementary questions before broaching its abstruser problems. Chemistry, like anatomy, was valuable as a mental training; but it was woven into every branch of our art, and could not be neglected by the clinical observer any more than by the medical jurist and the sanitarian. He had singled out these three subjects of systematic study from the many in the curriculum, because a knowledge of them underlay all future work, and chiefly because if the habit of study were formed in the first year, it would hold throughout. He warned his hearers against imagining that to them one subject was more important than another; they were to study all with equal zeal, and not to allow themselves to be drawn prematurely into specialism. Then they had the great advantage of being able to work in concert, and he believed it well for two to study together. The recluse was not to be imitated.

Close attention was to be paid to the daily tutorial questionings, which he advised them never to miss, owing to the great good they did in making a student know his own ignorance, and thus the better learn the extent of his powers.

In introducing the subject of hospital work he took occasion to remark that if it were only thoroughly understood that in providing the means of medical education a hospital performed as sacred a duty as in giving shelter and relief to the sick poor, such institutions would no longer need to ask for support. As to the student's work, he had first to acquire dexterity, which could not be commenced too early nor practised too often. Slowly and imperceptibly, hand and eye would be taught that which they would never lose. And many cases of injury and disease required little else than the educated eye and the educated hand for their diagnosis. Then, when later they passed to the investigation of more complex problems, they should especially study the physical signs of disease. Gradually coming to appreciate niceties in diagnosis, training their judgment in the balance of evidence, and learning how far it is possible to restore to healthy action by means of remedies, they would indeed learn to *observe*. They were also to learn to *record*; and he emphatically urged them to cultivate the habit of note-taking in all they learnt and saw, not simply for the purpose of laying up a store of facts, with which the memory could not be charged, but because that habit might afterwards be turned to good account in advancing the progress of medicine, and would thus be of great service to the profession at large. Briefly urging them to attend the special departments, and not to omit to study the effects of disease in the post-mortem room, he concluded by pointing out that the hospital affords opportunities for acquiring a knowledge of disease, which cannot recur to them again.

Passing to the subject of examinations and examining boards—most important to pupils and to teachers, for their influence was paramount—he commenced his remarks on this head by defending the University of London from the charge that its examinations were too stringent and unpractical. He pointed out that practical medicine was bound up with science; that questions were constantly arising in the prevention and treatment of disease, for which a knowledge of science was essential; and he was the most practical who could apply this knowledge. The examinations of the University of London for medical and surgical degrees were eminently practical. To be sure, time was necessary for their preparation; but, seeing that many entered now so early that they had to wait four or five years for the diploma of the College of Surgeons, the time was at their disposal. But to insure success he strongly advised that both the matriculation and preliminary scientific examinations be passed before the intending graduate entered as a medical student. Speaking of other metropolitan licensing bodies and deprecating the continued existence of many doors of entrance into the profession, he was surprised that more students did not seek the licence of the College of Physicians. He had heard reasons assigned for this—such as that its licence was thought less of than that of the Apothecaries' Society by vestry boards and the like, in whose gift lay the dispensation of many medical appointments; that its examinations were too seldom held, and that they were more difficult than those of the other body. The chief drawback, to his eyes—and this was true of both boards—was the postponement of examination in purely scientific subjects until a considerable time after the student had attended his courses in these subjects. He suggested that, pending the relegation of these subjects to compulsory preliminary study, the examinations in them should be held at the end of the first year's studentship. As to the College of Surgeons, he remarked upon its laudable desire to increase the efficiency of its examinations as practical tests, and upon the change which had been wrought in the spirit and conduct of its examinations within living memory. He believed that the proposed change in the primary examination would be a gain to the student, and would, moreover, impress him with the value of physiology. As to preparation for examinations, they must get rid of the idea that any special training was requisite over and above the diligent pursuit of their studies. Still it was well to draw up tables for themselves, containing points of special importance available for ready reference; and he again enforced on them the value of practice in the compo-

sition of papers, believing that many failed through lack of this. Then, when these trials were over, they were not to seek too soon to throw off the student-life. Now was the time to study special subjects more fully, to follow hospital practice at home or abroad, to hold resident appointments; and then, having completed their education, they would really be qualified for the cares and responsibilities of practice.

He urged the importance of recreation to all who, like them, would be engaged in sheer hard work; but it must be of the right and healthy sort. No one would gainsay them the occasional indulgence in cricket and football, and there were many pleasant country spots at hand where they could get fresh air and healthful exercise. It was also well daily to withdraw their minds for a short space from the engrossing subjects of study, to follow some other pursuit in harmony with their life. He felt bound to mention two errors into which students of all kinds were apt to fall—the one being neglect and ill-regulation of diet, and the other the habit of late working at night. He characterised the traditional midnight oil as a delusion. The ideal plan of study was steady persistence as opposed to spasmodic and vigorous efforts; and the knowledge gained by the steady plodder was more sound, deep, and enduring than that of the brilliant prize-winner, who seemed to lead without an effort.

The address concluded by an exhortation to earnestly devote themselves to their profession. They had many examples before them, and the speaker instanced that of Dr. Murchison, who for many years had laboured and taught in that hospital. In spite of drawbacks and difficulties, the pursuit of medicine was a worthy vocation, and although it brought with it many responsibilities and all that they entailed, it brought also much that compensated for them to those who followed it with their whole heart.

ABSTRACT OF

INTRODUCTORY ADDRESS

DELIVERED AT THE OPENING OF UNIVERSITY COLLEGE
MEDICAL SCHOOL.

By G. D. THANE, M.R.C.S. Eng.,
Professor of Anatomy at the College.

THE lecturer expressed his intention of devoting his address to a review of the work accomplished by the Medical Faculty of University College, the occasion being especially appropriate, as the institution had lately completed the first half-century of its existence.

When it was resolved to establish a university in London (the present University College), a prominent place was given to the necessity that existed for elevating the character of medical education, and there was offered, side by side with a university training in arts and law, a professional course of study in medicine far more complete than any to be obtained at the time in this country. The subject had been entirely neglected by the English universities. Professional education was not to be obtained there, and those who graduated at Oxford or Cambridge were compelled to pursue their studies elsewhere. In Ireland and Scotland medicine had always found a home at the universities, and Edinburgh in particular was the great medical school of the time. The requirements of the examining corporations, which have always regulated the character of medical education, were not of a very exhaustive, or, indeed, efficient, nature; the student served a long apprenticeship, and then acquired as much scientific and professional knowledge as he could from the lectures and hospitals in the one, or at most two, years of his attendance. In place of this imperfect training, the new University offered to its students a complete course, extending over four years, and including all the subjects which, at the present day, are considered essential parts of a medical education. The subjects were taught by professors, each distinguished in his own branch, and no professor was to teach more than one subject; the courses to be long, and the lectures to be supplemented by frequent examinations. The opening of the Faculty took place on October 1, 1828; Mr. (afterwards Sir) Charles Bell delivered the first lecture, and the classes were immediately well attended—in the first year by 165, in the second by 300 students.

As was to be expected, some preliminary difficulties arose; but these were surmounted, and this was soon raised to the first place among the metropolitan schools by the great superiority of the plan of instruction and the eminent ability of the teachers. Among the most distinguished of these have been Jones, Quain, Richard Quain, and Ellis, Professors of Anatomy; Charles Bell and Sharpey, of Physiology; Turner and Graham, of Chemistry; Lindley, of Botany; Grant, of Comparative Anatomy and Zoology; Conolly and Elliotson, of Medicine; Samuel Cooper, of Surgery; and Anthony Todd Thomson, of Materia Medica.

The chair of Pathological Anatomy was the first in the United Kingdom, and was occupied by Sir Robert Carswell; while Practical Surgery and Practical Physiology were taught here for the first time in London. The want of a hospital was at first severely felt, and vigorous steps were soon taken to establish one that should be expressly devoted to clinical instruction. In 1834 this was opened, and since then it has been more than once enlarged, notably in the last two months, and clinics for the more special branches of the medical art have been added. Before the hospital was opened regular courses of clinical instruction and clinical lectures were practically unknown in London. Here it was that for the first time clinical professors of medicine and surgery were appointed with the special duty of training the students in the observation and study of disease. The renowned Robert Liston was the first Professor of Clinical Surgery.

Another weighty reform was introduced at the same time: the offices of dresser, clinical clerk, and house-surgeon were thrown open to the students, to be gained by merit and not by fees—it being the universal custom elsewhere to require the payment of large sums for these offices.

The public advantages which were anticipated from the establishment of this medical school have been realised. The character of medical education has been elevated, its range extended; preliminary general education is now insisted upon; the fundamental sciences receive due recognition, and their study, both theoretical and practical, is enforced, while clinical teaching has been made a reality. This has been in a very great degree the result of the example set by the University College, and the influence thus brought to bear upon other places. The four years' course, which is now required of every student, is in principle the course planned and recommended here in 1828; while the additions to and alterations that have been made from time to time in the curriculum have always been forestalled. Other schools have adopted the methods pursued here; in short, the system of medical education which is universal in London now is the system which was organised and carried into execution here for the first time on those liberal principles to which University College has been, is, and ever will be faithful.

ABSTRACT OF INTRODUCTORY ADDRESS

DELIVERED AT THE OPENING OF THE MEDICAL SCHOOL OF
QUEEN'S COLLEGE, BIRMINGHAM.

By JAMES SAWYER, M.D. Lond., M.R.C.P.,
Professor of Materia Medica and Therapeutics in the Queen's College;
Physician to the Queen's Hospital.

AFTER some introductory remarks, Dr. Sawyer proceeded to say that to train medical students to become medical practitioners, and to pass certain examinations which are the legal tests of their fitness to practise, are the functions of a medical school. The former function—the higher of the two, although you may not now so estimate it—can be measured by no easily defined standard; but it embraces many subtle and most powerful agencies—what may be called the “tone” and “surroundings” of the school, and the moral influence, example, and personal qualities of its teachers. But the way in which a medical school fulfils its second function, that of fitting students to pass the qualifying examinations, can be readily tested. The Royal College of Surgeons of England is the body from which most of the medical students of England obtain the right to practise as surgeons. The Council of that College has published

some interesting and important statistics of its examinations. If we examine the last published of these statistics, showing the absolute and relative numbers of students who have passed, or who have been rejected, from each medical school, for the primary and pass examinations for the diploma of member of the College, during the academical year 1878-79, we shall see that the teachers and pupils of the Birmingham School have abundant reason to be proud of their work. Taking the primary examination and comparing the results therein attained by our own school with those of the eleven schools of London, and also with those of the seven English provincial schools other than our own, I find that the highest metropolitan percentage of rejections is 48.5; the lowest, 18 per cent. The average of the rejections from the medical schools of London is 30.3 per cent. For the same examination the percentage of rejections from the Birmingham School is only 15.7—less than a third of the largest and worst metropolitan percentage, a very little more than half the average of the London schools, and 2.3 per cent. lower and better than the lowest and best percentage attained by any London school. For this examination, too, the worst English provincial percentage of rejections is 48.75; the average is 32.3 per cent.; the best is that of the Birmingham School—viz., 15.7 per cent.,—not half the average. An examination of the statistics of the pass examination is scarcely less satisfactory. The highest metropolitan percentage of rejections is 38.3; the lowest, 23 per cent. The average of the rejections from the schools of London is 31.3 per cent. For the same examination the percentage of rejections from the Birmingham School is only 17.5 per cent.—13.8 per cent. below the metropolitan average, and 5.5 per cent. lower and better than the lowest and best percentage attained by a London school. For this examination the worst English provincial percentage of rejections is 53.3; the average is 35.6 per cent.; the best is that of the Birmingham School—namely, 17.5 per cent., again not half the average. Comment on these facts is unnecessary. They show, among other things, that excellence in these matters does not altogether depend, as some would seem to think, upon geographical conditions.

Now that I have given you some account of the position and progress of the Birmingham Medical School, I purpose to make a few brief suggestions to our students concerning the conduct and character of their studies. But before I pass on to the second part of my theme, I would notice, in passing, a question which for medical men and medical students is now a “burning question.” Let us hope we are now on the eve of important changes in the method and management of the examinations of the licensing bodies, notwithstanding the lamentable indifference of the Government, the selfish and short-sighted opposition of the Scotch universities and colleges, and the amazing stupidity of the Medical Council. If I mistake not, the general voice of the profession demands that the constitution of the Medical Council be re-cast, that that august body develop into something more than a debating society, that its functions be forthwith quickened so that it may at last, after a hibernation of twenty-one years, do something to guard the rights and regulate the responsibilities of medical practitioners, and that what are called the “portals” of the profession be consolidated—we want fewer doors and more windows. The absurd multiplication of licensing bodies in the United Kingdom, and in many of these the undue multiplication of licences; the great differences which have existed in the length and character of the curricula, and in the number and stringency of the examinations of the various corporations, combined with the fussy inactivity of the Medical Council, have long afflicted medical students and the profession generally, no less than the outside public, with evils whose harm it would be as difficult to measure as to exaggerate. There is not now before you, unfortunately, a definite set of examinations which you cannot shirk, if you would, if you would enter our profession, and in preparation for which you must regulate and direct your various studies in due order as to extent, proportion, and succession; but you are bewildered by the choice of “portals,” which make unequal demands upon your time, your energies, and your pockets, determining in varying degrees your subsequent professional status, fit or unfit you for the highest or lowest professional offices, and some of them so accommodating that you may look forward to entering them if in the end you should fail to pass or fear to approach their more

exacting rivals. Can we wonder at the confused notions which possess the public as to what is connoted by a qualification to practise? At this moment, in the United Kingdom alone, without counting the newly fledged Victoria University, which I understand has not yet formulated the arrangements of its medical faculty, there are no less than nineteen corporations chartered to confer medical degrees and diplomas. And such is the activity of these bodies that, exclusive of certificates in obstetrics, sanitary science, and dental surgery, in London there are given eleven, in the provinces of England ten, in Scotland nineteen, and in Ireland thirteen medical qualifications—a grand total of fifty-three licences to practise, the possession of any one of which entitles its holder to registration and the exercise of the privileges of a medical practitioner! Surely we have borne these evils long enough. Surely it is incumbent upon every member of our profession to do his best to secure their removal. All honour to those who have so long worked amongst us, in spite of official discountenance and delay, to effect a reform which cannot now be distant. Let us hope we shall soon see the Medical Council reconstituted with fuller powers upon a broader and a juster basis, including representatives of our medical schools and of the profession generally, as well as of the corporations, framing rules for examinations, and enforcing punishment on those who practise without authority or unworthily, and the universities and colleges of the land—still preserving their powers for supplementary admission to the higher professional qualifications—united in a real conjoint scheme, providing a well-balanced minimum standard of examination for a licence to practise, uniform as to curricula, stringency, and fees in all divisions of the kingdom.

In your curriculum in this College I hope you will find abundant opportunity for gaining a complete knowledge of the subjects prescribed for your study by the licensing authorities. Each of these subjects must be studied and practised separately if you would gain a clear conception of it; but they reciprocally support each other; they are supplementary and ancillary to each other; their boundaries are interlaced. You must set yourselves to acquire a knowledge of them all, both in their general and practical developments, if you would fully understand the science and intelligently practise the art of healing. These subjects are anatomy, physiology, chemistry, botany, materia medica and therapeutics, midwifery, pathology, medical jurisprudence, surgery, and medicine. Each is a science, and each science has its cognate art. A science is systematised knowledge, an arrangement of the leading principles or general truths relating to a given subject; the art which depends upon and flows from this science consists of the rules of practice and the practice of the rules founded upon the principles of the science. A science has to do with knowing, an art with doing. You must learn each science in order to understand its correlative art; you must practise each art if you would illustrate and appreciate the principles of its science. We teach you to employ four methods of study, no one of which you can safely neglect: you are required to attend lectures in which the principles of each science are set forth, explained, and illustrated; you are required to read for yourselves systematic treatises on each subject; you will have tutorial expositions of your studies by our medical tutor and demonstrators; and you will be required to apply your hands to practical work in the dissecting-room, in the museums, in the fields, in the chemical and physiological laboratories, and in the dressing-rooms, wards, and mortuaries of our hospitals. I cannot now attempt to urge upon you either the positive or relative claims of each of the several medical sciences. But let me tell you, you must become good anatomists. Anatomy, unlike chemistry, physiology, and pathology, is now, excepting in its histological developments, a complete science. You must master it thoroughly; you can have no excuse for remaining ignorant of any detail of naked-eye human anatomy. If you would practise our profession in any of its branches with a tranquil conscience, you must know anatomy. Whatever you have to do for the relief of the sick and suffering you cannot do it best without anatomy. Anatomy is the common ground of the physician and the surgeon; it is the very corner-stone of the medical sciences. Here, too, you must equip yourselves with a serviceable knowledge of chemistry and physiology. It will be his own fault if any of you leave this College and be not a

sound anatomist, a sound physiologist, and a sound chemist. And here, too, guided by our distinguished professors of medicine, surgery, and midwifery, you must so learn the principles of those sciences that you may appreciate and intelligently share in their application at our hospitals, and thus complete your academic training as sound physicians, surgeons, and obstetricians.

I would urge you, with all earnestness, to be diligent in your attendance upon hospital practice. You are required to attend this practice regularly from the very beginning of your course; from the very beginning I say, for the time before you is all too short for the work you have to do. During the first half of your curriculum, hospital practice, which then ought to occupy only a short part of each morning, must on no account be allowed to displace your collegiate studies in preparation for the earlier professional examinations of the licensing bodies. The greater part of the first two years of your studentship must be spent in preparation for these examinations. When you shall have passed these primary tests of your knowledge in anatomy, physiology, chemistry, materia medica and botany, when you shall have studied the marvellous structure of the human body and learned something of its healthy development and working, something of the chemistry of the vital processes, and something of the therapeutic preparations commonly used in medicine, you may allow prominence to your hospital work, avail yourselves fully of your great clinical opportunities, and take an active and intelligent part in the relief of pain and the care and cure of cases of injury and disease. Your training must first be mainly scientific, and then mainly practical. You must learn the principles of the medical sciences before you can appreciate and apply intelligently the rules of art which those principles supply. By your hospital work I do not mean attendance merely upon hospital practice, but your individual participation therein. If you do your duty, in that practice you must take some active part. You must all hold dresserships and clerkships. If you spend three years in your curriculum, at least your last year, and if your course of hospital attendance extend to four years, as it ought to do at least, at least your last two years should be spent continuously in one or other of these offices. You must not rely too much on clinical lectures and demonstrations. I am sometimes afraid we have rather too much of these good things nowadays. Nothing must divert you from your own particular work. No amount of reading, no lectures, however able, no demonstrations, however attractive, can teach you to recognise the crepitus of a broken bone, the cachexia of cancer, the crepitation of pneumonia, the fluctuation of an abscess, the rub of pleurisy, or the murmur of a damaged heart. If you would do justice to the ample opportunities which our hospitals afford you for obtaining a competent practical knowledge of your profession, these are among the things your own fingers must learn to feel, your own ears must learn to hear, your own eyes must learn to see, in your close personal observation at the bedside of the sick and suffering.

I hope a genuine and unalterable love of science, a humane and abiding enthusiasm, and an honest desire to earn your bread in the work of an honourable profession, are chief among the feelings which have guided the choice that brings you here to-day. Remember you have chosen a calling carrying with its practice responsibilities which are often more pressing, more personal, more direct, and more undivided, than attach to the pursuit of any other profession. If you would duly fit yourself now for these responsibilities, which must come upon you hereafter when you pass into practice, you will seriously and constantly strive to make the most of your educational opportunities for the acquirement of professional knowledge and professional skill. But howsoever extended your knowledge, howsoever great your skill, you cannot discharge these responsibilities aright unless you continue to train your hearts in courage and your minds to pure and lofty purpose. Bearing your responsibilities manfully, I would that you should pass from this school with a due sense of the dignity and worth of your calling; not with a contracted and contemptible class conceit, but with broad human sympathies, tempered with that just professional pride which is one of the strongest incentives to sacrifice for any work which tends to foster professional unity or to raise our calling in public usefulness or esteem. Such a professional pride is the surest safeguard of professional probity.

ORIGINAL COMMUNICATIONS.

FOUR CASES ILLUSTRATING THE CLINICAL HISTORY OF LOCOMOTOR ATAXY.

By JAMES RUSSELL, M.D., F.R.C.P. Lond.,
Senior Physician to the Birmingham General Hospital.

I CONTRIBUTE the four following cases for the purpose of recording certain variations which they present from the typical form of the disease as described by authors. Unfortunately, none of the cases are supported by pathological details; they must consequently be regarded as constituting merely clinical groups, rather than pathological entities. The same description, indeed, applies to a large proportion of the recorded cases of locomotor ataxy; it is not until a late period of the disease, as a general rule, that an opportunity is afforded of ascertaining the nature of the anatomical changes which have taken place in the tissue of the cord. Locomotor ataxy, indeed, by no means stands alone in this respect. The pathology of not a few other maladies greatly needs more accurate information respecting the initial stages before the successive changes in the organs affected can be clearly associated with the various symptoms presented during life. Perhaps there are few diseases of the nervous system with which are associated a larger number of interesting problems respecting certain of the functions belonging to that system than the disease which has occasioned these remarks, and hence there are few in which more precise knowledge respecting the early pathological changes, and especially respecting the parts in the transverse diameter of the cord which are successively implicated, would be more acceptable. No observations of clinical histories could be more carefully conducted than those by M. Duchenne on the symptoms of locomotor ataxy; but he is unable to speak in other than very general terms as to the connexion between the phenomena which he records and the morbid conditions on which they repose. Nor is M. Trousseau more precise. The idea of the co-ordinating function, as this function was formerly understood, being performed by some definite organ in the nervous centre has long been abandoned; but some very interesting questions respecting this function, and respecting the mode in which it is performed, might be afforded by locomotor ataxy, were the successive stages of the malady associated more definitely with pathological conditions on which they depend. The contrast between the incoördination of chorea and that of locomotor ataxy, for instance, has interesting questions as to the special part of the nervous centres, which, when diseased, give origin to this particular form of the disorder in the motor function. I need not refer more fully to the uncertainty which yet exists as to the particular method in which the locomotor disorder is produced in the disease of which I write; yet it is a striking circumstance that the ataxic period is usually separated from the other periods in the patient's history by a considerable interval, sometimes even by a series of years; and, as two of the following cases prove, this period may constitute the first stage of the malady, and remain distinct for a considerable length of time.

Probably no one of the present observations on the pathology of the nervous centres has been more fruitful in extending our knowledge of nervous disease than those relating to spinal localisation by M. Charcot and others. As is well known, up to a comparatively recent period a case of paraplegia was involved in almost hopeless uncertainties. (a) Nothing in the development of the theory of spinal localisation in disease can be more striking than the minuteness of limitation observed in the lesions attending certain forms of disease in the cord, at least as regards their essential seat; yet it may well be a question whether the two distinct symptoms in locomotor ataxy—those, viz., of lightning pains, and of motor inco-

ordination—separated as they often are by so long an interval of time, can both be referred to the external radicular bands, unless on the suggestion in a very able paper by Dr. Lockhart Clarke (*British Medical Journal*, September 25, 1869), which refers the want of co-ordinate action among the groups involved in every muscular act to irregular changes in the tonicity of the different muscles concerned; this imperfection resulting from the injury inflicted by the morbid changes on certain of the nerve-fibres belonging to the posterior roots of the nerves. Yet on this supposition the hypothesis which would refer the pains to an initial irritative process, and the incoördination to a later process of degeneration, appears to be opposed by the cases in which incoördination is the earliest symptom of the disease.

I need hardly notice other subjects of great physiological interest, which may be expected to obtain more or less of explanation from observing the early pathological changes in locomotor ataxy: such is especially the relation between sensation and muscular action; and curious hypotheses relating to the so-called muscular sense of Sir C. Bell, and the *conscience musculaire* as developed by M. Duchenne, and more lately discussed by Dr. Broadbent. And the observations lately made on reflex actions resulting from excitation applied to certain of the larger tendons receive further illustration from the disease of which the following cases are examples. Indeed, to conclude, hardly any disease with which we are familiar could afford a more practical illustration of the doctrine so ably advocated by Dr. Wilks in the last Harveian Oration, that students of medicine can perform a very important part as physiologists by observing and interpreting the phenomena of disease.

Case 1.—This case exhibits a first stage of considerable duration (five or six years), characterised by the peculiar pains, but not accompanied by any ocular phenomena. Duchenne, as is well known, rated highly the frequency with which some disturbance of co-ordination in the ocular muscles accompanied the first stage of locomotor ataxy; and further observed on the frequency with which the muscular affection was complicated with amblyopia (*De l'Electrisation Locale*, 630). Trousseau followed on the same side (*Nouveau Diction. de Médecine*, iii. 753). Other writers, however, have qualified this statement. Thus, several years ago, Dr. Hughlings-Jackson (*Lancet*, 1865, 247) quoted his own experience, supported by that of three other eminent British observers, in support of a modified opinion as to the comparative frequency of amaurosis; Dr. Lockhart Clarke takes a similar view (*British Medical Journal*, July 3, 1869); and Erb, in *Ziemssen's Cyclopædia* (xiii. 577), follows with a similar opinion in relation to the muscular affections, and (page 580) makes a similar affirmation on his own authority, and on that of others, as regards atrophy of the optic disc. I may also quote in support Duchenne's Case CLV. (page 781), and, still more to the purpose, Case CVII. (633), in which fifteen years of "horrible pains" preceded the commencement of amblyopia; nothing being said of ocular muscular phenomena.

Perhaps it may be a question whether the first stage in my patient had really so long a duration as I have assigned to it. The pains were indeed very mild for the first four years, but I was unable to discover any break of continuity in their occurrence, nor any difference in their character, except as respects their severity. Another variation, as connected with this stage, appears in pains affecting the arms at the same time with the lower extremities, though with very subordinate intensity.

The absence of anæsthesia is in accordance with the usual observation as respects this period of the disease; but a very remarkable exception was created by the insensibility of the muscles to the faradic current. One word as to the absence of tendon reflex. Erb, in the work already quoted (page 568), refers to the absence of reflex in the tendons in connexion with his suggestion that the ataxic symptoms may possibly be related to "disturbances of certain reflex tracts in the spinal cord," and (page 575) inquires whether reflex action in the tendons disappears before or after the occurrence of ataxy. In the *New York Medical Record*, April 12, this symptom is stated to be present before ataxy proper has been developed; and I see that Dr. Buzzard (*Medical Times and Gazette*, February 8, 1879), in discussing Dr. Gowers' paper on "The so-called Tendon Reflex Phenomena," stated that the absence of patellar tendon reflex was always associated, so far as he had seen, with the presence of

(a) It is but justice to a very acute observer to note that long before the theory of localisation in spinal disease had been formulated, Sir W. Gull, in a case of locomotor ataxy to be noticed below, commented on the tendency of spinal lesions to spread longitudinally in the cord, rather than transversely. He refers this tendency to probable homogeneity of structure, or to arrangement of bloodvessels. But he observes that such complete and symmetrical isolation of structure is very suggestive of an independent function (*Guy's Hospital Reports*, 1853, page 183).

lightning pains; and he spoke of the symptoms as being noted long before any incoördination was present. My case is in confirmation. I may just mention that Dr. Gowers, in his paper, observed that of eighteen cases in which knee reflex was absent on both sides, two only were good walkers. My patient is certainly not a *perfect* walker at the present time, but there is very little fault left.

It will be seen that the plan of treatment I adopted was founded on the possibility of a syphilitic cause. The patient has certainly mended considerably, but the case is hardly one which is likely to afford evidence, either negative or positive, on the point.

J. P., aged thirty-one, miner. His health has been perfectly good. He works at the pit-bank, and up to the last five years has been exposed to the wet whenever it rained; he used to change his jacket, but never his trousers. Better provision has since been made. When younger he drank a good deal. He had a chancre six or seven years ago, but no secondary symptoms. He has been married two years and a half; he has one healthy child; his wife has not miscarried. He absolutely denies sexual excess of all kinds. Before marriage he was subject to frequent nocturnal pollutions; some, too, have happened since he has been in the hospital.

For the last five or six years he has been subject to shooting pains in his arms and legs, occurring "as sudden darts." Interrogated closely and repeatedly about the pains, he constantly affirmed that they had been present for five or six years, and that they affected his arms as well as his legs. No description can be gained of these pains other than that they occurred occasionally, and that they shot down the arms and legs; he affirms that they are of the same kind with those which have attracted greater attention during the past year. He never thought much of these pains, but about a year before his admission the pains in the hips and lower extremities became much more severe; he used, unprompted, the word "lightning" as a term of comparison in describing them. They were sometimes in the knees, sometimes in the hips; they shot down the leg at one time, up the leg at another, and never occurred in both legs at the same time. Sometimes they caught him whilst walking; they have even confined him to bed for a day or two; and they have been at times entirely absent, even for a fortnight at a time. There has been some increase in the arm pains; but they hold a very subordinate place in his description, and he has mentioned them only once during his residence in hospital; on that occasion he had a paroxysm of some severity, the pain lying on the inside of the left biceps. As the pains in the legs have increased, numbness in the calves and knees has come on very gradually, but there have been no abnormal sensations in the soles of the feet; the legs, too, have felt weaker and more tremulous, and have got rapidly tired. In the hospital he complained greatly of a sense of fatigue and of weakness; nevertheless, he could walk four or five miles in the day. He had also pains in the flanks and in the lumbar region, and darting pains round the waist; but he had no tight feeling until some time after admission.

The only symptom of incoördination has been that his toes have been apt to catch the ground, and have sometimes thrown him down.

There is not the smallest evidence of any ocular disturbance; and I may at once state here that throughout his residence of three months the action of the ocular muscles, the acuity of vision, and the condition of the fundus oculi, have been found perfectly healthy after repeated examinations. I cite Priestley Smith's authority for the statement in confirmation of my own. The pupils too are quite normal.

For nearly twelve months he has been subject to constant morning vomiting, throwing up his food as soon as taken; the vomiting was unattended with pain, but involved much straining. It never happened later in the day; he took his dinner quite well. He was not drinking during this time; nor had the vomiting any of the usual form of "gastric crises." The epigastrium is healthy except some flatulent distension of the stomach.(b)

No change has occurred in the condition of the sexual

functions. There has been no constipation. Urination has been slightly but decidedly affected, in some difficulty in expulsion, and occasional "loosing" of urine in bed. His urine has presented a trace of albumen. The only notable feature in his family history is the occurrence of "fits" throughout the lifetime of one sister.

He is a healthy-looking man, of florid complexion, well nourished. On admission he walked rather stiffly, the heels thumping a little; his gait was more deranged than it should have been, when he looked at the ceiling. He stood well, but swayed and nearly fell when his eyes were closed. All these symptoms have nearly subsided during the last three months of residence. The arms are entirely free from all motor defect. The muscles generally are plump but flabby. Power of resisting passive movement was probably normal. As to sensitive phenomena, they have changed little since his admission; they have been tested repeatedly. At admission, with the compasses, he discriminated points at two inches apart in the left sole; three inches in the right; two inches in the left leg; three inches in the right. Throughout he has appreciated the slightest touch, and localised correctly, on the feet, legs, and abdomen. On the finger-tips he is generally correct to the compasses at one-twelfth of an inch; erring rather more frequently on the two ulnar fingers than on the others. Sensibility to temperature is also normal. Electro-sensibility has been remarkably low throughout; he has scarcely felt the strongest secondary current of Stöhrer's two-celled battery. Electro-contractility normal.

Sensibility to tickling on the soles may be a little lowered; it is probably normal. There is absolute extinction of tendon reflex, patella and heel; and there has been no ankle-clonus. Tested by weight at admission, he quite failed, in the lower extremities, with a difference of half a pound, and erred as often as he succeeded in discriminating a difference of one pound. He has somewhat improved in this respect, but is still often incorrect with a difference of half a pound. He has now been taking iodide of potassium for just three months, at first with small doses of bichloride. A continuous current has been passed down his spine, and from the lumbar region down his legs. There has been a very decided improvement in the motor symptoms, but he still complains greatly of weakness and fatigue in his legs. The pains, too, have been greatly relieved, though sometimes he has a sharp attack. I may say that, altogether, the patient has generally decidedly improved—how much from hospital advantages, how far from medicine, remains to be tested. I should add that he has only vomited once or twice during his residence, but makes increased complaint of the cord-like feeling round his waist.

(To be continued.)

THE PATELLAR TENDON REFLEX.(a)

By BYROM BRAMWELL, M.D.,

Late Physician and Pathologist to the Newcastle-on-Tyne Infirmary; late Joint Lecturer on Clinical Medicine and Pathology in the University of Durham College of Medicine, Newcastle-on-Tyne.

IN the year 1875, Professor Erb, of Heidelberg, and Professor Westphal, of Berlin, directed the attention of the profession to the fact that the upward movement of the foot, which follows a sharp blow upon the ligamentum patellæ, when the knee is semiflexed, and the leg at rest, is in certain pathological conditions absent, and in others exaggerated. These observations, together with some illustrative cases, were brought before the notice of this Society by Professor Grainger Stewart at the January meeting of last year, at which I had the good fortune to be present; and more recently Dr. Buzzard has published the results of his experience in the pages of the *Lancet*.(b)

Dr. Gowers, too, has, since this paper was written, made an able communication on this subject to the Royal Medical and Chirurgical Society of London.(c)

The phenomenon is one which, as Professor Grainger Stewart tells us, has been long known to schoolboys. It is readily produced by striking the ligamentum patellæ of a

(b) A similar form of morning vomiting occurred in a typical case related by Dr. Gull in his report on Paraplegia (*Guy's Hospital Reports*, 1858, page 179). There was, however, a peculiar condition of the colon; but Sir William believed the spinal lesion the main cause of the gastric disturbance. In this patient something like a rectal crisis occurred just before death.

(a) Read before the Northumberland and Durham Medical Society on November 14, 1878, and before the Medico-Chirurgical Society of Edinburgh on June 4, 1879.

(b) *Lancet*, July 27, 1878.

(c) *Lancet*, February 1, 1879, page 156.

healthy individual, who is seated on a table with the feet dangling, a sudden jerk forwards of the foot being the result.

That the movement is not mechanical, but that it is due to the contraction of the quadriceps extensor femoris, is proved by the following facts:—

1. The movement does not accompany the blow, but follows it by an appreciable interval.

2. The fibres of the muscle can be felt to contract just as the movement is about to be produced.

3. When the muscle is paralysed the phenomenon is absent, as in the following case.

Case 1.—Case of Traumatic Injury of the Spinal Cord—Paralysis of the Left Quadriceps Extensor Femoris—Absence of the Patellar Tendon Reflex on the Left Side.

A strong, healthy labourer, aged twenty-three, was working at the top of a house in Tynemouth, on August 8, 1877, when the scaffolding on which he was standing suddenly gave way, and he fell to the ground, a distance of at least fifty feet. His fall was fortunately broken by his striking first against some joists, and then against a staging which was raised some ten feet from the ground.

He was insensible for a quarter of an hour. When he came to himself he experienced pain in the small of the back, and found that the lower extremities were completely paralysed. During the first twenty-four hours there was retention of urine; and for several days the bowels were obstinately constipated. The back showed signs of bruising in the lumbar region, and he remembered striking it against the joists as he fell.

On September 6 he was admitted to the Newcastle-on-Tyne Infirmary under my care. His condition was then as follows:—There was slight tenderness over the lumbar region. The right side of the back at the level of the first lumbar vertebra seemed more prominent than the left. There was complete loss of motor power in the lower extremities; the muscles were flaccid and much wasted, the atrophy being chiefly marked in the muscles on the anterior surface of the left thigh and on the anterior surface of the right leg. Fibrillary twichings were frequently seen in the atrophied muscles. Sensibility was fairly normal in the right leg, considerably impaired in the left. No reflex action could be elicited on tickling the soles of the feet. The bladder and rectum were normal.

Under appropriate treatment the patient made a slow but gradual recovery. On October 30 he was able to sit up for the first time. In December he could manage to drag himself about the ward. In January he could walk fairly well with the help of two sticks. He was discharged on January 31. The left quadriceps extensor femoris was still completely paralysed. The patellar tendon reflex was present to a normal degree in the right leg, but was completely absent in the left.

In this case, then, in which there was a traumatic injury to the cord, followed by paralysis of the left quadriceps extensor femoris, the patellar tendon reflex was absent on the same side.

That the contraction of the muscle is *reflex* is proved by the following facts:—

1. Destruction of the lower portion of the spinal cord (*i.e.*, the centre through which the reflex travels) prevents the movement. This fact has been experimentally proved in the lower animals, (d) and is confirmed by cases in the human subject.

2. In many cases of locomotor ataxy the development and excitability (both to electrical and mechanical stimulants) of the quadriceps extensor femoris is quite normal, and yet the patellar tendon reflex cannot be produced.

3. Lesions of the spinal cord above the level of the lumbar region (*i.e.*, the centre for the patellar tendon reflex) which interrupt the reflex inhibitory fibres passing downwards from the brain—such lesions, for instance, as compression of the cord, transverse myelitis, sclerosis of the lateral columns,—are associated with a marked exaggeration of the phenomenon.

4. The free use of strychnine, which increases the reflex excitability of the spinal cord, causes also an increase in the extent of the movement.

(d) F. Schultze and P. Fuerbringer, *Centralblatt d. Med. Wiss.*, 1875, No. liv., as quoted by Erb in "Ziemssen's Cyclopædia," vol. xiii., page 50. Tschirjew, *Berlin. Klin. Wochenschrift*, April 29, 1878, as quoted by Buzzard in *Lancet*, *op. cit.*

5. In some cases in which the reflex functions of the spinal cord are increased, as in two I shall presently relate (Cases 9 and 10), a blow on the ligamentum patellæ of one side is followed by contraction of the muscle of the opposite leg (radiation of the reflex). The same fact has also been observed by Dr. Gowers.

6. The length of the interval (average in health and disease .10 or .11 seconds) which occurs between the tap and the muscular contraction has been proved by Dr. Gowers (e) to correspond with the time necessary for a reflex action. (Conduction .045 second, latent stimulation .01 second, reflex process in cord .05 second.)

The movement of the foot is therefore due to a *reflex* contraction of the quadriceps extensor cruris; and the phenomenon has been called the "*patellar tendon reflex*."

Now, in every reflex act a nervous arc—consisting of (1) a sensory or centripetal nerve, which receives the impression and transmits it from the periphery; (2) a centre which receives it; and (3) a motor, or centrifugal nerve, which transmits it from the centre to the muscle—is, of course, necessary.

The Centripetal Nerve.—A good deal of discussion has taken place as to the exact point of origin of the afferent impulse in the particular reflex act which we are considering. Nearly all observers are at one in thinking that the sensory filaments which receive the impression are not situated in the skin, and for the following reasons:—

1. The reflex cannot be produced by any slight irritation of the cuticle, such as tickling.

2. Freezing of the skin with ether spray does not prevent the occurrence of the phenomenon.

3. If a portion of skin lying over the tendon be pinched up and forcibly struck, the movement is not produced.

4. In some cases of locomotor ataxy the tendon reflex is destroyed, but the skin reflex remains.

I have carefully repeated these experiments, and have satisfied myself as to their accuracy. I agree, therefore, that, in the normal condition of things, the sensory filaments which receive the impression are not situated in the skin.

I am not quite satisfied, however, that in some pathological conditions the sensory filaments of the skin can be so absolutely excluded.

In one case, which I shall presently relate (see Case 9), a distinct contraction followed a blow upon a pinched-up portion of skin over the ligamentum patellæ, notwithstanding the fact that every care was taken to prevent any dragging of the tendon.

In another case (which I shall also give in detail) the movement was markedly lessened after freezing. Possibly this was owing to the frozen skin acting as a protector to the tendon. Against this view, however, is the fact that a tonic contraction of the muscle took place when the spray first touched the skin over the patella.

The fact that the movement is in all cases *most readily* and in many cases *only*, produced by a blow upon the centre of the patellar tendon below the knee, suggests the idea that the sensory filaments are either situated in the tendon itself or in the fibres of the muscle (quadriceps). According to the latter view, the blow upon the tendon acts by stretching the muscular fibres; and the fact that the movement is most readily produced by a blow upon the tendon is explained by the facility with which the fibres of the muscle can be stretched *all at once* by pulling the tendon. This view necessitates the tension of the muscular fibres through the tendon; but, as Erb points out, the phenomenon can in many cases be produced where no such tension is exercised.

This was remarkably well seen in a case which I lately had an opportunity of examining with my friend and late colleague Dr. Drummond.

Case 2.—Case of Rigid Paralysis in a Child—Tendon Reflex greatly exaggerated, and produced by Blow on Tibia—Ankle Clonus not produced by Simple Pressure on Sole.

The patient, a girl aged four, was admitted to the Children's Hospital, Newcastle-on-Tyne, under Dr. Drummond's care, suffering from rigid paralysis. A slight blow upon the free surface of the tibia, when the heel was supported so as to prevent any dragging on the fibres of the quadriceps, caused marked contraction of the muscle. In this case, too, I may remark, in passing, we had an opportunity of confirming Dr. Gowers' observation that the foot phenomenon is not

produced by simple pressure on the sole (balls of the toes) in children who have never walked. If, however, in this, as in Dr. Gowers' case, a slight tap was given on the front of the tibia while such pressure was being exercised, marked ankle clonus resulted.

Dr. Gowers, in the paper to which I have already referred, leaves the exact position of the afferent fibres doubtful, concluding, however, that the impulse must arise either in the tendon or the muscle. He has very kindly communicated to me the facts which seem to him to indicate the possibility of the origin of the reflex from tension of the fibres of the quadriceps. They are as follows:—

1. When the reflex is excessive, as in "lateral sclerosis," it can be obtained almost as readily by a blow on the top (upper edge) of the patella as by a blow on the ligament below the patella.

2. In such cases it can also be produced by a blow on the tendon above the patella.

3. Also by a blow on the substance of the rectus in the middle of the thigh. In this case the movement is not merely the result of the direct contraction of the fibres struck, but a contraction of the whole muscle similar in degree and in time (rough observation) to that which occurs when the patella tendon is struck.

"These facts," which I can from my own observation confirm, "prove," says Dr. Gowers, "that the afferent impulse may originate elsewhere than in the patella tendon. They also show that the afferent impulse may originate in the muscle. The phenomena of the rare knee clonus indicates the same fact, since in this sudden tension must originate each afferent impulse." He adds—"I do not think, however, that in man, when the patella tendon is struck, the afferent impulse is from the muscle, the sensation at the point struck is so peculiar and sometimes very painful. But I think it probable that the blow upon the tendon above the patella may act on the muscular fibres, and excite the afferent impression in this manner.

The conclusions which I have come to as regards the origin of the afferent impulse are:—

1. That in the normal condition of things it originates in the tendon.

2. That it can also originate in the muscle.

3. That in some cases, where the phenomenon is greatly exaggerated, it follows a blow upon the free surface of the tibia. In such cases it is supposed to arise from the periosteum.

4. That it is doubtful whether it may not in some pathological cases originate from the skin.

The Centre.—The centre which receives the impression is situated in the lumbar region of the spinal cord.

The Centrifugal Nerve.—The centrifugal or efferent nerve is the anterior crural (motor nerve to the quadriceps extensor femoris).

So much then for the character of the phenomenon and its mode of production. I now pass to the alterations which are found in disease.

Before, however, entering upon this part of the subject it is necessary to mention that this reflex, like the ordinary reflex from the skin of the sole, is occasionally absent even in healthy persons. Dr. Gowers examined 300 healthy individuals, and found it absent several times. Other observers have met with the same fact. I have not myself made any systematic observations on the point. In several of my hospital cases no contraction followed a blow with a light instrument, such as the end of a stethoscope; but in all of these a contraction (not a mere mechanical movement) followed a blow with a heavier object, such as a percussion hammer. In all cases, therefore, in which there is any doubt I use the heavier instrument. It is absolutely necessary, too, that the individual who is being experimented upon should be in ignorance of the exact moment when the blow is about to be struck; for this, like other reflex acts, can in many cases be to a great extent controlled by the inhibitory power of the will. Where there is any doubt as to the presence of the phenomenon, I am in the habit of bandaging the patient's eyes and placing him with both legs dangling in a pendulum-like manner over a high table. By this means it is possible to make quite certain that there is no muscular resistance, and to strike either tendon without the patient being aware that you are going to do so.

(To be continued.)

INDIAN NOTES.

By SURGEON-MAJOR F. R. HOGG, A.M.D.

TRAVELLING IN INDIA.

FROM Bombay to Allahabad the distance will be 845 miles, and 713 on to Lahore, making a total of 1558, thus divided: Egatpuri, 85; Deolalee, 28; Khundwa, 240; Sohagur, 141; Jubbulpore, 122; Allahabad, 229; Cawnpore, 120; Etawah, 87; Toondla, 57; Allyghur, 35; Ghazeeabad, 66; Meerut, 30; Mozuffurnuggur, 35; Saharanpore, 36; Umballa, 50; Loodiana, 71; Jullundur, 32; Umritzur, 52; Mean Meer, 29; Lahore, 3 miles. About five days are required for the journey when travelling by passenger trains, which are generally delayed at Allahabad. At large stations there are refreshment-rooms where breakfast, dinner, or supper can be obtained, besides lavatory conveniences, including baths. Considering the few trains on single lines, the stoppages might be longer in the cool season, to afford ample time for toilet arrangements, including cleaning of dusty carriages, and to avoid the bolting of tough, indigestible, greasy meats or monotonous viands. Irregular meals or snatches of food, the ancient "*quis separabit*" chicken, or the india-rubber steak, may upset bewildered new arrivals, perhaps burdened with querulous children and a helpless nurse. If proceeding with troops, the journey commenced at night will terminate at a rest-camp next morning, to remain all day in tents or barracks, and start again in the evening. In all camps, and occasionally at railway-stations, thieves may lurk about. Oil-lamps should be trimmed to burn brightly in the carriages, which need not be crowded; and the day glare is diminished by blue glass windows. Ladies in their saloons can partially undress and change clothes in the morning. Amongst comforts, or often essentials, may be mentioned soap, towels, hot-water bottle, spirit-lamp for cooking, tea, biscuits, essence of beef, good brandy, chlorodyne, soda-water, quinine, sal-volatile, tincture of opium, turpentine, and mustard. Thick rugs and tightly-stuffed pillows will somewhat lessen fatigue, and an abdominal flannel belt will be very useful at night. Drinking water, tea, or brandy-and-soda constantly is merely an idle, injurious habit in the cold season, when dysentery, diarrhoea, or gastric irritation may be provoked. If not blessed with sufficient self-denial to limit stimulants to a minimum quantity—say two ounces of brandy or whisky, taken only in the evening—it is better to turn total abstainer, and besides health advantages the economy will be enormous. An amazing amount of liver disease can be traced to the indulgence of a craving for beer as a habit started on first arrival and most difficult to abandon. As for tobacco, it is the ruin of thousands, and the man who does not smoke will often preserve his digestion, his spirits, his temper, and his nerve, besides escaping palpitation and terrible depression, possibly eventually culminating in insanity. The non-smoker is more susceptible to treatment when suffering with malarial fevers or dysentery. The moderate smoker, however, often finds infinite solace in his pipe when troubled with insomnia, neuralgia, or constipation, or when drenched or fatigued on the march. Neuralgic pains affecting face, eyes, ears, or neck, sometimes at night become very distressing; and the gouty should never travel without small supplies of bromide of potassium, colchicum, or laville. It is customary with some mothers to telegraph along the line for milk, but no dependence can be placed on the quality unless there are friends at command. Loose coupling of carriages, a day's rail exceeding a hundred miles at the commencement or the end of the cool season, the difficulty of securing suitable food, the brain and spinal cord fatigue, may endanger fragile children prone to fever, diarrhoea, or convulsions during dentition. Better to break the journey, for the luggage will arrive at proper destination gradually. In rest-camps medical attendance is provided, and at large stations every reasonable succour in distress can be obtained. When travelling down-country homewards, experienced mothers are occasionally inclined to run the dangerous risk of not allowing sufficient time for rest, and the sickly suffer all the more on board ship afterwards; or at Bombay, too ill to embark, may there be uncomfortably detained with all their packages in a bustling, expensive hotel. With some children the vibration of sound and the rushing through the warm air may lull them to sleep, and with water convenient it is easy to apply wet handkerchiefs

to heated heads. Insect-powder or the sprinkling of nim-leaves may in carriages be required. Delayed at Jubbulpore, strong excursionists might drive to the lovely rocks of white marble banking the Nerbudda River. At Toondla take the rail to see the marvellous tomb at Agra. At Ghazeeabad divert to Delhi, the Rome of Asia. Other places are horribly alike; and, excepting the celebrated ghâts near Bombay, and the blue hills about Jubbulpore and Umballa (often indistinct), there is nothing to see; and the Ganges, Jumna, Sutlej, or other rivers, are more remarkable for magnificent bridges than for any landscape beauty whilst flowing through the flat sandy plains. From Bombay to Lahore the best plan is to lie down in the first-class carriage all day as well as night, for more demands on energy may be required for steamer, palkee, dak-gharry, shigram, bullock-hackery, camel-cart, elephant, or any other conceivable conveyance to isolated, out-of-the-way localities. Gharrys (resembling four-wheel cabs, adapted for lying down) should not go more than forty miles in twenty-four hours if the cargo includes young children. Along broad level roads, shaded by sweetly scented flowering green trees, the journey is pleasant enough. But out of the beaten track or in native territory the jolting over pebbles, boulders, or rickety bridges of boats, and the discomfort of temporary detention midway in the mud or sand of a rapid flowing river until the natives apply their shoulders to the sinking chariot-wheels, must all be endured as unavoidable. It is advisable not to place valuables within reach of the light-fingered riding behind on a dark night. An empty paillasse, periodically re-stuffed with tightly packed straw, dry grass, or sugarcane, will make an excellent couch, and rugs with hooks or buttons to envelope the traveller, sack fashion, ought not to roll off during the crisp cold chill before sunrise. The waterproof sheet, the hurricane lantern with matches, should not be forgotten, nor musquito curtains, and old gloves to prevent the hands becoming filthy. Oil and candle lamps can be purchased in some bazaars. A bad lantern is easily smashed, perhaps on a dark stormy night, when the bewildered wanderer seeking a tent may stray into the jaws of a camel. Halting at rest-camps is arranged to diminish inconvenience, and if carriages be overcrowded the medical officer is at hand to protect weakly men, women, or children requiring extra space or special care. Pregnant women should not be conveyed on elephants if possible, and the liability of premature births in railway-trains or camel-carts must be remembered. The hackery, somewhat resembling a pedlar's van, crawls slowly along the hot dusty roads at the will of long-suffering bullocks, which naturally expect passengers to walk occasionally to stretch their limbs in the cool of the morning or the shade of the evening. Troops formerly were frequently taken up the Ganges in country boats under instructions to avoid anchoring at night near marshes or swamps, or under a high bank or dense bushes. Overcrowding, tedious delays, bad food, bad weather, endless objections, invited scurvy, malarial fevers, cholera, and dysentery, in sickly months or situations. Intense heat, chilly nights, disastrous storms, drenching rains, and the probability of drifting aground, had also to be chanced. Dooly conveyance by easy stages can be adapted to meet invalid requirements, especially on a good level road, if properly selected bearers are judiciously treated. Difficult is it to contrive a strong yet light uncomplicated pattern, portable in small compass by rail, for, although the bearers are not now powerful men, there remains a prejudice in favour of the cumbrous, antiquated dooly, in reality a capital bed upon which desperate cases can be conveyed to the hills eventually to recover. Neither elephants, camels, nor certain bearers can manage inclines, which must be traversed by mules, sure-footed ponies, or hill-carriers accustomed to rain, snowstorms, and slippery roads. Up to Simla the spiral, tortuous drive in a two-wheeled gig or tongha, to ascend beyond 6000 feet, is comfortably and expeditiously performed by swift ponies frequently relieved. Up to other sanatoria passengers by mail-cart must be prepared to undergo much shaking, bumping, or jolting, especially when showers, streams, and torrents damage the narrow roads along the limestone ledges sometimes overhanging perpendicular precipices.

Shelter.—Amongst several hotels at Bombay may be mentioned Pallinjee's at Byculla, and Watson's, conveniently situated and open to the sea breeze. Exclusive of wine the average initial daily charge would be about seven rupees. At Deolalee newly arrived troops jostled against those

returning home are accommodated in huts, the bachelor officers living at mess. At Jubbulpore near the tents is Jackson's family hotel. At Allahabad are two excellent and reasonable hotels near the railway. At Meerut there are three establishments. At Umballa try Lumley's, and Clarke's at Lahore. At Jullundur and Umritzur there are intermittent attempts, and at other places the dak bungalow often will be cheaper, cleaner, and healthier than the self-trumpeted native hotels. At Allahabad, Meerut, and Umballa officers may be elected honorary members of the comfortable, luxurious clubs, and thoroughly enjoy themselves after enduring miseries elsewhere. Indiscriminate hospitality being impossible in hard times, when new faces flit so frequently, the stranger, especially the mother of a family, should drive at once to the dak bungalow. Too often the fretty, irritable weariness of travel may tend temporarily to turn the most amiable people into extremely trying guests, ever grumbling at the country, the climate, the customs, and the servants of kindly disposed hosts, who, unable to remedy matters, have their own sorrows and troubles to contend with. After a time those privileged to experience the glorious exhilarating dry weather of the Punjab at one season, and the fresh cool pure bracing breezes of the snow-clad Himalayas at another, ought really to enjoy better health than in wet, damp, foggy, rheumatic, asthmatic old England.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

THE CHARING-CROSS HOSPITAL.

[For the notes of these cases we are indebted to Mr. Albert Leahy, M.R.C.S., Surgical Registrar.]

FRACTURE OF BASE OF SKULL—HÆMORRHAGE ON TO OUTER SURFACE OF DURA MATER—DEATH.

(Under the care of Mr. J. ASTLEY BLOXAM.)

The interesting point about this case is the existence of a fracture of base of the skull, with but few symptoms for the first eight days.

W. J., aged twenty-three years, a constable in the E Division, was admitted into the Robertson Ward on August 25, 1879, with the following history. Whilst on duty in the Strand, regulating the traffic, he was knocked down by a runaway hansom cab horse, and in the fall the back of his head came violently in contact with the kerb-stone.

On admission he was quite insensible. Feeble, flickering, fluttering pulse; pupils dilated. Skin covered with perspiration, and cold to the touch. Five hours after admission he vomited twice and recovered consciousness. There was a swelling at the back of his head, and symmetrical subconjunctival extravasation of blood. There was no hæmorrhage from ears, no inequality of pupils, and no facial or other paralysis.

August 26.—Seems much better; sits up in bed, and talks quite rationally, but complains of slight frontal headache. Requests to be allowed to get up, but has been ordered to remain in bed.

September 2.—Says that he feels all right, and that the pain in the head has gone. Insists upon getting up, and has been allowed to do so for a short time. He remained up for about three hours until the visit of the Surgeon, Mr. Bloxam, who, on examining him, found he had right-sided facial paralysis, and ordered him back to bed at once.

5th.—Has been delirious for several hours to-day. Temperature, morning 101.2°, evening 102°; pulse slow, hard, and full. The paralysis of face is more marked, but there is no loss of motion or sensation in the limbs. His head has been shaved, and he has been ordered an ice-bag, and R. Calomel. gr. ij., pulv. opii gr. ½; M. ft. pil., one to be taken every four hours.

8th.—The delirium has increased, and he is only conscious during short intervals. Temperature, morning 102°, evening 102.3°; pulse 100, and softer. Tongue very foul; teeth and lips covered with sordes. The left pupil is widely dilated; the right is normal and quite sensible to light.

10th.—His breathing is stertorous: he is almost comatose. The delirium has ceased, and both pupils are dilated and insensible to light. Pulse 128. Temperature, morning, 100°; respirations 25. About midday he became rapidly worse, and died in the afternoon.

Autopsy, eighteen hours after Death.—Body fairly well nourished. Extravasations of blood into the substance of scalp over the occipital bone about the size of a five-shilling piece. On removing the calvarium the dura mater was found to be strongly adherent to the anterior half of the skull-cap. At the posterior half of skull the dura mater was separated from the cranial bones by a large blood-clot, evidently of recent origin, and extending from the vertex to the foramen magnum. The left lateral sinus was ruptured about an inch from the torular Herophili. The brain was intensely congested, soft, and semi-diffuent in some places, and at the base there was some localised meningitis. There was some turbid fluid in the left lateral ventricle, but none in the right. No hæmorrhage into or laceration of the substance of the pons could be discovered. On removing the brain a fracture of the orbital plate of the frontal bone was found, starting on the left side and running across the crista galli of the ethmoid into the right side. There was a second fracture in the posterior fossa on the left side, implicating the mastoid portion of the temporal bone, and extending upwards and inwards across the left lateral sinus into the occipital bone.

ADENOMA OF THE NECK—REMOVAL—RECOVERY.

(Under the care of Mr. J. ASTLEY BLOXAM.)

G. F., a well-developed, healthy-looking boy, aged seven, was admitted into the Alexandra Ward, under the care of Mr. Bloxam, on July 22, 1879, with the following history:—Five months ago his mother first noticed a swelling about the size of a walnut on the right side of his neck just above the clavicle; the tumour was hard and painless, and increased rapidly in size, and at the end of three months' time reached the size of an orange. Two months after the appearance of this swelling another one appeared about the centre of the right side of the neck with exactly the same characters. He does not remember having received a blow of any sort upon the neck.

On examination a large swelling is seen occupying the right side of the neck, consisting of two distinct parts, the division between these becoming more marked when the right sterno-cleido-mastoideus muscle is rendered tense. The upper portion of the tumour is the larger, and is hard, nodulated, and projects as far forwards as the middle line of the neck. It is slightly movable, but does not move with the larynx during the act of deglutition, and there is communicated pulsation from the carotid vessels. The lower portion is smaller, more regular, feels soft in two or three places, lies in the posterior triangle, and extends a short distance beneath the clavicle; it is also more fixed than the upper portion.

July 31.—To-day, the boy having been anaesthetised, Mr. Bloxam proceeded to remove the growth. He made a straight incision about four inches in length from above downwards, and along the posterior border of the sterno-mastoid muscle. On dividing the skin and deep fascia (which was thinned and expanded over the growth) the character of the tumour was at once apparent. It was composed entirely of lymphatic tissue, consisting of numerous glands enlarged to about the size of cherries, bound together by dense fibrous tissue, and surrounded by a capsule of the same material. Many of these glands were softish and seemed to be the seat of colloid infiltration, and were surrounded by separate secondary capsules. He removed the upper portion of growth by tearing it away piecemeal, not deeming it safe to use the knife in such close proximity to the great bloodvessels of the neck. Next came the removal of the lower part, which, situated in the posterior triangle and lying partly beneath the clavicle, might have such connexion with the important structures in its immediate neighbourhood as to render its removal impossible or most dangerous to attempt. Mr. Bloxam, however, determined to try, and with this object introduced his fingers into the posterior triangle under the clavicle, and elevated the growth into the wound. Mr. Barwell held the carotid vessels well out of the way, and Mr. Bloxam, after two or three attempts, succeeded in tearing away and removing the whole of the growth. During the removal only one vessel (a ruptured artery) required ligature. The operation throughout was conducted antiseptically, a drainage-tube being intro-

duced, and the edges of the wound were brought together with silver-wire sutures.

August 1.—Patient has passed a comfortable night; does not complain of any pain and has not been sick. The wound was dressed, and looks very well. Temperature 102°; pulse 120.

3rd.—The wound was dressed again to-day. The upper part of incision has healed by adhesive inflammation, and the stitches have been removed. There has been some oozing of serum mixed with blood, but no pus. The cavity was syringed out with a solution of carbolic acid in water (one in forty). Temperature, morning 99°, evening 100°; pulse 100.

5th.—Upon dressing the wound to-day there was some bulging of the skin over the upper part of the cavity left by removal of the growth, and some tenderness and tension of the surrounding tissues. The discharge is now distinctly purulent, and the boy is not so well. Temperature, morning 100°, evening 102°; pulse 130. The antiseptics have been discontinued and a linseed-meal poultice substituted. The drainage-tube has been removed.

8th.—The wound looks much better; the discharge has diminished, and the tenderness and signs of tension have disappeared. Patient feels better, takes his food well, and seems livelier. Temperature, morning 99°, evening 99.4°.

17th.—The wound has nearly healed; there is but little discharge; the poultices have been discontinued, and water-dressing substituted, and the boy is allowed to get up.

From this date up to August 28, when he left the hospital to go to a convalescent home, the patient gradually improved, and of the wound nothing remained but a sinus at the lower end of the incision.

Remarks.—The interesting points about this case are the occurrence of so large a growth of lymphatic tissue in a child apparently in every other way healthy; the fact of it being situated in the "dangerous region" of the neck, and its complete removal being accomplished by the one operation. The boy has been seen lately: the wound has completely healed, and there is no appearance of a repetition of the growth.

ST. MARY'S HOSPITAL.

EPILEPTIC CONVULSIONS AND HÆMOPTYSIS— SYPHILITIC GUMMATA IN BRAIN AND LIVER.

(Under the care of Dr. CHEADLE.)

[For the notes of this and of the following case we are indebted to Mr. R. H. Lovell, Resident Medical Officer.]

John D., aged thirty-five years, a carpenter, was admitted July 19, 1879. He came to the hospital suffering with hæmoptysis, and on being questioned gave a strong family history of phthisis, three brothers having died of that disease. He stated that he himself had always been in good health. Two days before admission he had severe right frontal headache, and on the night before admission he was seized, while in bed, with a fit, during which he struggled violently and shouted loudly. After this attack he coughed up a large quantity of bright blood (he said, more than a pint), and continued to bring up blood at intervals until his application to the hospital.

On admission the following notes were taken of his condition:—"The patient is a dark-complexioned, strongly-built man, with a dull expression of countenance. He seems ill and answers questions in a confused manner. He is well nourished; the skin is moist; his temperature is 99° Fahr.; and on examination of the chest there is no evidence of phthisis or of heart disease. There are a few crepitations at both bases. He has a slight cough, and brings up a small quantity of frothy mucus tinged throughout with bright blood. His bowels are not constipated. He says that he has always been a temperate man. He has been placed on milk diet, and a mixture containing ergot, sulphuric acid, and sulphate of magnesia has been ordered."

July 21.—His manner is strange, and he seems excited this morning. He has passed a restless night, and has been noisy. Thirty grains of potassii bromidi failed to produce sleep. He is still spitting blood, but in smaller quantity.

22nd.—Last night he had three violent fits, following one another in quick succession. At the commencement of these fits the mouth was drawn to the left side, and the convulsions then extended to the whole body, the left side being chiefly affected. During the fits he passed his evacuations in bed. He is quieter this morning, and seems inclined to

be drowsy. The urine contains no albumen, some phosphates, its specific gravity is 1030. He has been ordered to take pot. brom. gr. xx. every four hours.

23rd.—Patient has passed a quiet night, and is more composed and sensible, though somewhat lethargic. He complains of severe frontal pain. His pulse is 88, full and bounding.

24th.—He has been quite unconscious since 6 p.m. yesterday, and has had frequent epileptiform seizures—several occurring in the course of an hour. Present state (10.48 a.m.): He is quite unconscious, and breathing heavily. Respirations 48; pulse 140, hard and full. His temperature last night reached 103°, having previously varied from 100.5° to normal; this morning it is 104°. There is divergent strabismus; pupils are inactive, equal, and moderately dilated. Patient did not recover consciousness, but became gradually more comatose, and died in the evening.

Post-mortem Notes.—On both legs there are deeply pigmented patches, some being superficial and others cicatricial, and generally symmetrical. There are no scars in the groin, nor other marks of syphilis on the surface of the body. On removing the calvarium the cerebral veins and sinuses are found to be full of dark fluid blood; there is no flattening of the convolutions. The under surface of the right frontal lobe is adherent to the dura mater, and that membrane is more firmly adherent than natural to the subjacent bone. The arteries at the base of the brain are apparently healthy. A syphilitic gumma, one inch long by three-quarters of an inch thick, occupies the marginal and internal convolutions of the right frontal lobe. The olfactory nerve on that side has been evidently destroyed by the disease. The gumma itself consists partly of semi-translucent, gelatinous, vascular exudation, and partly of yellow nodules of very firm consistence. The brain-substance is softened for some distance round the tumour, but the rest of the brain is perfectly healthy. The lungs are gorged with blood, and show numerous patches of recent capillary hæmorrhage; the parenchyma is quite healthy. The right cavities of the heart are full of blood, the left are almost empty. There are small patches of atheroma in the coronary arteries, but the valves and great vessels are normal. The liver weighs 3 lbs. 11 oz. In the posterior part of the right lobe there are three gummata, each about the size of a chesnut; they are nodular, very firm, and of distinctly yellow colour. The liver tissue in their vicinity is congested. There are two other gummata in the right lobe, two in the left, and one in the transverse fissure. They vary in size from the dimension of a marble to that of a chesnut, and they nearly all project somewhat on to the surface of the liver; at the points of projection there are patches of organised lymph. The general mass of the liver-substance is otherwise quite healthy. None of the other organs present any marked deviation from the normal.

ACUTE POISONING BY ERGOT, FOLLOWED BY TOLERANCE OF THE DRUG.

(Under the care of Dr. MEADOWS.)

Mrs. W., aged forty-eight years, a stout, healthy-looking woman, was admitted on October 21, 1878. She had been married twice, first at the age of seventeen, afterwards at the age of forty. She had two children by the first marriage, but none subsequently, and her last pregnancy was twenty years ago.

Eight years before admission here she was under the treatment of Dr. Meadows, at Soho Hospital, for fibroid tumour of the uterus. During that time she took ergot twice. The first time it affected her severely; but on the second administration it failed to act on the uterus at all. She was in Soho Hospital at that time for three months, and left cured. In March, 1878, she came to St. Mary's suffering from menorrhagia, and was examined by Dr. Meadows, who detected a growth in the uterus. She was subsequently admitted in October; and on the 23rd of that month, patient being under the influence of chloroform, a fibro-cystic polypus was removed from the anterior wall of the uterus.

On October 31, pulv. ergotæ 3ss. was ordered, with the view of bringing down any shreds of growth which might remain. The effects of this drug were very marked, as in ten minutes powerful uterine contractions were set up, and continued for two hours, when on vaginal examination a large tumour of the size of an orange was found presenting. In addition to the very strong uterine action there

was marked depression, and she complained of severe nausea and headache. The face was deeply flushed, and the eyelids were swollen, the right one especially. The left arm and hand were greatly increased in size—so much so, that a ring she wore on her finger was completely hidden. The pulse, usually rather weak, was scarcely perceptible at the wrist, the artery being quite soft. The rate of the heart's action was not much influenced, but was slightly hurried. The swelling of the arm and hand did not disappear until next day, when she was in all respects well. Dr. Meadows removed the tumour (which was attached to the fundus by a narrow pedicle) by means of the *écraseur*.

November 7.—Ergot was given again, as it was found that another tumour was present. As one dose did not act at first, it was repeated in six hours, and the symptoms already noted appeared again, but in an exaggerated form. The pain was so intense that she was ordered a hypodermic injection of one-fourth of a grain of morphia, with the result of easing pain and checking uterine action. The tumour presented, but as operation was not then convenient it was not removed, and gradually receded.

On November 24 ergot was again given; but three half-drachm doses administered at intervals of six hours produced no effect beyond the swelling of the face and arms, depression, and nausea. Patient was then unsuccessfully galvanised with the view of stimulating the uterus to contract and expel the growth.

In this case there is a history of ergot having been given at five different times—twice at Soho Hospital, and three times at St. Mary's. Each time it has given rise to the peculiar symptom of swelling of the face and left arm and hand. In three out of the five times given it has produced powerful uterine action; on the third occasion on which it was given, here, and on the second, at Soho, it had no action on the uterus at all. This in itself is peculiar, and seems to point to a tolerance of the drug being established as far as the uterine fibres were concerned; probably the fact that galvanism also failed to excite contractions would show that the excitability of the uterus was much impaired. It may be noted that this patient suffered from a weak and dilated heart, and that there was a mitral systolic murmur to be heard.

Another case of ergot poisoning with similar symptoms occurred once before at St. Mary's, but in that instance the action of the drug appeared to have been cumulative, as large doses had been given daily for about three weeks, at the end of which time swelling of the face and arms, with intense depression and vomiting of dark fluid, had occurred.

ACCIDENT WITH PAQUELIN'S THERMO-CAUTÈRE.—In the *Lyon Médical*, September 21, an account is given in which this instrument was employed for the purpose of cauterisation in a case of diseased knee-joint. Ether was used as an anæsthetic, and the surgeons present were quite aware that accidents had before occurred from this taking fire. They were therefore on their guard, opening the window of the apartment (about sixty cubic metres in size), and keeping the vessel containing the ether at a distance from the cautery. The anæsthetisation was tedious, so that 150 grammes had been employed, and a new bottle was just commenced with, when inflammation of the vapour in the room took place without any detonation, and the patient and doctors were enveloped in flame. Before this could be extinguished the patient was slightly and one of the doctors severely burned, and the bedclothes were set light to. The patient never awoke, and the operation was terminated notwithstanding the accident.

SUBCONJUNCTIVAL ENTOZOA.—Under this title, Dr. Fieuzal has published in the *Gazette Hebdomadaire*, September 12, a paper which he read at the recent congress at Montpellier, giving an account of two cases of subconjunctival hydatids that he has met with at the Clinic of the Hospice des Quinze-Vingts, of which he is senior physician. One of these occurred in the person of a girl sixteen years of age, the cyst containing the *tania echinococcus* having formed amidst the fibres of the rectus externus, producing a tumour as large as a chesnut. The other occurred in a girl three years of age, and consisted in a tumour the size of a nut, placed between the insertions of the rectus inferior and the rectus internus. On the extirpation of the tumour a vesicle the size of a cherry was removed intact, containing a *tania solium*.

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Medical Times and Gazette.

SATURDAY, OCTOBER 4, 1879.

THE INTRODUCTORIES.

THE Winter Session at our Medical Schools commenced on Wednesday last; and, as has now for some years been the case, at some of the schools the opening of the session was marked by the entertainment of friends and supporters, and of the students, old and new, at a *conversazione*; while the greater number of schools observed the old-fashioned custom of the introductory lecture. The only novelty noticeable this year being, that at the Charing-cross School the two modes were combined: an afternoon *conversazione* having been held, at which a short address was delivered to the students by the Dean of the School. The *conversazione* is doubtless a very pleasant, social way of bringing men together, and of introducing a student to his new place of study. But it is not a very easy thing to do thoroughly well, and if well managed it is a somewhat costly way of opening the session. It is therefore hardly within the power of the smaller schools to adopt it generally; and, moreover, by adopting it, a happy conjuncture for giving some general counsel to the students as to how to best use their opportunities of learning, and to best plan and order their lives and work during the next three or four years, is thrown away and lost. And the loss is not to be lightly thought of. For a good introductory lecture is an excellent and highly useful thing, and, as was observed by one of the lecturers last year, a short half-hour or hour is right well spent if it is so used as to make the first year's man believe that his teachers have his welfare at heart; if it can give hints that will guide and encourage him; if it, in fact, serves to make teachers and students not only acquainted with one another, but full of trust in one another. But neither is it, on the other hand, at all an easy thing to give a really good introductory address; and we can well imagine that but few men are very willing to undertake the work. The lecturer's audience is a very mixed one. Among his hearers and critics there are old as well as new men; senior as well as junior students;

and the counsel and warnings opportune and fitting for the latter, may to the former seem inopportune and tedious. And it must be confessed that medical students, even in these days, are not generally credited with being very patient or considerate listeners. The lecturer must carefully avoid "sermonising," and must neither magnify his office, nor dilate grandiloquently on the glory, dignity, and unsurpassing interest and usefulness of the profession of medicine, if he would be listened to; nor, if he would do good, must he dwell too much on, and paint in dark colours, the difficulties the student will have to overcome, and the vast extent of his studies. It is not a light undertaking to deliver an introductory lecture.

But, so far as we have had the opportunity of judging, the opening addresses delivered on Wednesday last are well up to the mark. They do not cover quite so wide a range of topics as usual; but they are sensible and encouraging, well ordered and wise. At Charing-cross Hospital, Mr. Hird pointed out to the entering students the necessity of comprehending what it is that they propose to learn, its subject-matter and its objects; and of considering the most effective means of doing this. He spoke of the value, significance, and importance of education; and he briefly described the aims, intentions, and values of the various studies included in the medical curriculum. He also touched upon the duties and responsibilities of the teacher as well as those of the student. Dr. Sidney Coupland, at Middlesex Hospital, entered more fully into the work the student has to do, and pointed out the principles that should guide him in his studies. He warned students against the idea that the first year's work may be taken easily; saying well, that the first year is in reality the "test-year," and not the last; for when no real work is done in the first year, it will not be easy to take it up later when forced to it by necessity. The most valuable means of education, he observed, is not to be found in lectures and books, but is that afforded by such studies as chemistry, anatomy, and physiology, which train men to personally acquire a knowledge of facts, to observe rigidly and closely. When speaking of examinations and examining boards, Dr. Coupland took occasion to defend the University of London from "the charge that its examinations are too stringent and unpractical," and asserted that practical medicine is bound up with science; that questions are constantly arising in the prevention and treatment of disease, for the solution of which a knowledge of science is essential; and that the most practical man is he who can apply this knowledge. No one will deny the truth of all this; but we are not prepared to agree to his statement that the examinations for the medical and surgical degrees of the University are eminently practical, though parts of them may be so; and we think that the charge against that examining body is that its requirements are so great and its regulations so stringent that but few can fulfil them; and that if a student does not at a precise and early period of his professional studies pass the matriculation examination, he must begin all over again at that point, should he at any later time wish to try for its degree. Dr. Coupland was quite right, however, in advising men to pass, if possible, both the matriculation and preliminary scientific examinations before entering as medical students. He gave some wise advice as to healthy recreation, good diet, and early hours at night, characterising the traditional midnight oil as a delusion. Mr. Dalby, who gave the address at St. George's Hospital, took for his subject the influence of the study of science upon the mind. According to him, apparently, no system of education can be worth very much that does not include the natural sciences. Other studies than the study of natural science may indeed do something for man; but what the student gains

from books, or from what he is told, is merely information, while the facts acquired in the study of the natural sciences, or statements learned from the workers in science, become real knowledge. Other kinds of education may "civilise and ennoble the better part of man and give him the yearning for truth, but it remains for science to supply such intellectual wants." Mr. Dalby points out in some detail the knowledge and mental training acquired by scientific studies; and no one will deny the high value of such training. But he does not say when the study of the natural sciences is to be begun, and therefore does not enter into the dispute as to the respective values for life-work of classical and of so-called technical education. We are in accord with him when he remarks that, as might be expected, men who have spent their lives in scientific pursuits cannot fail to have their minds influenced by their work. But when he goes on to say, "An absence of all prejudice, a readiness to confess ignorance, a complete freedom from superstition, and a tolerance of all religious opinions, characterise the truly scientific man," we must add that this may be true, but if so, the truly scientific man is a very rare being. Dr. Duffin, at King's College, gave an able and good address, developing his ideas of the true meaning of education, which he says relies on three sources—precept, practice, and association. Under these three heads he spoke of the value of lectures and collegial instruction; of class examinations and manipulations, contrasting the purposes of class and of State examinations; and of the information and benefits a student gains from his fellows. He pointed out that a "liberal profession" should strive both for the welfare of the community, and for knowledge for its own sake; defined the term "experiment"; vindicated the value of the introduction of the "experimental method" into therapeutics, and dealt with the objections raised against it. And he entertained his audience with descriptions of the mixture of awe and suspicion with which the uneducated man regards his doctor; of the notion prevalent as to how medical discoveries are effected; and of the machinery by which quack remedies are "worked." At Westminster Hospital, Dr. Dupré also took for his subject the same great topic of education, and dealt at length with the question of education in general, as well as with its relations to medical education in particular. One very noteworthy part of his address was a vigorous and skilful defence of a classical training, as compared with a so-called technical education; but we reserve his address for next week. At St. Thomas's Hospital, Dr. Cory dwelt chiefly on the value, in moving men to work rightly and profitably, of two great forces: inquisitiveness, or the love of ascertaining why things are as they are; and the spirit of truthfulness; and the greater portion of his address consists of descriptions of the characters and work of four men—Galileo, Harvey, Newton, and John Hunter—as examples of how these forces worked. He also entered into a vindication of vivisection (so-called), referring to the employment of it by Harvey, Hunter, Sir Charles Bell, Galvani, and others. But pressure on our columns prevents our giving his address this week. Mr. Thane, the lecturer at University College, made use of the opportunity to give a review of the work done by the Medical Faculty of University College, incited thereto by the fact that the institution had lately completed the first half-century of its existence. The address will be found very interesting, and instructive by all who are concerned with medical education, and, indeed, by all interested in the advancement of medical science, though it will naturally be most attractive to University College men. The school has reason to be proud of its success. During the fifty years nearly 5000 students have entered the medical classes. The largest number attending in any one year was 497, in 1837-38; and last year the number, though more

than a hundred below that maximum, was greater than in any year since 1839-40. Mr. Thane referred to the fact that for very many years the Hospital was mainly supported by the medical staff, who sacrificed for that purpose the fees earned by them in creating and keeping up the fame of the school. More than £86,000 in hard money had, he stated, been given in this way to the charity by its medical officers—a fact which, however honourable and creditable to them, is certainly not creditable to the public.

HOSPITAL GOVERNMENT.—No. III.

GOVERNMENT BY COMMITTEE.

OUR remarks on Hospital Government would be altogether incomplete did we not say something on the subject of Government by Committee. We have referred to one kind of personal government—that by a medical head, more or less autocratic. We had rather not say anything just now of another kind of personal government—by a layman in the shape of treasurer. Of this latter form we have had certain examples, at St. Bartholomew's and St. Thomas's especially, which have been the reverse of satisfactory; but we shall let that pass. Our object meanwhile is to say something of the plan which seems the most popular, as being adopted in most of the London hospitals, where a mixed committee of laymen and members of the staff unite together to constitute the managing body. Under this system the secretary generally has the principal share in conducting the business, but if he be a wise man he leaves matters medical strictly to the medical staff themselves or to the managing body. On this system, which might be described as the democratic in contradistinction to the autocratic, the supreme court of appeal is the whole body of governors, under whom it is usual to have a select and limited number of themselves to conduct all ordinary business, the larger group meeting only occasionally, once a year, in the formal annual meeting for the election of officers, or the like. It is in the smaller body that the medical element should have its due place, weight, and influence; for without such guidance it is hardly possible for a purely lay committee to avoid committing what the French call *bêtises*—acts of foolishness and stupidity, if you will,—which are easily avoided by technical skill and management. Thence, on the one hand, diverge committees entirely occupied with medical affairs, and others still with the purely financial and other business affairs of the hospital. Such is a sketch of the plan best adapted for carrying on the ordinary work of a hospital; and in a well-regulated institution the duties of the secretary should only amount to preparing the work to be done by these committees, in keeping books, getting and receiving money, and the like. No active share in the management should be allowed beyond this. For the more internal affairs of the hospital we have naturally two sets of office-bearers, all directly responsible, not to a single head, but to the various committees or the one central body. These are the medical and housekeeping departments. It is here that we begin to find a good deal of divergence in the practical conduct of different hospitals. In all we have, of course, the resident staff, consisting of medical officers, some qualified, some unqualified, but often with no distinct head among them. In certain hospitals, however—and this is the plan we would recommend,—there is a supreme medical head: a young, able, and energetic man, who has his spurs to win, who, in the absence of physicians and surgeons, has supreme control over all the other residents, who sees that their work is properly done, and otherwise exercises a wholesome control and supervision over all. Such an appointment as this is one of the most valuable a man can hold, and we could point to several of our most

distinguished physicians and surgeons as men who have held such posts. There is only one thing in connexion with this plan which is apt to set things wrong—that is, the length of time such an appointment may be held. This term is apt, except due care and precaution be exercised, to become sempiternal, to the disadvantage of the occupant and the loss or lack of energy in the conduct of the hospital. Moreover, when a man has held such a post too long, he is apt to think himself a better man and to know more about actual medical work than many of his superiors, and it will easily be perceived that such a state of things can hardly fail to be prejudicial to all concerned. But this need not be; the appointment should be made for a definite time, never exceeding five years, and should not be renewable. With this proviso, the plan seems the best we know, for it can be easily understood that, with a considerable number of young men resident in the hospital, some head is desirable; nor can this headship well be given, as it sometimes is, to a layman. He lacks that personal authority attaching to a higher education and position in the medical world, which so strongly impresses young men just entering on a medical life. Moreover, this want of personal authority is ill compensated by continual reference to the managing body, for the direct interference of this with the resident staff through the intervention of any layman is ill borne and often resented.

As to the more domestic concerns of the hospital, they are generally under the conduct of a matron, directly responsible to the managing committee, or, as is often the case nowadays, of a nursing sisterhood. With a mature experience of both systems, we are still tempted to prefer the former, provided you can get the right woman in the right place. But alas should it be otherwise! for a foolish or headstrong woman placed in such a position may do an infinity of harm. With a sisterhood there is less chance of things being so much misconducted as on the other, but at the same time there are a good many inconveniences attached to it. Like most other women, they are fond of having their own way, and their endeavours towards this end are often both troublesome and amusing. They like a pet clergyman as chaplain, and they generally hold to one of somewhat pronounced views; and, sad to say, such things as jealousy and quarrelling among themselves are not unknown. In this way a sister in whom you had learned to repose the utmost confidence, to be perfectly sure that every iota of your directions would be carried out, and whose reports you could fully trust, may suddenly disappear, and be seen no more by you. This is at all times annoying, and when you find on inquiry that it is due to some trifling squabble among the sisters, it becomes still more so. But there are few women who have the gift of an organising and wise controlling power, so that, take it all in all, there is less risk of decided failure with a sisterhood than with a single matron. Undoubtedly they are more expensive, and undoubtedly, too, the influence which a number of educated and refined women can exercise in the wards of a hospital is great and valuable; but there are always two sides to a question.

It will thus be seen that our predilections are, in the case of hospitals of the ordinary size, strongly on the side of government by committee, tempered as above suggested: there is less tendency to friction between the professional staff and such a body, than there is between man and man. Moreover, any action by such a body has not that personal character which is so apt to excite rancour and ill feeling; there is more sense of justice in a committee, and personal feeling can hardly prevail. It is, no doubt, useful to have a man to devote his whole time to the interests and welfare of a large hospital, but where the institution is not large the services of a lay secretary will suffice as well as those

of a house-governor or medical superintendent, especially if, as we have above indicated, the purely medical service of the hospital be looked after by a skilled and active resident medical officer.

THE WEEK.

TOPICS OF THE DAY.

THE American National Board of Health have made a report on disinfectants, with especial reference to the yellow fever epidemic. They recommend the use of sulphur for fumigation, and of sulphate of iron for flushing drains, while sulphate of zinc with common salt is suitable for disinfecting linen and other fabrics requiring to be dipped into the solution. Chlorine, carbolic acid, and the permanganates they condemn as liable to deceive by their smell or colour; and while strongly enforcing the need of fresh air and cleanliness, they declare that the very old-fashioned remedy of fumigating with sulphur is the only one suited to the disinfection of the house.

At the recent meeting of the City Commissioners of Sewers, held in the Guildhall, Dr. Sedgwick Saunders, the Medical Officer of Health, reported that the absence of any efficient organisation in the New River Company's service was a source of constant trouble to his department, and would assuredly lead to serious consequences among the inhabitants of the lower class of property in the City. Having mentioned instances of a deficient water-supply (in one place over a hundred girls were employed, without any water-supply for sanitary purposes), he proceeded to state that there really appeared to be no regard paid to the requirements of either decency or comfort. In some cases the supply was cut off from crowded houses upon unintelligible pretences; whilst in others the water was withheld from places in which all the fittings demanded by the most exacting regulations were in good working order. He asked for instructions to make the facts known to the authorities. Dr. Saunders further reported that during the week ended on the 20th ult. there had been nineteen deaths and twenty-nine births in the City; and that during the preceding fortnight seven tons and a half of meat had been condemned as unfit for food. The report was referred to the Sanitary Committee.

It is reported that a whole family has been poisoned at Banstead, Surrey, through drinking impure water from a tank or well. One of the children has already died, and the other members of the family are lying dangerously ill. Meanwhile the Epsom Rural Sanitary Authority has ordered the well to be immediately closed.

Experiments have recently been made at Woolwich by the War Department chemists with dynamite, in order to ascertain its suitability for military purposes, for which its supposed liability to accidental explosion was held to be a fatal objection. The trials seem to have established the fact that dynamite in a frozen state may occasionally withstand a heavy concussion, failing to detonate when dropped from a considerable height, and even when fired at with a bullet; but the effect was uncertain, especially when large quantities of dynamite were used, and the results obtained so far are neither conclusive nor complete.

Considerable mortality has occurred at the Female Orphans' Home, situate in Grouville parish, Jersey. Owing to the fouling of a well from which the supply of drinking-water is obtained, "gastric" fever broke out among the children, and of forty-five who were attacked six died. Measles also broke out in the Home, the disease being communicated by an infant sent by the workhouse committee. Fifty-one caught the infection, and of these eleven died.

Major-General Nicholson, the Lieutenant-Governor of the island, on being applied to, granted the use of the unoccupied barracks at Royal Harbour, to which the children suffering from the epidemic were removed.

The *Liverpool Courier* makes public the following record of reckless intemperance, communicated by a local member of the medical profession:—"I was called the other night to see a man in the agonies of cholera-cramp, apparently the result of drinking freely on the occasion of his niece's marriage; he had already been three weeks out of work through this indulgence. The father met with an accident about the same time which nearly cost him his life, and which, I fear, must also be traced to his own stupidity when muddled with drink. I found not less than a dozen persons, mostly young women, in a room with full glasses before them, a three-gallon jar of strong ale on the table, and several bottles of whisky. The latter had been replenished over and over again. The revels were kept up for five days, and I have been assured by the uncle of the bride that the drink alone cost them the sum of £20. Sundry young fellows from the North-end appear to have clubbed together to meet the cost—had been, in fact, 'saving up' for weeks previously, so as to have a regular spree with their sweethearts on the occasion of their friend's marriage. The father pawned his watch and several articles of furniture; one young fellow pawned his coat, hat, and watch; and the sum of £5 was advanced on the security of their names, by the publican, to find its way back into his till as fresh supplies of liquor were called for. The debauch lasted five days, and the whole party—twenty to thirty in number—slept together on the floor or anywhere of a small three-roomed cottage in one of the small streets of Toxteth-park. The revels ended, in true Hibernian fashion, by the whole party proceeding to the house of Father Nugent to sign the pledge." This narrative furnishes an apt illustration of mixing up "the bane and antidote" which would be amusing were not the subject so utterly revolting.

We give the following case, which has been extensively circulated, but are unable to vouch for its authenticity:—"A leading surgeon at St. Mary's Hospital has reported that a few days ago a lad was brought in with his brachial artery completely severed, he having fallen through a glass roof. A policeman on duty had extemporised a tourniquet so successfully that the bleeding was completely arrested; and when the temporary appliance was removed it recurred with such violence that the surgeon felt that he could say neither more nor less than that probably the skill and promptitude of the policeman had saved the lad's life. On inquiry it was found that the constable had been a pupil in one of the ambulance classes which have been in progress for more than a year among the Metropolitan Police, and in which the various members of the force have taken the warmest interest."

At Blackburn, last week, a drysalter was summoned at the instance of the Chemists and Druggists' Association for Great Britain, for selling poison. The Act provides that in vending poison the packet shall not only be labelled with the word "poison," but also with the names of the article and of the seller. The defendant had omitted the two last particulars, and, moreover, not being a chemist, he was unqualified to sell. This was taken as a test case, and as a warning to others throughout the kingdom. The result was the infliction of a fine of 20s. with costs. Subsequently the same Association summoned Messrs. Minton and Co. at Liverpool for a similar offence; witnesses proved that a packet containing a pennyworth of oxalic acid had been sold at the defendants' premises. It was explained that the

defendant's shopman had bought the poison on his own account for the accommodation of a few customers, and that the members of the firm were not aware that it was in stock. The magistrates imposed a mitigated penalty of 10s. and costs.

During the past few days an outbreak of small-pox has occurred in Wootton-street, Waterloo-road, twenty-one cases having been brought under the notice of the Medical Officer of Health for the district, two of which are reported as having terminated fatally. In consequence of an alarming outbreak of measles at Tamworth, it was decided on Saturday last to keep the workhouse children away from the Board schools there for a fortnight. Another severe outbreak of typhoid fever is reported to have occurred amongst the boys of the *Cornwall* training-ship at Purfleet; prompt measures have been taken to provide hospital accommodation ashore, and no doubt another searching investigation will be instituted with a view, if possible, of ascertaining the origin of the mischief.

The managers of the Orient Steamship Company recently announced their intention of handing over to certain charities the amount realised from the charge made to the public for the inspection of their new vessel the *Orient*, lying in the South West India Docks. During the four days the vessel was thrown open to visitors, 19,907 persons availed themselves of the opportunity of inspecting the ship, the sum realised being £872 15s., which is to be divided between the Merchant Seamen's Orphan Asylum, the Royal Alfred Aged Merchant Seamen's Institution, the East London Hospital for Children, the Poplar Hospital for Accidents, and the Dreadnought Seamen's Hospital.

Few Acts of Parliament have been so doggedly opposed by means of legal quibbles as the recent Adulteration of Food and Drugs Act. At Hanley, last week, a yeast dealer was charged before the magistrates with having sold an adulterated article. The sample analysed had been forwarded to the analyst at Hull by train, and it was contended in defence that this was not a legal delivery, the Act requiring that samples should be personally delivered to the analyst or sent by registered post. On this ground the magistrates actually dismissed the case!

It is announced that the amount already received on account of the recent Hospital Saturday collection has reached the sum of £2565, and there are still some small sums to receive before the distribution is proceeded with.

METROPOLITAN ASYLUM DISTRICT REPORTS.

THE second annual report of the Fulham Small-pox Hospital for the year 1878 shows that on January 1 in that year 15 cases remained under treatment, and that during the year 1109 patients were admitted, including 343 convalescents from Stockwell and Homerton. Of these, 970 were discharged, 134 died, and 20 remained on December 31 last. Of the 134 deaths, 122 occurred among acute cases of small-pox, 6 from other diseases, 4 among cases admitted through misadventure, 1 among the convalescents transferred from Homerton, and 1 among those from Stockwell Hospital. There were 121 deaths among 727 completed cases, giving a percentage of 16.64. Of these 569 were vaccinated, and 158 unvaccinated cases; of the former 48 died, giving a percentage mortality of 8.43; of the latter 73 died, or 46.20 per cent. Dr. Makuna, the Medical Superintendent, in some carefully prepared tables which accompany the report, furnishes a great many reliable statistics on vaccination; and he also shows that the proportion of unvaccinated cases was 42 out of 191 received from Fulham parish; 28 out of 90 from Wandsworth; 27 out of 116 from Chelsea; 19 out of

132 from Kensington; and 14 out of 76 from St. George's. This gentleman further points out that, notwithstanding frequent representations made to the different parish authorities, the system of conveying patients to the Fulham Hospital still remains defective; thus, the parish of Paddington continues to use the same ambulance for both small-pox and fever cases; the patients' friends frequently accompany them to the Hospital; and the ambulance drivers are not the servants of the Asylums Board, and consequently little or no control can be exercised over them. Dr. Makuna suggests that these drivers should be provided with a uniform, to be worn when on duty, and to be left in the ambulance shed when not on duty.—The report of the Medical Superintendent of the Hampstead Hospital, Dr. Samuel Bingham, embraces a period from November, 1876, to the end of 1878, during which time the total number of patients admitted was 3635. Mr. Bingham remarks, as the result of his observations, that small-pox does not tend to eliminate the weakly from a community, but removes the strong and healthy, the male sex being more susceptible than the female; thus, of the 3352 acute cases of small-pox admitted, 1775 were males, and only 1577 females, while the mortality returns showed—unvaccinated males 51·4, vaccinated males 10·3, unvaccinated females 41·5, vaccinated females 7·8. Neither does it appear that any occupation specially predisposes to this disease, though it is a little singular that no sewermen were admitted at Hampstead, and only two dustmen. Mr. Bingham also states, in reference to the utility of revaccination, that out of the total number of servants, nurses, men, etc. (in the aggregate more than 200), who have been engaged during the time since the Hampstead Hospital has been open, only one has taken small-pox, and he was the only one that had not been revaccinated. His exception is quoted as really a confirmatory example. He was a labourer in the grounds, and by some means avoided being revaccinated; during a pressure of work he was sent into the Hospital for help, and there caught small-pox, which, however, was modified by his primary vaccination, and he made a good recovery. It is of some interest also that, although proved a susceptible person, he worked in the grounds close to the wards for some time, and yet did not take small-pox until he came into more direct contact with it. Mr. Bingham's report on the working of the Hampstead Hospital is a very full one, and although, as he observes, necessarily dealing with matter previously well commented on, contains many facts relating to this special disease, the result of his extended observation of it.

THE HEALTH OF KENSINGTON PARISH.

THE report of Dr. T. Orme Dudfield, the Medical Officer of Health for the parish of Kensington, on the health of his district for the four weeks ending August 16 last, shows that, after making due allowance for increase of population, the births were 22 above, and the deaths so many as 55 below, the corrected decennial average for the corresponding weeks. The deaths were equivalent to an annual rate of 14·8 per 1000 persons living, the rate in the whole metropolis being 18·4 per 1000. Eighty of the deaths (179) were of children under five years of age, including 48 of infants less than one year old; 38 persons died at sixty years of age and upwards. The present return, Dr. Dudfield remarks, is, like the last, an exceptionally favourable one, the death-rate being nearly 5 per 1000 below the decennial average, and the deaths, as before stated, 55 below the corrected decennial average; the explanation being that the temperature has been low, the rainfall heavy, and infantile diarrhoea, until the fourth week, practically absent from our midst at a period when, in "normal years," it greatly augments the death-rate. No deaths occurred from small-pox, and only 7 cases of the dis-

ease in six houses were recorded, as against 10 in the previous month. Dr. Dudfield also gives a copy of the "Report of the Clerk to the Guardians with regard to the number of cases of Small-pox which occurred in the parish during the Epidemics of 1871-72 and 1877-78," which bears out the fact so frequently insisted on by him (Dr. Dudfield), that there is no ground for the statement that evil results have followed the establishment of the Fulham Small-pox Hospital on the borders of Kensington parish.

HEROIC TREATMENT OF TAPEWORM.

DR. CARL BETTELHEIM (Volkmann's *Sammlung Klinische Vorträge*, No. 166), after carefully summing up our present knowledge of the natural history of the various species of tapeworm, offers some remarks on a speedy method of removing tæniæ from the intestine, which are well worthy of attention. He asserts that by the plan he adopts he can expel the worm, head and all, in from three-quarters of an hour to less than four hours and a half. The "cure" consists first in an absolute preliminary fast of from eighteen to twenty-four hours' duration, during which the patient is allowed nothing but water, and has his bowels cleared out with three or four tablespoonful doses of castor oil. During this time the druggist is preparing the decoction of pomegranate bark—the anthelmintic which Dr. Bettelheim prefers, and which takes thirty hours to make properly. The following is the formula for it:—*R.* Granati, rad, corticis, 300·0-400·0 grammes; macera per 24 horas. Deinde coque c. aquâ dest. 500·0-600·0 ad remanentiam 200·0-300·0. Such a decoction should be a clear, dark, almost black-brown liquid. The secret of success in the second stage of the cure is to introduce this jorum into the patient's stomach, if possible, in a single dose. This Dr. Bettelheim effects by passing a flexible tube down his œsophagus, and pouring the fluid through it with a glass funnel. Patients generally submit to the tube when told that they must otherwise drink off the medicine at one draught. With some sensitive persons, however, even under its use it may be necessary to divide the dose into three or four portions, and to give them at short intervals of from a quarter of an hour to an hour. The greatest obstacle to this method is the vomiting so often caused by the pomegranate bark, but if the medicine can be kept down for half an hour or an hour the cure generally succeeds in spite of it. The patient should remain absolutely still after his dose, as the best chance of avoiding sickness. Drugs are almost useless to prevent it. Citric acid and ice are the most effectual remedies. If the sickness immediately follows the exhibition of the decoction, as it does sometimes, the extract of male fern must be tried at once, in moderate doses, every hour or half-hour. We may here add a word or two, drawn from Dr. Bettelheim's experience, as to the effect of these tapeworm "cures" on the patient, and as to the contra-indications to them. Vomiting has been already mentioned as a troublesome sequela, and severe diarrhoea, faintness, cramps in the calves and forearms, may be caused by the medicine; or merely a feeling of weariness, sleepiness, numbness, or oppression of the chest may be experienced. In all cases, however, the patients have completely recovered either by the evening of the same day, or at any rate by the next morning. A plan of treatment like the above is contra-indicated by the concomitant presence of ulcer of the stomach, or of any other severe gastric derangement not dependent on the tapeworm itself, and by severe illness, and all febrile affections. Wet-nurses, convalescents, and menstruating or pregnant women should not be subjected to a "cure" unless, as rarely happens, the worm is a great annoyance to them; nor should very old people undergo it, nor children who have been already treated once unsuccessfully and have proved

very refractory. No "cure" should ever be begun unless the medical attendant has had definite proof that tapeworm segments have been passed by his patient within a day or two. He should preside over the cure himself, and make absolutely certain of the presence of the worm's head in the dejections. This, by following Bettelheim's method, involves little loss of time. The worm often comes away with the first motion, about an hour and a half after injection of the decoction. If the bowels are not moved as soon as that, a dose of castor oil may be given. Should the first "cure" fail, it may be repeated in two or three days' time, but this is rarely necessary.

THE ROYAL SANITARY COMMISSION, DUBLIN.

ON Tuesday, the 30th ult., Mr. Robert Rawlinson, C.B., and Dr. Francis Xavier MacCabe, Inspector of the Local Government Board for Ireland, the Commissioners appointed by her Majesty to inquire into the sewerage and drainage of Dublin, commenced the inquiry in the City Hall. From the opening remarks of Mr. Rawlinson it will be seen that there is every hope that the scope of the inquiry will be as full and satisfactory as the most ardent advocate of sanitary reform in Dublin could desire. Mr. Rawlinson observed that the inquiry into the sanitary condition of Dublin involved very grave considerations. They were instructed to inquire into the main drainage and the purification of the Liffey, but inferentially he held that they were not debarred from taking into consideration other causes which might affect the public health of the city of Dublin; and that there were other causes of a very grave and serious character he was sure every person who had paid the slightest attention to the condition of Dublin must be perfectly aware. It had been his duty to make inquiry on many previous occasions into the sanitary condition of many places in England, and also to make himself acquainted with the sanitary condition of populations in various parts of the world. There were many theories as to the causes of disease in excess. Some attributed the excess to geological causes, some to meteorological causes, and so on. He had been obliged to come to the conclusion that the prime causes were not to be attributed to those conditions, but to some form of neglect in the construction and management of the houses in which the people dwelt. If they had people living under conditions where purity of the atmosphere was impossible, they must naturally look for excessive disease; and where those conditions existed it was the duty of the sanitarian to make such recommendations as would lead to their removal; and he hoped that the report of the Commissioners would contain practical recommendations, which, if followed out, might lead to the future benefit of the city of Dublin. But he would caution them that that inquiry, and the recommendations of the Commissioners, might be entirely vain if their spirit were not taken up earnestly by the citizens and carried into force.

DEATH OF DR. HENRY MAUNSELL.

THIS gentleman, who had long since retired from the active practice of the profession of medicine, to wield the pen as editor of the *Dublin Evening Mail*, died after a long illness on Saturday, September 27, at his residence at Greystones, Co. Wicklow. Dr. Maunsell was seventy-three years of age at the time of his decease. He graduated as M.D. of the University of Glasgow in 1831, and became a Fellow of the Royal College of Surgeons in Ireland in the following year. With the late Dr. Evanson he wrote a well-known treatise on the "Management and Diseases of Children," and he was also the author of the "Dublin Practice of Midwifery." He was formerly Secretary to Council of the Royal College of Surgeons in Ireland.

THE HEALTH REPORT ON BETHNAL-GREEN FOR 1878.

IN his annual report on the sanitary condition of the parish of St. Matthew, Bethnal-green, for the year 1878, Dr. George Paddock Bate, the Medical Officer of Health for the district, suggests an alteration in the present law as regards coroners' inquests. Viewing the body, he maintains, is a relic of olden times, when skilled evidence of the cause of death was not usually forthcoming, and an inspection of the body was, in many cases, the only means by which a jury could arrive at their verdict how the deceased person came by his death. In the present day, with medical evidence available, such view is entirely unnecessary, repulsive, and sometimes dangerous, since the subject of the inquest may have died of some contagious disorder. Moreover, were this view of the body dispensed with, the inquests could be held in a suitable court-room provided in each parish, which would obviate the present unseemly practice of having recourse to public-houses. The importance of obtaining a correct estimate of the increase of the population as a basis for calculating the vital statistics, has induced Dr. Bate to adopt a different method from that heretofore employed by him, which seems an undoubted improvement, though we have not space to describe it here. The death-rate of the parish was 23 per 1000, a rate precisely similar to that of the preceding year, but still, Dr. Bate thinks, a subject of congratulation as being 0.5 per 1000 less than the general metropolitan rate. In winding up a most comprehensive report, Dr. Bate regrets that legal difficulties are still allowed to interfere with the building of a new mortuary for the parish, the same being urgently required, inasmuch as an old watch-house, utterly inadequate for the purpose, has had to be resorted to as a temporary resting-place for no less than sixty-three bodies during the past year. Parochial authorities do not, as a rule, move very quickly, but parochial authorities *plus* legal difficulties appears almost a hopeless case.

ALEXIS ST. MARTIN.—Alexis St. Martin, famous in physiological works for the experiments of Dr. Beaumont on digestion, is still alive, and is seventy-eight years of age. The wound in his stomach has never closed, and at present the opening in his side is nearly an inch in diameter. His general health appears not to have been in any way affected by his curious wound, but has always been excellent. For his age he is now quite strong and hearty, having always been a hard worker, and never suffering by lack of digestion. He has been the father of twenty or more children.—*Canada Med. and Surg. Jour.*, August.

PROVISION FOR LUNATICS IN PARIS.—The Département de la Seine possesses three establishments for the treatment of the insane, in the Asile Sainte-Anne in Paris, the Asile de Ville-Evrard at Neuilly-sur-Marne, and the Asile de Vaucluse at Epinay-sur-Orge. But the mean number of the patients being 12,000 per annum, these three establishments do not suffice. The administration of the Préfet, which has charge of lunatics, has therefore to arrange for the reception of the remainder with the Assistance Publique for two divisions of Bicêtre and Salpêtrière, and with about twenty-five provincial asylums or hospices for the accommodation of the remainder. The Sainte-Anne Asylum was opened in 1867, and it is at that establishment the division of the patients is made amongst the different asylums and hospices, according to the orders of the Préfet, in compliance with the indications of the physicians and the convenience of the friends of the lunatics. The Ville-Evrard Asylum contains also a boarding establishment for the treatment of lunatics of both sexes, these being divided into three categories, paying respectively 2400, 1800, and 1200 francs, and having the enjoyment of a reserved park. Since 1876 the Vaucluse Asylum has been provided with a department for 140 male idiots from seven to sixteen years of age. Female idiots are treated at Salpêtrière; and the younger boys, and those who are epileptic and entirely infirm, are received at Bicêtre.—*Union Méd.*, September 11.

CHINESE MEDICAL MATTERS.

THE following interesting notes on Chinese medical matters were originally published by Dr. Jamieson, of Shanghai, in the Medical Reports contained in the *Customs Gazette*, and will well bear reproduction:—

OPERATIVE MIDWIFERY.

A woman, aged thirty-three, in her third pregnancy, fell into labour on the morning of March 7, 1878. Her previous labours, eight years ago and three years ago respectively, had been natural and speedy. Since the last she had become somewhat weak, and had contracted a stoop which she attributed to overwork in paddy fields, as, her husband being a good-for-nothing fellow, she had to support the entire family. She had not suffered particularly throughout this pregnancy. Pains continued through the first day and night, and became violent on the following day, when towards evening two midwives were summoned. On the morning of the 9th, the waters having run off, while no progress was made, a third midwife was called, who cut into the child's head, and endeavoured to extract with an iron hook. Failing in this attempt all three midwives ran away, and the woman seems to have been left to die. Four days later (March 13), at 4 p.m., labour having now lasted six days and a half, the woman was brought by her husband to the Gutzlaff Hospital. She was then quite prostrate, with high fever, running pulse, dry tongue, and muttering delirium, interrupted every now and then by a laugh. She was struggling from side to side and picking at the coverlid. The external parts were greatly swollen but not gangrenous. Each deeper movement of respiration and every motion of the body produced an audible escape of foetid gas from the vagina. The clothes were saturated with putrid discharges. All uterine action had ceased, and the bladder was distended. An ounce of brandy was beaten up with a raw egg and administered, urine to the amount of three pints or thereabouts was drawn off with a flexible male catheter, and an examination was made. The pelvis was occupied by a mass firmly moulded to it, the central portion presenting a cavity partly filled with a substance which broke down under the finger. The anterior boundary of the cavity was formed by a sharp ridge of bone, but the posterior border could not be made out. It was upon asking for an explanation of this that the story of the midwives (just related) came out. The pelvis was roomy from side to side, but the antero-posterior diameter could not be ascertained. Towards the right side the shape of the cranium showed that the head was engaged almost exactly in the transverse diameter. An attempt to get past the obstruction so as to turn having failed, the integuments were as carefully as possibly doubled in over the bone, and the remains of the head were with some difficulty extracted with the long forceps. But the problem of delivery seemed now nearly as far from solution as ever. The maternal structures were so much tumefied and the child's neck had stretched so much in consequence of the softening of the tissues that it was found impossible to reach an arm even after the extraction of the head. The head was therefore removed, and then the left arm, which lay just above and a little to the left of the pubes, was brought down. The necessary instruments having meanwhile arrived, and traction on the arm having failed to stir the trunk, Smellie's scissors were guided behind the left clavicle into the chest, the contents of which were thoroughly broken up. The blades of Barnes's cephalotribe were now with great difficulty insinuated diagonally across the thorax, and screwed home. The thorax being thus completely crushed and the diaphragm torn from its attachments, there was a profuse discharge of foetid gas and fluid from the abdomen through the thorax, and the trunk of a male child was then easily extracted. The instrument had broken the spine at about the second or third dorsal vertebra, crushing in the ribs on it. The mother seemed insensible to pain, partly stupefied perhaps by the brandy she had taken. Ergot and half an ounce of brandy were then administered, and gentle pressure and friction applied to the uterus, which contracted well on the placenta. After waiting ten or fifteen minutes, during which the woman was carefully surrounded with hot bottles and fed assiduously with hot milk congee, the placenta was discovered to be adherent over about one-third of its surface, and

had to be peeled off. While introducing the hand into the uterus the promontory formed by the sacrum and last lumbar vertebra was found to reduce the antero-posterior diameter of the pelvis to three inches and a half. In other words, on presenting the transverse axis of my hand to the conjugate diameter of the brim I could pass my fingers between the promontory and the symphysis only when the index was folded in front of the medius. In order to reach the placenta it was therefore necessary to skirt the promontory on the left side. Immediately on removing the placenta the uterus contracted well. The passages were then washed out with a tepid stream of 5 per cent. carbolic lotion, and the abdomen, vulva, and legs rapidly sponged with a strong solution of the acid in hot water. The woman was stripped naked and removed to a clean hot bed, lightly bandaged, and carried into an empty ward the floor of which had meanwhile been profusely sprinkled with concentrated carbolic acid. Half a drachm of laudanum was given by the mouth, and she soon fell asleep. During the night she was fed frequently with milk congee. At 2 a.m. she had a severe rigor, but at 8 a.m. on the 14th her temperature was 100° Fahr. From this out she took three grains of quinine every four hours until she became deaf, when the quantity was diminished. Though relieved by catheter every six hours, the urine ran off (through the urethra) unconsciously during the intervals. The discharge was foetid but not profuse. On the 16th she passed urine once voluntarily, but in anticipation of a probable vesico-vaginal fistula the use of the catheter was continued. From this till the 22nd there was neither fever nor abdominal tenderness, but on the 20th there was a sudden and considerable discharge of purulent fluid from the vagina, not foetid. This continued for two days, but it was not easy to tell where it came from. The quantity was increased by even slight pressure on the abdomen immediately above the pubes. An injection of a 2 per cent. solution of carbolic acid was used twice daily. On the 22nd, in spite of the continued administration of quinine, there was sharp fever (103°), with dry tongue and flushed cheeks, but deep pressure over the uterus produced no pain. A puffy pink spot was found over the right femoral ring, and the left ischio-rectal region seemed brawny. A purgative with hot fomentations locally gave temporary relief, and on the 23rd an abscess by the side of the vagina was aspirated through the left labium, about two ounces of indescribably foetid broken-down blood and pus escaping. On the 26th another large collection was aspirated at a lower point of the same labium, after which convalescence proceeded without interruption, the catheter being abandoned on April 5, and the patient discharged on the 12th.

On examining the child's head, it was found that the left parietal and frontal bones had been broken away over an irregular space extending from immediately behind the protuberance, one inch and a half upwards, and about two inches forwards, leaving the sagittal suture intact, and but slightly disturbing the anterior fontanelle, but breaking across the coronal suture. The mechanism of the result of the Chinese operation is easily followed. The head having entered the brim in the second position, with the left parietal protuberance lowest, was arrested there for some time by the sacral prominence. After a certain delay the head gradually became moulded, and was partly rotated into the sacral cavity, causing a larger surface than usual of the parietal bone to present. Up to the time of the operation there could have been no attempt at flexion of the head, else the frontal bone would probably have escaped. This shows how high the head was when it was opened, and proves the temerity of the Chinese midwives, who could not have known that in consequence of the conjugate shortening the chances were against the child being born without interference. Once the brain was evacuated or partly evacuated, the head was driven almost directly along the axis of the pelvis with little or no attempt at rotation. Meanwhile the shoulders, whose relations to the pelvis would have been unaltered by what had happened to the head, and the persistence of whose diameters in consequence of the integrity of their framework would render them prone to follow the natural spiral course, came to be engaged in the brim. The right, probably in consequence of softening of the muscular structures after death and in spite of the sacral projection, revolved partly into the hollow of the sacrum, where it was fixed by the continuous though gradually weakening uterine action. The softened tissues of

both child and mother were thus moulded to one another, and the fixation was completed by the inflation of the child's thorax and abdomen with gases, the products of decomposition.

This case must speedily have ended fatally, but for the lucky chance by which it was possible to coax the blades of the cephalotribe into their position. The woman could by no possibility have long borne a piecemeal digging out of the putrid mass which lay jammed in the pelvis. Here again, as in the case reported in the last issue of this series, the speedy and permanent contraction of the womb under the most adverse circumstances of exhaustion and blood-poisoning is worthy of notice. Had foreign assistance been sought at an early stage the child might easily have been saved by turning, or even perhaps by the forceps.

CARIES OF THE SCAPULA.

The following case, though dating from long ago, is now published for the purpose of drawing attention to the readiness with which in Chinese patients caries spreads over large surfaces of bone, and the apparent inability of the still living tissue to throw up a barrier against its advance. I have seldom, if ever, seen a case of genuine necrosis in a Chinese patient, a sequestrum turning cleanly out of a healthy granulating capsule:—

Chwang, aged twenty-six, a native of Ningpo, was admitted to the Hongkew Hospital under my care on June 9, 1870. He could not lift his right arm from his side, and two sinuses, one situated on the inner edge of the deltoid two inches above its insertion, the other at its insertion, were freely discharging thin, sanious pus. Following the higher one with a long flexible probe, disease of the scapula was made out, but the humerus could not be touched. The patient stated that he had sustained no injury, but that seven months before he began to suffer pain in and around the shoulder-joint. A foreign surgeon had drawn a seton across the front of the joint, which, however, gave no relief.

On June 12 an incision was made down to the bone along the entire length of the spine of the scapula, which, with the exception of the acromion process, at once broke away. An incision at right angles to the first, and extending from an inch above its centre to the inferior angle of the bone, laid bare, on reflecting the flaps, the entire extent of the disease. The finger insinuated under the edge of the bone all round from the suprascapular notch to the origin of the long head of the triceps swept it clear from the soft parts, the attachments of the muscles having quite disappeared. Attempts to lift the bone bodily succeeded only in breaking bits out of it, and accordingly it had to be removed piece by piece, the glenoid cavity and acromion and coracoid processes excepted. They had luckily escaped or resisted the spread of the disease. When all the fragments were removed I found myself on the serratus magnus, the entire of the subscapularis having disappeared, and the former muscle having contracted new attachments.

The wound healed by first intention, with the exception of one spot about the middle of the perpendicular incision. This remained open until the end of July, when a small fragment of bone was detected and extracted. A week later the patient was discharged perfectly well; and three months later—though unable, of course, to lift his arm directly outwards—he was able to fill, carry, and empty buckets, and had obtained employment as water-coolie in a tea house.

SEVERE INJURY, WITH RECOVERY.

A severe accident happened to a Customs officer at Whampoa on the night of October 11 last. He fell from the verandah of his house, a height of twenty-three feet. He was alone when he fell, and when found was quite delirious, and a good deal of blood was observed on the chunam walk on which he fell. I saw him about eight hours after the accident, and found him delirious but in great pain, with some blood on his pillow that seemed to have trickled from his right ear. The urine he passed was of a bloody colour, as if some internal organs had been ruptured. No limbs were fractured, but his right foot was badly sprained. There was no wound on the scalp, and of course no fissure of the cranium could be detected. His chest seemed to have sustained a severe bruise, as the ribs on the right side protruded somewhat prominently on the back. The precise nature and extent of other injuries could not then be ascertained, owing to the impossibility of getting any reliable

information. In his fall he appeared to have first alighted on his feet, then on his breech, and then on his side or head. The pupils were normal, and no paralysis was observed then or afterwards. Two days after the accident he was removed to Canton. It was thought that the escape of blood from the ear indicated fracture of the base of the skull. His head was at once shaved, and ice was kept on it for a long time. He was purged, and afterwards was given small doses of calomel and antimony. In two days the urine got quite clear. For more than a month he had fever. During the first four days the fever was not high. In the morning he was a little sensible and able to recognise his wife and one or two of his friends; as night approached he became noisy and delirious. On the fourth day his head was blistered; on the seventh day the fever ran high, and he was wildly delirious. The cold douche was now applied to his head. On the twelfth day after the accident the fever abated somewhat, his tongue showed signs of cleaning, and for the first time after the accident he could be turned on his side and washed. Still he was not rational. From this time he got gradually quieter and had less fever. His temperature for a long time was about 101° in the morning, and 101·5° or 102° in the evening. He became by degrees more sensible, and on November 16, thirty-five days after his fall, he was marked in my note-book as "quite rational and able to sit up." But so slow was his improvement that for a long time there was very little hope of his recovering his reason. His fever continued some time longer, and did not leave him till the end of the year. For a long time his brain was weak and irritable, so that sitting up for more than an hour or two would cause fatigue and giddiness, and even many months after the accident sitting long near a fire would affect his head. When he became somewhat rational and could be examined it was discovered that he could not lift his thigh or flex it on his body, as any such motion caused great pain. There seems to have been a severe sprain in and about the hip-joint, with inflammation and its results. The leg is not shortened or dislocated, though it lies a little inverted. In January he was able to walk about a little in the house with crutches, and I was in hope that he would in time regain sufficient power to walk without them; but his improvement was interrupted by a severe attack of pneumonia in that month, which laid him up for three weeks, and threw him back considerably. Finding that any attempt to flex the thigh, or to rotate it inward, brings on great pain, I have lately examined him under chloroform. I find that I can then flex the thigh on the body to a considerable extent. It is now nearly six months since the accident. He has been quite rational for a long time, and his head is getting much stronger. He is able to walk about with crutches, but has not as yet been out of his house. There is no prospect of his ever being able to recover completely the use of his leg, though he may in time regain sufficient power to walk without assistance.

This is an interesting case in some respects—first, his recovery with life after such a severe fall; second, his recovery of his reason after more than a month's derangement; third, our inability to account for the cause of the blood that issued from his ear. (a) The large quantity of blood that came from his ear seemed to indicate fracture of the base of the skull with laceration of the dura mater and of the tympanum. There might have been undiscovered fracture of the skull, but on examining the tympanum no rupture of the membrane was seen. Besides, the patient's hearing was good from the first, and there was also no paralysis of any part of the face. There were symptoms of subacute inflammation of the brain, but not of compression.

TREATMENT OF SPRAINS.—The routine treatment of sprains at the Philadelphia Hospital is to place the injured foot in a bath of a temperature of 70° Fahr. The temperature is gradually raised until the extreme point of toleration is attained. This treatment is followed by most excellent results.—*New York Med. Rev.*, August 23.

(a) Bleeding from the ear, while in such cases it always suggests fracture of the petrous portion, may result, even when profuse, from rupture of the lining membrane of the external ear or of the tympanic membrane, with or without rupture of the mucous membrane of the middle ear. Again, from the close relation of the mastoid cells in front with the external ear, and internally with the lateral sinus, a fracture of this process by a blow or fall may cause profuse hæmorrhage of serious though by no means of necessarily fatal import.

FROM ABROAD.

LACHRYMAL CATARRH.

PROFESSOR ST. JOHN ROOSA, in a clinical lecture upon the above subject, delivered at the University of New York (*N. Y. Med. Record*, August 9), observes that although a "cold in the head" is generally regarded as a trivial affection, it may be the fruitful source of serious evils, the due sequence of which remains unperceived in consequence of inexact observation. At all events, in double lachrymal catarrh it plays an important part.

In this affection there is an overflow of tears when the eyes are used closely, as in sewing, reading, etc., and especially on exposure to wind. There is usually a much greater overflow when the organ is exposed to the wind than when it is exercised at work, even when considerable strain upon the accommodation is produced. There are many persons who have lachrymal catarrh that does not give them much inconvenience so long as they remain in the house, this becoming very troublesome as soon as they go out into the air. Sometimes the practitioner may mistake this catarrh for conjunctivitis, an error which it is of importance to avoid, as it will never be cured by treating it with astringents, however long these may be persevered with. They cannot gain access to the canaliculus, and are of no avail. Even if they could enter the punctum, this would be in insufficient quantity, and there is usually stricture of the canal and considerable swelling. As to distinguishing this catarrh from conjunctivitis, we should imitate the practice of Graefe, who, when a patient with red eyes came before him, was in the habit of placing his thumbs over the lachrymal sacs and pressing upon them for the purpose of observing whether or not, muco-pus could be made to issue from the puncta. If it could, he immediately knew that whatever else was present, lachrymal catarrh existed. The absence of such issue is not a proof of the non-existence of the catarrh, as the patient just before the examination may by the force of habit have himself emptied the sac and canaliculi. However, the important point in every case of conjunctivitis is to decide the condition of the punctum, the canaliculus, the sac, and the nasal duct. If not satisfied of the existence of the catarrh by making pressure, a close examination of the conjunctiva should be made to see whether it is reddened throughout its entire extent, or is not somewhat more intensely so towards the lachrymal passages—the edges of the eyelids being also carefully examined.

Prof. Roosa believes that lachrymal catarrh chiefly originates in naso-pharyngeal catarrh, and that this chiefly occurs in persons who are not very vigorous and who live under improper hygienic conditions, and in persons tolerably strong but who also live under improper hygienic conditions. No person in a physiological state of health, unless exposed to extraordinary influences and severe changes of temperature, will get naso-pharyngeal catarrh. Alluding to the kind of persons liable to it, he observes that it may occur on the slightest provocation in those whose system is tainted with syphilis, this being a blood-poison which may be excited into action by improper hygienic conditions, and often by slight exposures. It is a disease which may manifest itself in any part of the body, requiring great pains to be taken with regard to the general condition and surroundings of the subject of it. The reason why many get well of syphilis without much special treatment is found in the fact that they have abundance of good food and live under proper conditions after the poison enters the system. Little children who are improperly fed and clothed, and perhaps inherit a consumptive diathesis, also get naso-pharyngeal catarrh on the slightest provocation. People, too, who live improperly as regards food and drink are also very liable to it. A man who takes a great deal of alcohol cares but little for solid and nutritious food, and his system becomes depreciated, rendering him apt to get this catarrh. Again, persons who live and work indoors most of their time, who do not get a proper amount of exercise, who do not bathe themselves sufficiently with cold or luke-warm water and "groom" themselves properly—whose skin does not react quickly after sudden exposure—such persons frequently suffer from naso-pharyngeal catarrh. "The natural condition of every human being requires that he should have his skin well groomed

every day. Not with much soap necessarily, nor necessarily with a large quantity of water; but he should be well rubbed in order that his skin be kept in a proper condition. I am confident that a great deal of lachrymal catarrh can be avoided in that manner. In some cases, however, the disease advances from the other direction, and a conjunctivitis goes on until it develops a lachrymal catarrh. The same remarks which I have made regarding naso-pharyngeal catarrh are, to a certain extent, applicable to conjunctivitis: not so much, however, for a man may get conjunctivitis from over-working the eyes, or from exposure to wind and dust, when he is in a good condition of health."

In treating these cases, general medication will not avail without surgical interference, the object being to effect a dilatation by means of which the secretion can be carried off. This treatment, not long since an opprobrium of surgery, has now become pre-eminently satisfactory.

"How was this method of treatment reached? Mr. Bowman suggested that the canaliculus be opened, and converted into an open canal. He did that with scissors, having first probed it, and then passed a probe into the nasal duct. We now use a knife to open the canaliculus, and we do not resort to the preparatory probing in ordinary cases. Yet the principle which Mr. Bowman enunciated is still carried out in all places where ophthalmic disease is treated according to the advanced opinions of the nineteenth century. You will hear of Stilling's method of cutting through the stricture, and you will hear of destroying the lachrymal sac; but it is my conviction that in a very large percentage of cases—so large as to render the others completely exceptional—you will do very well if you dilate the canaliculus and probe the nasal duct. If you will patiently and persistently treat cases in that way, you will get very good results indeed. Children should be put under the influence of ether before slitting the canaliculus is performed; but you may learn to probe children's eyes without an anæsthetic. Lachrymal catarrh in children is usually recovered from very rapidly. One probing is frequently sufficient in very young children to effect a cure in a mild case.

"It will be observed that I have not said anything about lachrymal abscess or the formation of lachrymal fistula. These are the consequences of lachrymal catarrh, and the treatment is essentially the same. Get the passages into such a condition that nature can do the work of carrying off the tears, and the abscess will take care of itself. I should like to speak of acute lachrymal abscess, but will simply say that you must be on your guard not to take it for a case of facial erysipelas, and treat it for such. Please to remember that the history of the case is an important factor in diagnosis in these instances; and you should determine whether or not the patient has had a weeping eye for some time previous to the acute attack—for there will be no lachrymation when the parts are greatly swollen—and you can usually make a correct diagnosis."

THE ADMISSION OF FOREIGN PRACTITIONERS.

We have been informed that on the reassembling of the French Chambers, the Government fully intend to support the reintroduction of the Roger-Marvais *projet de loi* concerning the admission of foreigners to practise in France. It is to be, however, in a modified form, so that instead of compelling foreign practitioners to go to school again and submit to the various examinations required for the diploma, it is intended to oblige them to undergo only the final or practical examination. It has been found impracticable to adjust any *ad eundem* or *equivalence* principle of granting diplomas, and one examination will be insisted upon. In the meantime the same question has been for some time since keenly agitated in Belgium, and after a prolonged discussion the Academy of Medicine of that country has agreed unanimously to the resolutions proposed by its Vice-President, Dr. Warlomont. The law which was passed in 1849 and confirmed in 1857 declared that the Government should possess the power of issuing licences to practise to foreigners furnished with a diploma of a licentiate, doctor, or *pharmacien*, upon the recommendation of an examining jury. By a law passed in 1876, however, the Government has the power of granting such licences to all persons furnished with the diploma of doctor properly obtained from a regularly organised foreign university—the holder of such diploma

being presumed to be in possession of a knowledge of the subjects which have been taught him, and upon which he has been examined. No means seem to have been adopted for ascertaining the relative value or *equivalence* of these different diplomas. "A doctor of the University of Timbuctoo or of Bahia acquired by this law the right of obtaining the right to practise, while a Fellow of the Royal College of Physicians of London could not avail himself of his title, which is not that of 'doctor,' nor of the authority which granted him his diploma, which is not a university." By this law persons might be admitted to practise, of the sufficiency of whose education and examination no guarantee whatever was furnished. Within a few months no less than thirteen such licences to practise without examination have been granted, while under the old law, between 1849 and 1875 (*i.e.*, twenty-seven years), the entire number only amounted to twenty-three. If during this period the same proportion of diplomas had been granted as prevailed between November, 1876, and April, 1879, the total number of licences without examination would have been, not twenty-three, but 300. The Academy demands the alteration of this law, which, passed unexpectedly and without discussion, substitutes the good pleasure of the Minister for suitable guarantees of capacity, and inflicts a wound on medical dignity by placing side by side with those who have furnished every guarantee, persons who are only tolerated. The Academy passed the following resolutions:—1. To request the Minister of Public Instruction to postpone complying with all demands for dispensating licences until the Government has discussed the formalities to be observed in such cases (which it has never yet done, although enabled by the law to establish these). 2. To express the wish that the 42nd clause of the law may be modified as follows:—"The Government may accord licences to Belgians or foreigners furnished with a diploma of licentiate, doctor, or *pharmacien*, conformably to the recommendation of the central examining jury. 3. As regards the art of healing, this licence cannot in any case be accorded to a practitioner who has not proved before the jury of the third doctorate (corresponding, we suppose, to the final examination for the ordinary diploma) his aptitude for practice as a physician, surgeon, and accoucheur.

PROFESSOR HEBRA.—The *Allg. Wiener Med. Zeitung*, announcing that this distinguished dermatologist has been made a Hofrath on account of the great services which he has rendered to science, observes that this is a well-deserved recognition of the deserts of one who is an ornament to the Vienna School of Medicine, to the celebrity of which he has so much contributed for more than thirty years.

MYOPIA AND THE COLOUR OF THE EYES.—M. Nicaté stated at the meeting of the French Society for the Advancement of Science that as one of the results of his examination of 3434 eyes in relation to myopia at Marseilles, this defect was observed far more frequently in light than in dark eyes, blue and grey eyes furnishing 18 per cent., and black and brown eyes only 11.27 per cent.—*Progrès Méd.*, September 13.

EXCISION OF THE ELBOW.—Prof. Ollier, of Lyons, in a paper read at the Montpellier Congress, observed that at the commencement of his practice he performed this operation only exceptionally; but having recognised its value he finds that his results are much more satisfactory than formerly—a fact which he thinks attributable not only to improvements in operating, but especially to improvements in dressing. In spite of the great success which he has obtained, this operation is still practised but little in France, while abroad, especially in Germany, it is perhaps too frequently resorted to. In very young children Prof. Ollier very rarely performs excision, nature presenting great resources at this age, so that by the aid of a good hygiene, a tonic diet, immobilisation, and ignipuncture, arthritis of the elbow may be rapidly and completely cured. In the second stage of childhood and in adolescence it should be practised at an early period, as the cure is then rapid and the reproduction of an articulation of the same type usually takes place, the patient preserving a vigorous limb. Beyond twenty Prof. Ollier seldom performs the operation, a useful limb rarely being produced after this age.—*Gaz. Hebdomadaire*, September 12.

REVIEWS.

On Loss of Weight, Blood-spitting, and Lung Disease. By HORACE DOBELL, M.D., Consulting Physician to the Royal Hospital for Diseases of the Chest, etc. London: J. and A. Churchill. 1878.

The Causes and Results of Pulmonary Hæmorrhage; with Remarks on Treatment. By REGINALD E. THOMPSON, M.D. Cantab., Senior Assistant-Physician and Pathologist to Brompton Hospital. London: Smith, Elder, and Co. 1879.

Seniores priores; and yet of the two works on an allied subject, whose titles we have just quoted, we are inclined to prefer that written by the younger author of the two. We scarcely understand the object of Dr. Dobell's book, except it is to draw attention to pancreatic emulsion and re-assert his old ideas, which no one is ever likely to believe, that derangement of the pancreas is "the initial cause of consumption." The earlier part of the book is taken up with histories of cases, and tables of statistics about the same, which it is very laborious work to struggle through. Nor do they lead to very much after all, except to the conclusion that bleeding from the lungs in phthisis is most often a secondary accident in the course of a disease one of whose features is progressive destruction of tissue, so that it is not surprising that a bloodvessel gets laid open now and then, or weakened so that it gives way under a slight strain. This, however, is our explanation of the bleeding; but Dr. Dobell cannot admit anything so simple. He is obliged to return to that originally suggested by himself "as affording the most rational and satisfactory mode of accounting for the phenomenon;—the damage to the finest vessels of the pulmonary alveoli, by oxidation of albuminoid tissue during the interchange of gases between the air in the alveoli and the blood deprived of its normal amount of fat; *i.e.*, by the first stage of pulmonary tuberculation." It is difficult to see how this is any explanation at all, especially when we remember that "the finest vessels" in a tubercular lung are obliterated, or at any rate rendered impervious, by the cell-growth which takes place around them. This is proved most distinctly by our being unable to inject such vessels artificially. No doubt ulcerative processes, such as are alluded to above, will not explain all cases of early hæmorrhage in phthisis, and we may have to think of congestion or collateral fluxion as one cause of such hæmoptysis. This, indeed, Dr. Dobell admits at page 25, where he says of this symptom—"In a large number of cases it is simply the result of congestion and disintegration of a highly vascular organ in the course of disease of local origin." But then what becomes of his "working hypothesis" of oxidation of albuminoid tissue, etc.? Whether the congestion theory has as much evidence in its favour as its supporters believe, is an open question. When we remember the small amount of staining which occurs in the sputa of acute pneumonia, where surely congestion reigns supreme, and the absence of hæmoptysis in the intense collateral fluxion of a lung compressed by pleuritic effusion, it makes one hesitate to ascribe too much to these agencies. How large a share ulceration has in causing the hæmoptysis of phthisis is proved by Dr. Reginald Thompson's table (*loc. cit.*, page 113), "showing the stage of phthisis and age at which bleeding occurred in 1000 cases." Out of 500 male cases only 86 had hæmoptysis in the first stage, while in 242 this symptom occurred in the second, and in 172 in the third stage. Similarly, of 500 female cases, 121 bled in the first stage, 195 in the second, and 184 in the third. Dr. Thompson's deduction from this table is, "That the stage of phthisis at which bleeding most frequently occurs is the second stage, that being the period at which the vessels are beginning to break down under the process of ulcerative destruction. This is the period too at which the vessels are least protected, and the greatest amount of lung supplied with vessels remains uninjured."

Our space will not allow us to pursue this discussion farther, but we must pass on to notice a few other of the points of interest in Dr. Thompson's suggestive work. The author admits that some of his views are not in accordance with the accepted doctrines of the great masters of medicine, and prays therefore for fair consideration of them. For example, he is strongly against the idea that hæmoptysis is caused by the "growth of tubercle." He shows indeed that "those forms of phthisis which are essentially tubercular are not

characterised, as a rule, by hæmorrhage" (page 20). Again he refers a number of cases of hæmoptysis in phthisis to an "inherited predisposition to hæmorrhage," which affects many members of the same family, and may be exhibited in various ways with or without phthisis. Such a condition, he believes, "may be specially transmitted, but it is separable from and not necessarily included in that general structural delicacy which forms the main part of the predisposition to phthisis." The evidence in favour of this somewhat novel view Dr. Thompson gives in Chapter VI., and it well deserves our readers' attention. The same is true of Chapter IV., "On the Pathological Traces of Hæmorrhage," which, by-the-by, is illustrated with some excellent coloured lithographic plates. Dr. Thompson in this chapter clearly traces the changes which extravasated blood goes through in the lungs, and in it and Chapter V. he offers some important remarks on the ultimate fate of certain fibrinous nodules, which probably are hæmorrhagic residues, and which he believes "form the nucleus of initial softening (in phthisis) far more often than is at present suspected." All these ideas of Dr. Thompson's are evidently the outcome of much hard pathological work, and off-hand discussion of them is impossible. Our impression is that his position on the whole is a strong one, and that it will be difficult to controvert much that he advances. Of one thing we are sure, that he is doing good service by strongly fixing the attention of the profession on muscular exertion and high atmospheric temperature as potent exciting causes of hæmoptysis in phthisis. We have long been accustomed to specially warn our patients against both of these, with the best effect where the warning was attended to.

Both Dr. Thompson and Dr. Dobell have useful chapters on the treatment of pulmonary hæmorrhage; but it is evident that the former has less faith in checking hæmoptysis by drugs than the latter. We notice that both speak favourably of ergot—a remedy which Dr. Dobell claims to have resuscitated in 1868, in an article which "soon acquired a world-wide circulation, and became a household word with many practitioners."

We end as we began. We prefer Dr. Thompson's book to Dr. Dobell's. The one is clear and to the point, the other wordy and often obscure. Moreover, Dr. Dobell has used scissors and paste so largely in constructing his book that, on a rough estimate, we should say at least a third of it consists merely of quotations from other authors. Still, some people may not have read these authors, or may be glad to have their memories refreshed a little about them if they have. Hence, as many of the authorities quoted are men of mark whose opinions carry weight, they may perhaps sometimes act as a counterpoise to any doubtful doctrines that Dr. Dobell himself may offer to the public.

GENERAL CORRESPONDENCE.

THE ETIOLOGY OF TYPHOID FEVER.

LETTER FROM MR. W. E. PORTER.

[To the Editor of the Medical Times and Gazette.]

SIR,—I shall be glad to assist in carrying out the suggestion made by Dr. Robert King in the latter part of the last paragraph of his lecture "On the Etiology of Typhoid Fever," in your issue of August 2, by stating the opinions I have formed during more than twenty years of practice.

For a long time I have been fully convinced of the spontaneous origin of typhoid fever. More than ten years ago a letter appeared in the *Lancet* very clearly enunciating that doctrine, followed by one from myself coinciding with the view; and subsequent observation has fully confirmed it.

The contaminated-water theory I do not believe in, and the contaminated-milk theory I believe to be equally fallacious. If it were possible for typhoid fever to be generated by either cause, whole districts would be depopulated, or rather never peopled. Ingenious theorists square their arguments very well, but they do not dovetail them with facts.

For fifteen out of twenty years the inmates of my house drank contaminated water; and in August and September, when the water became low in the well, it was at times so bad we could not drink it; yet we had no typhoid fever—

and, from what I can hear, there never had been any in this house. Theorists will, I have no doubt, advance something plausible in explanation; but the fact is significant, more particularly when it is taken into consideration how very often the same thing occurs. Milk, it strikes me, is quite likely to give rise to typhoid fever, but not by being contaminated with an imaginary modicum of impurity obtained second-hand from a cow drinking water from a dirty pond, or the milk-pans being washed in water tainted by the ooze from a drain or closet. When milk is taken into the stomach it is first, by the action of the gastric juice, curdled; the curd represents exactly so much cheese, and, if it is more than the gastric juice can redissolve, it passes undigested into the intestines, where, if it does not pass on with the other refuse, it makes a lodgment at one end or the other of the colon, and frequently at both ends; it there decomposes, noxious gases are formed which saturate the intestinal secretions and irritate the intestines; this produces diarrhoea, and the small patchy abrasions which are, I venture to suggest, the points of absorption into the system of that poison from which typhoid fever arises. Other accumulations in the intestines will do the same thing; and the more prone they are to putrefaction or fermentation, the more likely they are to produce typhoid inoculation. How long accumulations will remain in the bowels is a subject for investigation—two, three, and four weeks I know, and I think longer.

There are, I believe, three ways in which typhoid fever is ordinarily generated and spread. First, by spontaneous generation in the manner just described, and supported by the casual cases met with in practice that are untraceable to any source, and also by the fact that the disease frequently occurs among wealthy people who live in luxury and are not exposed to any of its ordinarily supposed causes. Second, by infection. The spread of typhoid fever is too common an occurrence to admit of a doubt that it is infectious, but not virulently so. It spreads, I think, by the respiration of contaminated air, and moderate cleanliness and careful ventilation will prevent and arrest it. Third, by the respiration of air contaminated by the exhalations from decomposing sewage: fresh sewage I believe to be innocuous. When I first settled in this place, typhoid fever was always among us. Subsequently a system of drainage was adopted; and while the work was going on, I think it was in the summer of 1859, we had a great epidemic—fifty-eight bad cases there were in this village and its immediate neighbourhood. Since then we have been almost completely free. Six years passed before there was a case at all, then we had one here and there at intervals, but no spread of the disease at any time. Such an outburst under the circumstances narrated, followed by such a total subsidence of the disease, points, I think, in the direction indicated.

In typhoid fever the colon always contains offensive scybala, which are passed off before there is any marked mitigation of symptoms, in lumps, crumbs, or sediment of a dark or dirty leaden colour, or in fluid stools equally dark and offensive at first, becoming lighter and less foetid later on, and natural in convalescence. In relapse the stools fall back to their original condition in a greater or less degree; and in fatal cases the colon is never cleared. If when people find their bowels acting in an imperfect manner, the stools offensive, and at the same time passing offensive flatus—which, if without any known special cause to produce it, is a sure indication of there being decomposing refuse in the intestines,—they were to observe a strict abstinence for two or three weeks and keep their bowels gently free, this disease would be but little known. If, in fact, the two great virtues of temperance and cleanliness were observed—the former in reference to the great main-sewer of the body, the latter in reference to the sewers of the house: so that the former was not allowed to get obstructed with the refuse of superfluous feeding, and the latter were kept clear with proper flushings—typhoid fever would, I believe, be unknown; and as an additional preventive, were we to take a hint given us by nature, and keep our sewers in dry seasons flushed as they are by rain in wet ones, we should have as little disease in the former as in the latter (of which the present summer is a marked example), and the use of stinking and expensive disinfectants would be obviated.

In thus stating the opinions I have formed relative to the causes and prevention of typhoid fever, I must add I have no sympathy with the cowardly and exaggerated fears of infectious disease at present so generally entertained. I do

not believe in the virulence of infection of any kind—our knowledge of the subject is too limited to attempt to teach it,—neither do I believe in the poisoning influence of every solitary pig-sty or garden closet—the good health generally enjoyed in farm-houses is a proof against that. The prevention of typhoid fever is, I believe, in our own hands: we must not look too high for things close by.

I am, &c., WM. ELLIOTT PORTER.

Lindfield, Sussex, September 30.

NEW INVENTIONS AND IMPROVEMENTS.

MISTURA BISMUTHI COMP.

THE compound introduced by J. Sellers, of 25, Ely-place, Hatton-garden, under the title of "Mistura Bismuthi Comp.," unquestionably possesses some merits. When diluted with water it makes a perfectly clear, pleasant, and very elegant mixture; and, while the active and powerful drugs of which it is composed render it, no doubt, an efficacious remedy in some forms of dyspepsia, its degree of concentration and handiness may make it useful and convenient to the practitioner in dispensing. But though it is recommended as "stomachic and anti-dyspeptic," it is certainly not a compound to be dealt with like an innocent mixture of bismuth and bitters. Each half-drachm of the mixture contains, it is stated, the following active ingredients in a condensed form:—Liq. bismuthi 3 j., chloric æther Mxv., tinct. nucis vomica Mviiij., acid. hydrocyanic., P.B., Mij., and morphia hydrochlor. gr. $\frac{1}{4}$. It might therefore prove a very mischievous medicine in some forms of dyspepsia, and of "gastric irritation with sickness." It certainly ought not to be obtainable by the public except by the order of a medical man; and Mr. Sellers runs a risk of doing not a little mischief by recommending it as always successful in those troublesome and difficult cases arising from sedentary habits or excesses of any kind, and as a most reliable remedy "wherever there is general depression and lack of nervous energy, with loss of appetite, or inability to assimilate food."

STARR'S EXTRACT OF BEEF.

THIS extract is said to contain "all the soluble ingredients of the finest beef," and it may be commended as a very convenient and pleasant preparation. It has a delicate flavour, and is quite free from any disagreeable burnt taste. Good beef-tea can be made from it; and it may also be very satisfactorily used to make soups quickly for the table. The cans in which the extract is put up are ingeniously made, with easily removable and replaceable covers, in addition to the tops which are to be cut open; and are consequently handy and safe when travelling, as the contained extract is as convenient and useful. The extract is prepared by Janvier, Cooper, and Co., of 8, Snow-hill, Holborn Viaduct, E.C.

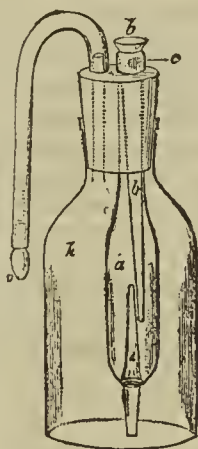
SPOROKTON (TUSON'S PATENT): A DISINFECTANT, DEODORISER, AND ANTISEPTIC.

MR. TUSON'S "Sporokton" supplies in a very ingenious and original way the means of applying the well-known powers of sulphurous acid gas as a disinfectant. The Liquid Sporokton (No. 1) is a solution of sulphurous acid gas of such strength that each pint holds ten gallons of the gas, and the non-volatile portion contains chloride of zinc, also known to be a powerful disinfectant and antiseptic. The combination of the two in an easily employed, safe, and cheap form constitutes a valuable addition to the weapons of sanitary science. A small quantity of the fluid put in a plate or saucer and placed in an apartment will rapidly give off gas enough to disinfect the room; and the odourless liquid left after all the gas has escaped will serve, when diluted with water, to disinfect drains, water-closets, etc. And a freely diluted solution of the Sporokton may be employed to disinfect undyed linen, cotton, woollen, and like textures without staining or otherwise injuring them. Mr. Tuson's invention is a real and powerful disinfectant and antiseptic, and we cannot but think it unfortunate that he could not find for it some name more easily "understood of the people." The preparation may be obtained from Sutton and Co., White Horse-yard, 100, High Holborn.

DR. FELTON'S INHALER FOR THE INHALATION OF CHLORIDE OF AMMONIUM AND VARIOUS MEDICATED VAPOURS.

THE inhalation of medicated vapours as a therapeutic measure in the treatment of catarrhal affections of the air-passages recommends itself to the reason as being the only practical method by which the parts thus affected—as the nasal passages, the upper part of the pharynx, larynx, trachea, and bronchial tubes—can be directly reached; and is coming more and more into use. And Dr. Felton's Inhaler appears to be a very convenient, manageable, and cheap apparatus for carrying out this kind of treatment. It is of the utmost importance that the drugs used—muriatic and liquid ammonia—for the inhalation of chloride of ammonium should be perfectly pure, and, we need not say, they must be used with some care. Other agents—as iodine, camphor, balsamic vapours, turpentine, etc.—may be used with the inhaler either in combination with the chloride of ammonium or alone. Messrs. Savory and Moore, 143, New Bond-street, are the sole agents for the United Kingdom.

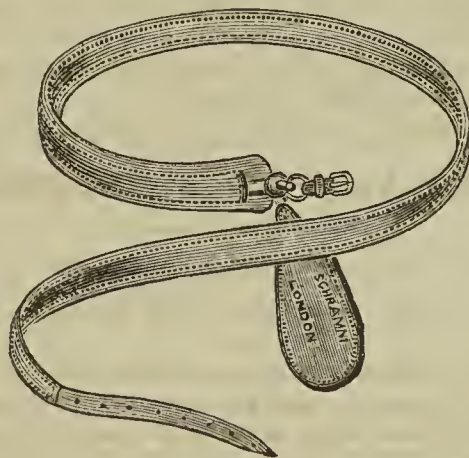
Description of the Inhaler.—*a*, acid holder, with neck



passing through stopper and tube *b* through bottom. This tube serves as an outlet for the acid vapour, and prevents the mixing of the two liquids. *a* holds sufficient acid for several days. *c*, short piece of rubber tubing stretched over neck of *a*. *b*, tube passing through *c* into *a*. It can be adjusted and held at any desired height by the packing *c*, or removed for the purpose of emptying the contents of *a*. In connexion with *c*, it prevents the escape of acid when tipped or inverted, and of vapour when not in use. This tube serves the double purpose of a funnel for the acid, and of directing a current of air against or through the acid during inhalation. By this arrangement the acid is all utilised, and dense fumes of chloride of ammonium produced.

UNIVERSAL TRUSS.

THE accompanying woodcut represents an excellent truss devised by Mr. Schramm, the instrument maker, of 64, Belmont-street, Chalk Farm-road. The pad is fixed to the pelvic belt by means of a modified ball-and-socket joint, which is perforated by a screw so as to permit of the altera-



tion of the direction of pressure, and to accurately gauge its amount. It is equally serviceable in inguinal or femoral hernia, and, by substituting a larger pad, can be used for umbilical hernia also. Mr. H. A. Reeves informs us that he has tried it in several cases, and found it very effectual. Considering its ingenious construction and moderate price, it appears well worthy of the attention of surgeons.

"PERFECTED" COD-LIVER OIL.

MESSRS. ALLEN AND HANBURYS, the eminent chemists of Plough-court, have for very many years manufactured thoroughly trustworthy cod-liver oil of the very best kind, and for some fifteen years have had a factory of their own in Norway; so that they are always able to offer to the public oil of the highest class. But now they have brought out an oil almost perfectly free from the smell and flavour,

which, while characteristic of fish oils, prove so nauseous and offensive to some patients as to make perseverance with cod-liver oil as a medicine simply impossible. The "Perfected" Oil is prepared by a new and special process, and it is claimed for it that it is free from nauseous taste and smell; that it does not give rise to offensive eructations or sickness; that it is consequently digested without any inconvenience; and that it presents the medicinal and nutritive properties of cod-liver oil in their highest degree of excellence. The oil is unquestionably singularly free from taste and smell, and we do not hesitate to strongly recommend it to the notice of the profession.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The half-yearly examination in Arts, etc., of candidates for the diplomas of Fellow and Member of this institution, which has been conducted by the College of Preceptors at Burlington House, has just been brought to a close. The following gentlemen passed for the Fellowship, viz.:—

H. H. H. Addenbrooke, H. W. Allingham, A. G. Andrews, F. Bass, J. H. Baker, G. C. Bell, L. W. Bickle, R. Blackwell, H. Blatherwick, L. H. Brown, H. M. Bullock, G. E. Butler, J. R. Collyer, H. Colman, A. E. Cox, H. E. Craig, A. R. Davidson, C. T. Dornford, C. Drage, S. H. Edgelow, C. J. Evers, O. F. Frohwein, G. G. Gidley, A. E. Godfrey, A. Greenwood, W. B. T. Gubbin, J. H. Hacking, C. H. Hale, J. M. Harper, H. Hick, E. Hudson, E. Jessop, C. L. Josling, F. C. Kempster, W. H. Kempster, H. A. Kent, C. F. H. Kitchen, C. U. Laws, J. Lewis, F. E. Little, H. Littlewood, W. Livermore, G. W. A. Lynch, W. C. Lysaght, W. C. McDonnell, J. Maclean, P. L. de Montbrun, Z. B. Mudge, S. J. Nicholls, E. K. O'Connor, E. A. Opie, H. C. Parsons, W. B. Paterson, J. Payne, G. C. Peachey, J. E. Penn, P. E. Perot, A. J. Popert, G. F. Richards, W. F. C. Rogers, F. Rothera, W. E. Rudd, G. L. Rugg, T. Scutt, H. A. Seagrave, E. H. Shore, E. W. Simmons, H. Simmons, J. Sprott, H. J. Stiles, A. E. Taylor, J. P. Thornton, W. B. Tomson, S. C. Townsend, J. Turton, J. A. Unitt, F. H. E. Voss, C. P. Walker, J. Walls, H. J. M. Watts, F. H. Weekes, C. J. West, C. J. Wilkinson, and J. Wreford.

The following gentlemen passed the Arts examination for the Membership, viz.:—

E. Acton, H. M. Addison, W. J. Adye, S. G. Allen, J. G. Anderson, S. J. Armstrong, E. C. Arnold, W. Arnold, E. Atkins, G. L. Baker, E. W. Barnes, T. D. C. Barry, W. O. Barsham, H. T. Barton, P. O. Bartram, R. D. Baugh, J. Beadle, T. M. Beale, W. E. Bennett, G. C. Bell, W. J. Best, S. T. Bewsey, J. B. C. Blatchley, W. Blaxland, W. L. Blight, W. G. Bower, E. A. Braithwaite, W. M. Bristow, E. L. Burd, F. C. Butt, N. A. Butterfield, W. A. Cahill, J. E. Calkin, E. K. Campbell, O. J. Caregan, R. J. Carter, C. G. Cassidy, A. E. L. Charpentier, M. Cheale, A. H. Cheales, E. J. Cheetham, J. F. H. Clarke, J. M. F. Clarke, H. E. Clarkson, G. E. Claxton, W. H. Clements, S. L. Cliff, E. E. Cooper, G. Cormick, C. F. Cornwell, R. Courteen, E. R. M. C. R. Cousins, C. W. Crealock, G. Cree, H. T. Croft, F. Crossley, T. A. Dagg, J. L. Davies, F. R. Dawson, A. J. Day, F. Deane, P. H. Delamere, W. F. Dewsnap, A. L. H. Dixon, M. G. Dundas, J. Eaton, H. Edgelow, V. Edwards, E. M. Ellis, R. Emmett, A. E. Ensor, R. B. Eskridge, E. Farr, E. A. Farr, F. Farrow, J. P. F. Field, F. W. Fischer, T. H. Fiske, C. T. E. Fitzgerald, H. Fooks, T. A. V. Ford, H. W. Forder, T. F. Forster, T. W. Fowler, E. C. Freeman, G. F. Gilbert, J. A. Gillett, T. E. Gordon, P. Grigson, C. W. de Gruchy, G. H. Gutch, E. Hands, J. F. Hands, A. G. Hanson, W. M. Hardy, A. E. Hart, A. E. Hayward, W. J. Hill, A. Hillaby, H. J. Hiltstead, A. V. Hodges, C. L. Hudson, Y. M. J. Humphreys, A. C. Ingle, D. B. Irving, P. V. Jackson, R. C. Javal, F. Jeffree, R. Jennings, A. E. Jervis, T. L. Johnston, A. D. Jollye, A. J. Jones, S. L. Jones, T. Jones, W. Jones, J. N. Kaye, A. E. Kempthorne, G. D. Kent, H. Lamb, F. E. Lawder, J. Llewellyn, A. C. E. Lonergan, D. C. McArthur, J. E. McDougall, S. A. O. Mackenzie, H. Martinucci, C. P. Mathew, H. B. Mathias, E. H. Meaden, P. W. Menzies, J. C. Michell, W. J. Midelton, A. G. Minns, R. E. Molesworth, D. A. de Montbrun, A. L. Morgan, E. H. Morgan, W. V. Morgan, H. M. Morris, W. R. P. Nettle, H. G. Nicholson, T. W. Norton, E. J. Olive, E. Palmer, R. Papillon, E. Partridge, H. L. Pearson, S. E. Pedley, F. Percival, T. H. Perkins, E. V. Phillips, W. H. Pinches, A. W. Popert, A. D. Ramage, J. Recks, J. S. Reed, P. J. Rendall, R. S. Reynolds, A. J. Richards, T. Richards, G. S. Ridgley, V. J. Rigg, J. R. Roberts, F. W. G. Routley, J. E. Ruck, G. H. Rutter, W. Saberton, J. W. Sandoe, C. L. Sansom, P. R. W. Santi, H. W. B. Saville, T. A. Sawden, J. Schade, A. T. Schofield, F. Scott, G. A. Shackel, C. J. S. Shaw, H. C. C. Shaw, W. Shaw, W. O. Shaw, H. Sheldermine, W. A. Shelswell, H. A. Sheppard, G. S. Shute, H. P. Shuttleworth, E. A. Simeon, H. Simms, J. T. Simpson, A. J. Smith, J. C. Smith, W. H. Somerton, G. South, F. G. Southern, A. H. Spurrier, A. E. Standing, J. F. Steedman, G. E. Stewart, J. W. Stoker, F. W. Stokes, T. E. Stuart, W. G. Sukliffe, F. Thomas, P. Thomas, S. R. Thompson, W. J. Tilley, G. L. Toppin, F. G. Tuke, A. C. Turner, V. W. Twining, L. Vassall, J. H. Wardle, G. S. Ware, J. A. Wetherell, F. White, A. H. Whittell, E. Whitwell, D. C. L. Williams, M. J. Williams, J. R. Wilson, S. Wimbush, T. Wingrave, W. Wise, T. T. Woodall, N. E. Woollett, and W. M. Yeoman.

Out of the large number of candidates examined for the Fellowship and Membership of the College, 137 passed for the first-named distinction, and 294 for the Membership, making a total of 431, who can at once commence their professional studies.

BIRTHS.

BANKART.—On September 26, at 19, Southernhay, Exeter, the wife of Jas. Bankart, M.B., of a son.

CLERKE.—On September 29, at the residence of her father, H.M.'s Dockyard, Chatham, the wife of Henry Clerke, Esq., Surgeon H.M.S. *Malabar*, of a son.

MARRIAGES.

BABER—BUTLER.—On September 23, at Rusthall, Tunbridge Wells, John Baber, M.D., of Thurloe-square, S.W., to Rosa Seldon, fifth daughter of the late C. S. Butler, Esq., M.P., of 48, Princes-gate, S.W.

BOXER—JONES.—On September 29, at Great Torrington, Devon, Edwin S. Boxer, third son of Commander J. F. Boxer, R.N., to Mary Elizabeth, eldest daughter of Chas. R. Jones, M.D., of Torrington.

CANDLER—ROPER.—On September 25, at Hollingbourne, Kent, William John Candler, M.R.C.S., of St. Alban's, to Julia, eldest daughter of John, Roper, Esq., of Greenway Court, Hollingbourne.

HORNSBY—FOWLER.—On September 25, at Edgbaston, George H. Hornsby M.R.C.S., of Bromsgrove, to Ellen, eldest daughter of Edmund Fowler of Abberley, Edgbaston.

NORTON—ROSS.—On September 4, at Tobermory, Argyleshire, George Everitt Norton, M.R.C.S.E., of 29, Upper Baker-street, Regent's-park, London, to Jane Helen, third daughter of Hugh Ross, Esq., W.S., Sheriff Substitute of Argyleshire.

SCOTT—SYMONDS.—On August 16, at Onehunga, New Zealand, William George Scott, M.R.C.S., to Alithea Mary, third daughter of Captain J. Jermyn Symonds, Judge Native Land Court, and grand-daughter of Admiral Sir William Symonds, late Surveyor of the Navy, C.B., F.R.S.

DEATHS.

BARTHOLOMEW, EDITH ANNIE, widow of Charles Eugene Bartholomew, and third daughter of Arthur Brisley Rye, F.R.C.S., at Grassmont, Forest-hill, on September 20.

Bey, JOHN FORBES OGILVIE, M.D., of Norwood and Egypt, at Walmer, Kent, on September 21, aged 57.

DOIG, ANNETTE NINA, eldest daughter of Surgeon-Major Doig, A.M.D., at Benares, East Indies, on August 31, aged 1 year and 8 months.

EVERET, WILTON, Surgeon-Major A.M.D., at Chichester Barracks, on September 27, aged 43.

LANG, W. HENRY, M.B., M.R.C.S., at 41, Berners-street, W., on September 28, aged 59.

RITTERBRANDT, LOUIS ANTOINE, M.D., at 5, Percy-villas, Campden-hill, Kensington, on September 26, aged 72.

SMITH, LUCY ELIZABETH, wife of Surgeon-Major Henry Seymour Smith Civil Surgeon, Allahabad, at 25, Waltham-terrace, Blackrock, County Dublin, on September 27.

UNION AND PAROCHIAL MEDICAL SERVICE.

*. The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATION.

Southam Union.—Mr. Thomas Elkington has resigned the Priors Marston District; area 11,212; population 1494; salary £45 per annum.

APPOINTMENTS.

Carmarthen Union.—William Lewis Hughes, M.R.C.S. Eng., L.S.A. Lond., to the Carmarthen District and the Workhouse.

Williton Union.—Richard Francis Hay, M.R.C.S. Eng., L.S.A. Lond., to the Porlock District.

EXPERIMENTS WITH DIURETICS.—Dr. Maurel, a naval surgeon, communicated a paper to the Société de Thérapeutique (*Jour. de Thérap.*, September 10), giving an account of a number of careful experiments which he had performed upon healthy individuals in order to ascertain and compare the effects of various reputed diuretics. His general conclusion is that the practitioner can rely only on three of the diuretics among those which have been under investigation, viz., chlorate of potash, salicylate of soda, and digitalis, the first two even of these having but a feeble activity. The other medicinal substances reputed as diuretics—nitrate and acetate of potash, iodide of potassium, squill, and colchicum—are either devoid of action or produce effects of no importance. The reporter, commenting upon this conclusion, observes that he cannot agree with it, having no doubt that nitrate and acetate of potash and squill are energetic diuretics, from what he has observed when they have been employed in suitable cases. The indication for their employment is the point of importance. If, in place of experimenting upon healthy men, Dr. Maurel had given some of these diuretics, which he accuses of inertia, to subjects infiltrated with serosity, and having abundant collections of water (collections whence the circulation might largely draw to produce abundant diuresis), he would have been less positive in his conclusions, and would have admitted that these substances are excellent diuretics in certain cases of dropsy, when there are no hyperæmic or inflammatory lesions of the kidneys. The reporter terminates with a remark which is often lost sight of by those who are content to draw their conclusions solely from experiments on healthy men and animals. If, he observes, the study of medicinal agents, etc., on healthy men has its great value, it does not suffice for giving a complete measure of their therapeutical power. It is still essentially necessary that clinical observation should intervene in order to obtain a complete history of these substances.

YORKSHIRE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—The fourth annual meeting will be held on Thursday, October 16, at the Town Hall, Bradford. The programme includes, besides ordinary business, a visit to Frizinghall Sewage Works, and to the Fever Hospital, where a Ransom's disinfecting stove will be seen in operation. The dinner will take place at the Talbot Hotel at 6 p.m. Members who intend to be present at the dinner are requested to send in their names to Mr. Butterfield by October 13.

CHASSAIGNAC.—In an appreciative notice of the career and inventions of this great surgeon, the *Progrès Médical* observes that the fact of how little he was considered by his contemporaries is shown by the circumstance that he failed in seven successive *concours* for the chair of a professor, and in fact never entered the Faculty, and only gained admission into the Académie de Médecine in his sixty-first year in consequence of the remonstrances of the medical press. It is now plainly seen that the author of the "*Traité de Suppuration*," with its outcome of surgical drainage, and the inventor of *pansements par occlusion* and of *ecrasement lineaire*, ought to have occupied a very different rank in the surgical hierarchy to that which he attained.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

THE DENTAL HOSPITAL OF LONDON, LEICESTER-SQUARE, W.C.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—By a mischance the advertisement of this Hospital was headed "Medical School"; it should have been "London School of Dental Surgery." May I ask you kindly to insert this letter in your next issue.

I am, &c., S. FRANCIS KEN UNDERWOOD,
Dean of the School.

WHICH IS THE LEAST PAINFUL WAY OF KILLING ANIMALS WE USE FOR FOOD?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In addition to the remarks on this subject I published a few months ago, in which it was proposed to enclose the animals in an air-tight shed or room, and then gradually to let out the air at one end, while carbonic acid gas was flowing in at the other, I may now add that perhaps carbonic oxide gas might possibly be better, though without experiment it would be impossible to say which of the two is preferable. I take this suggestion about carbonic oxide gas from page 191 of the number of the *Medical Times and Gazette* for August 16, 1879, in which this gas is said by Dr. Packard to "kill in the most rapid and painless manner." He concludes, as the result of his experiments, that in ten minutes the body of an animal could, with certainty, be taken out quite dead. As he says nothing, that I see, about the nutritive quality for food of animals so killed, this point also would have to be investigated before it could be adopted in slaughter-houses; which, for the benefit of the health of our population, it is to be hoped will soon here be made public by law, as on the Continent. The building of any air-tight shed or room would require the assistance of a good engineer and be attended with much expense, and also require the support of those gentlemen who hold licences from the Government to make experiments on animals. In consequence, subscriptions would be necessary to give it a fair trial; I may therefore add that I should be ready to subscribe towards any such object should this mode of killing animals be preferred to the one in actual operation.

I am, &c., H. PRATER, M.D.

The Colony of Victoria.—The population of Victoria on June 30 last was estimated by the Government statist at 887,434—males 482,769, females 404,965.

Numbering the People.—One of the last proceedings of the Congress which expired in March was to pass an Act for taking a census of the population throughout the United States in June, 1880. This census is looked forward to with great interest.

Citizen, Minorities.—The Home Secretary has appointed Mr. Hunter Rodwell, Q.C., M.P., to act as arbitrator under the Artisans and Labourers' Dwellings Improvement Act, 1875, in the matter of schemes for the improvement of certain areas within the parish of St. George-the-Martyr, Southwark, and the Whitechapel district.

Suicides in France.—The statistics of suicide in France, just issued (and which do not differ materially from those of former years), show that nearly six thousand persons committed suicide last year throughout France, which gives a percentage about double that of England; and of these Paris had far more than her legitimate proportion. The Parisian suicides stand to those of London, in respect of numbers, as seven or eight to one, distributed according to age. The most suicidal time of life is still between twenty-one and forty. Four men destroy themselves to one woman. In proportion to the population, suicide is nearly twice as common in town as in the country. The ratio is higher among artisans than peasants; and amongst the liberally educated classes, who work with the head, it is quite double what it is amongst those who work with the hand.

Able-bodied Women Paupers.—The House-Committee of the West Bromwich Board of Guardians having carefully considered the question of keeping the able-bodied women in the workhouse at work, recommended the Board to erect a woman's workroom, and to appoint a labour mistress to keep all the able-bodied women constantly employed. The report was adopted.

Epidemic of Cholera in Japan.—The following is extracted from a letter written by the agent in Japan of the National Bible Society of Scotland:—"Yokohama, August 12.—Cholera is ravaging the country. Already 20,000 persons have died of it, showing an average over the whole country of 58 per cent. of those attacked. In some places, as at Ozaka, where it began, only two or three out of every hundred have recovered. Yokohama is now an infected port, and so are Nagasaki, Kobe, Ozaka, Nigata, etc., and no one can move either by land or sea without being put into quarantine for five or fifteen days, or being sent to hospital to be fumigated for similar periods."

Fostering Drunkenness.—During the hearing of a case of a proprietor of a public-house in the Maldon-road, Kentish Town, who was charged before Mr. De Rutzen with serving a drunken man with drink, the magistrate remarked that he had had about sixty cases before him that morning of drunkenness, many of which could be traced to the loose way in which public-houses were conducted; and he announced his determination, in order to put a stop to this state of things, to inflict heavy fines on publicans charged with such offences. He trusted that publicity would be given to the fact that he intended to deal severely with persons so offending. The defendant was fined £10.

Infectious Diseases in Lodging-houses.—At the Poulton County Court a Blackpool lodging-house keeper brought an action against a gentleman from Manchester to recover £50 damages alleged to have been sustained by the defendant bringing a fever case to the lodging-house in July last. Some months ago several of the defendant's children were suffering from what was thought to be "an over-heating of the blood," and the wife of the defendant went to Blackpool, taking with her a young boy, then in good health. At the end of the week a grown-up son went down and slept with the boy. Next morning the latter exhibited symptoms of having caught fever, the disease from which the children at home were suffering, and in five days he died. The defence was that the boy had no symptoms of fever when he came to the house, and that the complainant had not sustained any damage through the event. On the death of the boy the sanitary authority gave orders that the house be disinfected and kept closed for one month. Damages to the amount of £40 were given to the plaintiff.

The Importation of Wine in 1875.—It is well known that a duty of one shilling per gallon is levied upon all imported wines under 26° of strength, whilst the duty for wines over that strength is half-a-crown per gallon. But it is not generally known that by far the greater portion of the wine that comes in under the shilling duty is very much below the 26° limit. A return recently issued by Parliament on the respective strengths of wine imported in 1875 (on the motion of Mr. Cartwright), furnishes many interesting particulars on this point. The total amount of wine imported into this country from all sources (in cask) was 16,501,020 gallons of this, 3,997,085 gallons came in under the shilling duty, and nearly the whole of it—namely, 3,509,600 gallons—was at 20° and under. The import of stronger wine—that is, from 27° to 39° inclusive—amounted to very nearly three times this quantity, being 11,506,230 gallons. Comparing the amounts supplied by the different countries, it appears that nearly the whole of the weaker wine, of 20° and under—that is, 3,810,815 gallons—came from France; while, on the other hand, the large proportion of the stronger wine up to 39°—namely, 10,288,450 gallons—was sent from Spain and Portugal. In addition to the amount above stated as imported in cask, there were 1,928,285 gallons imported in bottle, making a grand total for that year of 18,429,305 gallons. From 40° to 42° inclusive the total was 784,659. "It is clear," says *Ridley's Circular*, "that the importation of the highly alcoholised wines of Spain and Portugal is not impeded by the half-crown duty."

Urban and Rural Sanitary Works.—The Sittingbourne Local Board has purchased ten acres of land within easy access of the town, at a cost of £2200, as a site for a public recreation-ground.—The Darlington Rural Sanitary Authority have had a long discussion on Mr. Marten's new Act, making burials a sanitary question, with the result that a committee has been appointed to put the Act in force at once.—The Sanitary Inspector of Glasgow has reported to the Town Council that 179 notices were issued to persons whose premises and businesses were incompatible with the requirements for the sale of milk, with the result that eighty-seven purveyors had given up the sale of milk altogether, thirteen had removed their dwellings from behind the shops, twenty-two had been granted an extension of time to carry out the orders, fourteen had complied with the requirements of the orders; and as to the remainder, the time allowed for improvement had not yet expired.—The scheme for the disposal of the sewage in the district of the Prestwich Local Board, about which negotiations have been progressing for many months, is now completed, and the works will be forthwith commenced. The scheme adopted is that known as "Wear's." Several sanitary authorities in the Manchester district are waiting the experience to be gained at Prestwich before they decide on any method of dealing with their sewage.

Hygienist.—A committee has been formed for the purpose of assisting and increasing efforts to supply open spaces for recreation purposes. It forms part of the general work of the Kyrle Society, which was founded for beautifying the homes of the poor and their surroundings, but it has proved so large and important a branch of the work that a special committee has been appointed for carrying it out. Any help from those who are interested in any particular locality will be thankfully received by the Honorary Secretary of Open Spaces Committee of Kyrle Society, Eland House, Hampstead-road.

COMMUNICATIONS have been received from—

Lieutenant-Colonel MARTIN PETRIE, London; Dr. SAWYER, Birmingham; THE REGISTRAR-GENERAL, Edinburgh; Dr. RAMSKILL, London; THE SECRETARY OF THE ROYAL VETERINARY COLLEGE; Dr. ED. I. SPARKS, Crewkerne; THE SECRETARY OF THE ENGLISH SPELLING REFORM ASSOCIATION; Dr. J. W. HONE, Dublin; Dr. DRUITT, London; Mr. FREDERICK TREVES, London Hospital; Mr. W. B. DALBY, London; Dr. DUPRÉ, London; Mr. D. COLQUHOUN, London; Mr. TALFOURD ELY, London; THE SECRETARY OF GUY'S HOSPITAL MEDICAL SCHOOL; Mr. F. HIRD, London; Mr. H. A. REEVES, London; Dr. H. PRATER, London; Mr. H. P. HOBSON, London; Dr. F. IRVING DE LISLE, London; Dr. S. COUPLAND, London; Dr. DUFFIN, London; Mr. W. E. PORTER, Lindfield; Mr. H. BECHER, London; Mr. S. SNELL, Sheffield; Dr. F. W. BARRY, Settle; Mr. F. K. UNDERWOOD, London; Professor G. SHAW, University College, London; Dr. R. CORY, London; Mr. W. T. GRANT, Birmingham; Mr. A. CLIFFORD ESKELL, London; Mr. J. LEWIS, Birmingham; Mr. B. S. WHARFSDALE, Birmingham; Dr. HENRY THOMPSON, London; Mr. J. CHATTO, London; Mr. T. M. STONE, London; Mr. W. ELLIOT; Mr. L. U. GILL; THE SECRETARY OF THE CHEMICAL SOCIETY.

BOOKS AND PAMPHLETS RECEIVED—

Real-Encyclopädie der Gesamten Heilkunde, edited by Dr. Albert Eulenburg—Des Examens de Dentistes—On Intermittent Broncho-Pneumonia, by H. Cripps Lawrence, L.R.C.P.—Observations of the Mechanical Treatment of the Hip-Joint, by Charles Fayette Taylor, M.D.—Emotional Prodigality, by Charles Fayette Taylor, M.D.—Some Uncured Cases of Insanity, by George H. Savage, M.D.—Om, Spetelska—Sanitary Institute of Great Britain Prospectus—The Veterinarian, edited by Professor Simonds—Clinical Lectures and Essays, by Sir James Paget, Bart.—Atlas of Histology, by Klein—Boy's Own Paper—The Sunday at Home—The Leisure Hour—House and Home—Second Special Report on Typhoid or Enteric Fever, by Surgeon-General C. A. Gordon M.D., C.B.—Explanatory Text of Mr. R. J. Godlee's Atlas of Human Anatomy.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Louisville Medical News—Nature—Boston Medical and Surgical Journal—Homœopathic Review—Philadelphia Medical Times—El Siglo Médico—L'Union Médicale d'Orient—The Medical Temperance Journal—Journal of Education—Centralblatt für Gynäkologie—Révue Médicale—The Home News for Australia—La Cronica Médica—The American Bookseller—St. Louis Courier of Medicine—The Vaccination Inquirer and Health Review.

APPOINTMENTS FOR THE WEEK.

October 4. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

6. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

7. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

8. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

9. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

10. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

CLINICAL SOCIETY, 8½ p.m. Report of the Committee on Dr. Douglas Powell's Case of Leprosy with Enlarged Glands. Dr. Dyce Duckworth, "A Case of Myxœdema." Dr. Ord, "Notes on Some Cases of Myxœdema." Dr. F. Taylor and Mr. Howse, "A Case of Empyema in which portions of ribs were excised."

QUEKETT MICROSCOPICAL CLUB (University College), 8 p.m. Meeting.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 27, 1879.

BIRTHS.

Births of Boys, 1247; Girls, 1231; Total, 2478.
Average of 10 corresponding years 1869-78, 2226.1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	605	588	1193
Average of the ten years 1869-78	660.4	630.0	1290.4
Average corrected to increased population ... ..	...	...	1381
Deaths of people aged 80 and upwards ... ..	...	...	29

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West	561359	...	10	4	2	3	...	3	1	6
North	751729	1	1	10	3	7	...	7	1	11
Central	334369	...	4	7	2	1	...	2	...	12
East	639111	...	4	15	3	5	1	7	...	20
South	967692	1	7	24	1	13	2	10	2	23
Total	3254260	2	26	60	11	29	3	29	4	72

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	29.80 in.
Mean temperature ... ..	...	...	...	...	...	53.1°
Highest point of thermometer ... ..	...	...	...	...	...	65.5°
Lowest point of thermometer ... ..	...	...	...	...	...	39.5°
Mean dew-point temperature ... ..	...	...	...	...	...	47.3°
General direction of wind ... ..	...	...	...	...	...	S.W.
Whole amount of rain in the week ... ..	...	...	...	...	...	1.46 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Sept. 27, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Sept. 27.	Deaths Registered during the week ending Sept. 27.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		Weekly Mean of Mean Daily Values.	In Inches.	In centimetres.
London	3620868	48.0	2478	1193	65.5	39.5	53.1	11.73	1.46	3.71
Brighton	105608	44.9	61	52	66.0	40.6	53.7	12.03	1.29	3.28
Portsmouth	131821	29.4	90	43	65.0	45.0	54.1	12.28	1.39	3.53
Norwich	85222	11.4	55	25	...	...	...	...	...	...
Plymouth	74293	53.3	55	26	64.2	42.0	53.0	11.67	1.06	2.69
Bristol	209947	47.2	137	68	...	...	...	...	...	...
Wolverhampton	75400	22.1	43	28	62.2	37.8	48.7	9.28	0.89	2.26
Birmingham	388384	46.3	276	137	...	...	...	...	...	...
Leicester	125622	39.3	88	39	62.8	37.5	49.9	9.94	1.17	2.97
Nottingham	169396	17.0	117	83	66.5	35.1	50.0	10.00	1.20	3.05
Liverpool	538338	103.3	377	267	...	...	...	...	...	...
Manchester	361819	84.3	260	179	...	...	...	...	...	...
Salford	177849	34.4	137	75	...	...	...	...	...	...
Oldham	111818	23.9	68	28	...	...	...	...	...	...
Bradford	191046	26.5	106	64	60.6	40.3	49.9	9.94	0.39	0.99
Leeds	311860	14.5	220	118	60.0	40.0	49.7	9.83	0.34	0.86
Sheffield	297138	15.1	203	92	65.0	37.0	50.9	10.50	0.75	1.90
Hull	146347	40.3	112	54	61.0	37.0	50.1	10.06	0.47	1.19
Sunderland	114575	41.4	89	43	66.0	43.0	53.4	11.89	0.28	0.71
Newcastle-on-Tyne	146948	27.4	117	49	...	...	...	...	...	...
Edinburgh	226075	53.9	133	59	59.3	38.0	50.0	10.00	0.50	1.27
Glasgow	578156	95.8	369	177	57.8	37.5	50.2	10.11	0.78	1.93
Dublin	314666	31.3	209	142	62.8	35.0	49.5	9.72	0.43	1.09
Total of 23 Towns in United Kingdom	8502896	38.6	5805	3041	66.5	35.0	51.1	10.62	0.83	2.11

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.80 in. The lowest reading was 29.32 in. on Tuesday evening, and the highest 30.17 in. on Friday morning.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

THOUGHTS ON EDUCATION, GENERAL AND MEDICAL.

BEING THE INTRODUCTORY ADDRESS
DELIVERED AT THE OPENING OF THE SESSION 1879-80,
AT THE WESTMINSTER HOSPITAL.

By AUGUST DUPRÉ, Ph.D., F.R.S.,
Lecturer on Chemistry and Toxicology at the Westminster Hospital.

MR. CHAIRMAN AND GENTLEMEN,—It is our usual custom at this Hospital to commence the new academical year by an introductory address, delivered by one of the teaching staff of the medical school.

This year I have been honoured by my colleagues in being selected for this duty, and while I cannot but be grateful for the mark of confidence thus given, I have yet accepted the charge very reluctantly, as I feel that for one, who is not himself a medical man, to attempt to give advice to students of medicine is a somewhat hazardous undertaking, not made lighter this year by the recollection—which must still be fresh in the minds of many—of Mr. Macnamara's eloquent address of last year. I have, however, accepted this task, falling upon me as one of your teachers, as one which I could not, consistently with my sense of duty, decline to undertake.

Before entering upon the subject proper of my discourse I have a pleasant duty to perform—one which, if anything can do so, reconciles me even to these annually recurring addresses. It is to welcome most heartily, in the name of my colleagues and myself, those older students who, having formerly pursued their studies at our school, honour us at least once a year with their presence. Let me assure such that we, their old teachers, continue to take an interest in their career, and that we are always glad to see them amongst us.

Turning now to those students at present studying at this hospital, or that are about to join us, let me give them a no less hearty welcome, and let me express to them the hope that when they, in their turn, become old students they may retain as pleasant a recollection of their stay here as those former students I see around me to-day, and that they too may honour us by their presence at future annual gatherings.

There is also one recent event which I cannot pass over in silence on this occasion. During the past year death has deprived us of one of the oldest members of our staff, viz., of our honorary surgeon, Charles Brooke. In him we have lost one of the brightest ornaments of our hospital and school; a genial, kindly man, and a deep philosopher. It will be long before the memory of his pleasant face and manner will die out amongst us. Mr. Brooke was a representative of a class of men, more common formerly, now, alas, becoming rarer and rarer, who in the dark middle ages helped to keep alive the sacred flame of science—men who were not merely physicians or surgeons, but men of science as well,—and if by my address this evening I can induce even one among my audience to follow such an example, I shall consider myself amply rewarded.

Having accepted the task for this day, I had next to consider how it could best be accomplished with profit to you and some credit, at least, to myself. Having weighed several more or less promising subjects in my mind, I have fixed upon one, which, while it has not, as far as I am aware, been touched upon by any of my more immediate predecessors, is yet one which I trust may prove interesting to my hearers, the question, namely, of Education in General, and Medical Education in Particular. I have chosen this subject, firstly, because I feel, and feel deeply, that our present endeavours to improve and extend education proceed more or less on a wrong basis; and, secondly, because as a German by birth and earlier education, and an Englishman by adoption and later education (for I do not consider education as finished at any time of our lives), I have some knowledge, however little that may be, of the methods of teaching prevalent among two of the best educated nations in the world.

I trust that in what I am about to say I may be pardoned if I refer repeatedly to my own personal experience, but I cannot emphasise my remarks equally well in any other way, and moreover the opinion I am constrained to express may then be seen to be all the more impartial.

My later boyhood fell into a time in which many of the best minds of Germany were enthusiastic in the cause of so-called technical as opposed to classical education, and these years were in consequence passed by me in schools in which technical education—that is, natural science, mathematics, mechanics, etc.—took precedence over classics. It was a time in which even leaders in science, like the late Baron Liebig, expressed their conviction that a new national life would commence for Germany, and that future generations would, in consequence of their increased knowledge of natural science, be intellectually superior to past generations brought up chiefly in the old classical schools.

Unfortunately, this bright vision has not been realised, and Germany is reverting more or less to the old style. Liebig himself confessed in after years that his earlier opinions had been erroneous. He stated that he frequently observed among his own students in chemistry, that although those coming from technical schools appeared at first, in all that related to natural science, as giants compared to those having received a chiefly classical education, yet that the latter in most cases not only soon made up their deficiencies in this respect, but in the end generally outstripped their technically educated rivals.

To come now to the actual subject of my discourse, what do I understand by education? In its widest and highest sense education means, primarily, the equal expansion of all the faculties of man, moral and intellectual. Unhappily, or happily perhaps, the times are past for most of us when men could spend their lives in calm mental contemplation, and the stern duties of our daily life claim most of our energies. Our education, then, should be such as to enable us most successfully to discharge the duties which fall to our share in the position of life in which it has pleased God to place us. From this point of view, the education of a people (I am speaking, of course, of the education of the male population solely) may be divided into two categories: firstly, the education of those whose work in after-life will be chiefly manual labour, and those whose work will be more or less intellectual.

About the former I need say nothing here this evening, and it only remains to be decided what is best for the latter—should it be a so-called technical or a classical education?

Education, up to a certain point at least (primary education), should be, strictly speaking, the cultivation of the intellect alone, altogether irrespective of the teaching of any special branch of learning. Very often, however, education is understood to mean the teaching of certain subjects to fit the recipient to follow a trade or profession. The first question, therefore, to be decided is, How can we best accomplish the former and, in my opinion, the paramount object of primary education?

Up to not many years ago the general answer would have been, "Give the boy a classical education." Now, however, the answer in many cases would be different, and an education in which natural science and mathematics play the chief part would be recommended instead. The old classical education finds itself opposed by science, or a so-called technical education. Which of these two opposing schools, then, is the right one? No more momentous question could possibly be raised, for the welfare of generations yet unborn depends upon the answer given. In England at the present day the advocates of a technical education are gaining ground; in Germany, as before stated, a similar battle has been fought for many years, and victory is there more or less with the classics, and I cannot but express a hope that a similar victory will be gained here. Not that I would for a moment deny the educational value of science-teaching; far from it, for I hold, and hold most strongly, that no education can be complete in which science has had no share. The merely classical scholar may possess a perfectly trained intellect—the instrument of thought is there; but thought itself necessarily moves in a, comparatively speaking, narrow compass. His life has been spent in the study of certain works of man, let it be granted some of the most perfect, yet how imperfect when contrasted with the perfect works of nature! Education, to be complete, should therefore include the study of both classics and science, and the point

now to be decided is, when the one is to end, the other to begin.

The first part of education, the training of the young intellect, should then, in my opinion, be chiefly classical; the exact nature of the second must be governed by the special trade, profession, etc., the recipient may intend to follow. If the object is merely to produce a well-trained intellect, the study of classics might be continued even up to manhood; but in the great majority of cases this cannot be done, as the loss of time involved would be too serious, and we must come to some compromise, and substitute science for the classics, even before the latter have accomplished for the student all that they may be capable of. If this time is wisely chosen, this substitution, far from being a disadvantage, is, on the contrary, rather an advantage, as the younger mind, though already fairly educated, is not yet fixed, and is thus the more capable of assimilating new knowledge, and of profiting by new methods of training.

It may fairly be asked what it is that in my opinion gives the advantage to the teaching of language over that of science in our primary education. It is chiefly this: Man's thoughts are governed by his language; we express our thoughts, we think, in words. An idea for which we have no words is to most of us impossible. A man whose whole vocabulary consists of, let us say, 1000 words will be limited in his intellectual range to thoughts expressible by means of these 1000 words; everything beyond would be to him a blank. His intellectual range will expand with his increasing knowledge of language in which to express his thoughts. Shakespeare, perhaps the most comprehensive intellect of modern times, has used, as is well known, a greater number of words in his various works than are found in the writings of any other Englishman. Goethe, the greatest modern German, holds a similarly commanding position in the literature of his country.

Inasmuch, then, as language is not only admirably adapted for the training of the intellect, but at the same time gives the command of words necessary for the better expression of our thoughts, it is so far superior to science as an instrument of primary education. There are, however, two advantages incident to scientific training which I cannot omit mentioning. In the study of natural science we are brought face to face with the immutable, to human power unalterable, laws of nature. Whatever our wishes or hopes, these laws fulfil themselves; we may direct, but we cannot alter. An opinion may have been formed, but if, on appeal to experiment, it is proved to be erroneous, it has to be abandoned; and nothing we can do will alter this. The true student of science is therefore ever ready not only to submit his opinion to the proof of experiment, but to abandon the same, without reserve, if the verdict goes against him. He thus learns to value his opinions only so far as they are true. In the next place, finding himself not unfrequently mistaken, he is always ready to allow that another's opinion, though opposed to his own, may be correct. Two of the most valuable lessons of life are thus learnt; absolute adherence to the truth, and a just appreciation of the opinions of others.

There is one other subject connected with primary education which I must mention; I do so with great diffidence, but it is of such paramount importance that I trust I may be forgiven for doing so. A scheme of education in which religion has no part is scarcely worthy of being called a national education. Unfortunately in our present scheme of school-board education religion hardly finds a place. This omission is certainly not caused by want of religious feeling in those that devised the Act, or those that carry it out; it is, on the contrary, due rather to its intensity, joined, however, to a certain—shall I call it fear of, or suspicion?—entertainment towards those belonging to a different denomination to ourselves. In this respect the State-supported schools of Germany might well be taken as examples. In these there is always religious instruction; but the faith of every boy is scrupulously respected, those of every denomination being allowed teachers of their own belief. Every parent knows that his religion will be respected in his boy, and none, or at least but very few, object to its being taught in public schools.

Let me give you my own experience. I was born at Mayence, and attended my first public school in that town. We were about twelve Protestant boys among more than 300 Catholics; but while these had their own religious instruction, which we were never asked to attend, a Protestant

clergyman attended several times weekly for our benefit. Later I entered a public school at the university town of Giessen; here the Protestant element predominated as much as the Catholic had previously done, and the general religious instruction was Protestant (regard being paid even to slight differences existing within that pale), while the few Catholic boys had lessons from their own pastor. Only when such is the case here can it be said that our national education rests on a sound basis; and I may be permitted to express a hope that a time will come in which, without any falling off in the fervour of our religious convictions, we may be more tolerant to those of a different creed to ourselves.

Having thus completed the subject of primary education, let me now turn again to those students who have recently joined, or are about to join us, and are beginning their secondary or professional education.

Assuming, then, that you have arrived, say, at the age of eighteen, with an education similar to that just defined, how are you to proceed in order to qualify yourselves to follow the medical profession? Your training, so far, while it has developed your intellect, has imparted little or no knowledge directly useful in the practice of the profession chosen, and all such has yet to be acquired. The subjects to be learned are wide and various, and unless the best use is made of your time good results cannot be expected.

Unfortunately, in arranging the order of study, we are not at liberty to choose what we might consider the best, inasmuch as the various examining bodies require a certain routine of study. You will find the necessary order shortly laid down by our Dean on page 10 of the yearly report. You will find that at the end of your second year you will have to pass a primary examination, and in order to be allowed to do this you will have to attend to the following subjects:—Anatomy, dissection, physiology, chemistry, demonstrations in the post-mortem room, practical physiology and histology, surgical out-patients practice, and instruction in the examination of patients, twice a week each.

If I, to a great extent an outsider, might be permitted to suggest an alteration in the foregoing order of study, I would strongly advise that during the first year or two all your attention should be devoted to the acquisition of the more strictly scientific portion of your professional education, leaving the practical application, such as the examination of patients, etc., etc., to a future time. Your chief subjects of study would then be anatomy, dissection, physiology, practical physiology and histology, botany, chemistry, and natural philosophy. The latter science I should like to see occupying a much more important position in your studies than unhappily it will occupy, owing to the fact that a knowledge of it is not required by the various licensing bodies. How important a part the laws of physics play in animal life the following few illustrations may show. All manifestations of life, as far as they are accessible to our research, are governed by either physical or chemical laws, thus: we move our limbs in accordance with simple mechanical laws such as those of the lever and pendulum; our eyes are optical, our ears and the organs of voice acoustical instruments; the circulation of our blood follows the law of hydrostatics; we lose or gain temperature in accordance with the laws of heat; the absorption and distribution of food and medicines are governed by the laws of diffusion, and endosmosis and exosmosis and dialysis, etc., etc.

Chemical laws play a no less important part: thus respiration and its concomitant production of heat, digestion, the building up and disintegration of the materials forming the various tissues and organs, the action of medicines, are all to a greater or lesser degree chemical phenomena.

I hope it will not be understood as my opinion that a knowledge of chemistry and physics would constitute a physician. Far from it. It is possible for a man to be a good physician even though possessing no knowledge of either chemistry or natural philosophy, but a knowledge of these sciences cannot fail to be of the utmost value to him. They show him in many cases the reason for his treatment, which otherwise is entirely empirical; and they alone will in time render a science of medicine possible.

If, then, we exclude from your work of the first year or two attention in the out-patients or post-mortem rooms the remaining portion will be, as before mentioned, essentially scientific, and, besides imparting to you a knowledge of the utmost value to you in your future professional studies and life, they supplement in the most perfect manner the purely

classical education I have assumed you to possess, and we may then consider your general education to be complete.

All these subjects, as may be readily understood, might be studied in schools or colleges unconnected with any hospital, and our hospital schools might then be devoted to, what I may term, the more strictly medical and surgical part of your education. In thus separating, more completely than is done at present, the scientific from the practical, the student will, on the one hand, gain time for the more minute study of the natural sciences to the great advantage of his intellectual training; and on the other, when once he begins his real professional work, his time is no longer taken up with the study of what are, after all, auxiliary subjects. The establishment of such separate scientific colleges would have, no doubt, considerable advantages. The teaching of several of these sciences requires constantly increasing educational appliances, and these the larger institutions could always readily command. Not that I look upon this as so great an advantage as some seem to consider it, for I believe that the more direct and frequent contact between the teacher and the student, which is possible in a small institution, will, if taken advantage of, more than compensate for any deficiencies in educational appliances that may exist. There would, however, be one advantage which, to my mind, is in itself sufficient to make the establishment of these science-colleges desirable. These colleges would no doubt be attended by students of other professions besides that of medicine, and the medical student, not being limited in his daily companionship to students of his own profession only, could not fail to have his mind enlarged and improved by the contact. Such an educational system would correspond in great measure to the system in vogue at the present time in the various German universities. London, however, with its wonderful social, political, commercial, and scientific life, in great measure compensates for the absence of this kind of intellectual diversity among its purely medical students. Where could we find a place better calculated to call forth our best energies than this Broad Sanctuary at Westminster, within a stone's-throw of St. Stephen's, the very heart of our mighty empire, and beneath the shadow of that venerable Abbey within which rest so many of its greatest sons? Who can look day after day at this old and glorious pile, with its hallowed memories of the past, and not be the better for it? Few can hope to find rest there; but we all may strive to do our best, and youth is the time for high hopes and ambitions, and, even though in later life you may find the visions of your youth unfulfilled, you will be all the better for having set before you early in life a high and noble purpose.

But let us return to the question of the German universities. In these, not many years ago, what I have called the more strictly professional and practical part was to a great extent neglected in favour of the theoretical, representing what may be looked upon as the opposite of our chiefly practical hospital education, and, while we here are gradually devoting more and more time to the theoretical, they are, on their part, endeavouring to do more justice to the practical. The perfection of medical education will be reached when both these main factors receive their due share of attention, though I, as a non-medical man, will not presume to say what the exact share of each should be. I may, however, be permitted to give you what I have always considered to be the result of our more essentially practical education, as hitherto given at the various London schools, contrasted with the more strictly scientific university education.

As I have previously stated, the student who has received a classical education, though at first far behind his technically educated rival in his knowledge of natural science, ultimately passes him in the race; in like manner it will, I think, be found that though our practically educated medical student will, no doubt, during the first years of his professional career, be a better practitioner than one whose studies were chiefly theoretical, he will not retain that advantage for any great length of time.

Having thus brought you to the end of your second year or so, by which time you will have finished the scientific portion of your training, in regard to which I could, without too great a presumption on my part, venture to give you some information and advice, you must forgive me for not venturing to lead you any further beyond, perhaps, the mere repetition of what I have already pointed out, that the re-

maining years of your studies will have to be devoted to the more strictly professional, and from many points of view the most important, portion of your studies. You cannot do better than follow the instruction and advice of our admirable medical and surgical staff, whose lectures and clinical instruction you will have the benefit of attending.

You will have great opportunities of learning the practical part of your profession—far greater, probably, than you could find in a more numerous attended school. We treat at this Hospital more than 1700 in and 16,000 out-patients per year, and every one of you who is willing to work can have no difficulty in gaining practical experience. Make the best of your time, and you will have full reason to be thankful for having joined us.

Before concluding I must say a few words about a subject which will greatly occupy your thoughts during the next few years; it is that of examinations. Before you are permitted to practise your profession you will have to pass various examinations, and your studies must of course enable you to do so. Do not, however, subordinate your studies entirely to this necessity; do not ask yourselves at each step "is it, or is it not necessary, in order to enable us to pass such and such an examination?" Study your subjects thoroughly and with a view to what is, or at all events should be, the main object of your studies, namely, the acquisition of the knowledge and skill necessary for the treatment of the various diseases and accidents to which humanity is liable. If you have done so conscientiously to the best of your ability, you will find the mere passing of an examination a, comparatively speaking, easy matter.

At present there are in Great Britain and Ireland numerous examining bodies or corporations having the power of conferring the licence to practise on all such as have successfully passed through certain examinations. Each of them has, to a great extent, the power of regulating the subjects for examination. In consequence of this there exists no common standard, which everyone has to attain who wishes to practise either as physician or surgeon, etc. Endeavours have been, and continue to be, made to improve this state of things, but hitherto unsuccessfully. Under these circumstances it may not be uninteresting to point out what has been accomplished in this respect in Germany.

I hold in my hand the rules and regulations in regard to the examinations which everyone has to undergo who wishes to practise under the title of physician, surgeon, dentist, etc., within the limits of the German Empire. The federal authority, however, has reserved to itself the right to exempt from this examination persons of recognised scientific attainments or merit. The first thing that strikes us on reading the title-page is the fact that the rules, etc., relate to what is termed the *trade* (not profession) of medicine. This, at first startling, announcement has, however, a simple explanation. When, after the year 1866, the various German States were united, certain things were placed under the charge of the central authority, while others were left to be governed by the separate States. Among the former were all matters relating to trades; the latter included all professions. The regulation of everything relating to medicine by the central authority was, however, thought to be of such paramount importance that it was decided to include it among the trades, notwithstanding the apparent slur implied. In all likelihood this will not long continue, and the practice of medicine will again be classed as a profession, though still controlled by federal authority. Next, the great variety of licences granted, which relate not only to physicians and surgeons, but also to dentists, veterinary surgeons, midwives, chiropodists, and even surgical instrument makers, and various others, strikes us as remarkable. It would occupy too much time if I were to go through the whole of the regulations, but a short *resumé* will be useful as showing to some extent the nature of the education required. The candidate, when entering his name for examination, is required to produce the following certificates:—

1. That he has attended a gymnasium—that is, that he has received a classical education—and that he has successfully passed the final examination.
2. That he has spent four years at a university.
3. That he has passed at one or other of the German universities the primary scientific examination. This he must have done not earlier than at the end of his fourth, nor later than the end of his seventh session.
4. That he has attended during at least two sessions

surgical and medical practice at a hospital, and has by himself attended at least four labours.

5. That he has the requisite skill in vaccination.

The examination itself is ranged under the following heads:—

1. Physiological and pathological anatomy.

2. Surgery and ophthalmic surgery.

3. Medicine.

4. Midwifery.

5. A public *vivâ voce* examination, in which the candidate has to give public evidence of his general medical knowledge, as, for example, in general and special pathology, therapeutics, surgery, midwifery, pharmacology, and hygiene.

This examination, as before stated, has to be passed by everyone who wishes to practise as either physician or surgeon, and no difference whatever is made between candidates for either of these branches.

The various States constituting the German Empire have thus only one scheme of examination, but there are still many examining boards, inasmuch as the medical faculty of every university may constitute such. In consequence of this it has been found that, in spite of the rules laid down for all alike, greater differences than are thought desirable exist between candidates that have passed at the various universities, as in some of these the examiners seem given to undue leniency. To remedy this, delegates will probably be appointed by the central authority to attend at all the examinations.

I must, however, now bring my remarks to a close, as I have already, I fear, somewhat overtaxed your patience.

You have chosen a noble profession,—none could be more noble. It is one which should claim your best energies, and in which all your faculties, intellectual and moral, may find full scope, but in order to succeed you must put your heart into your work. The next few years will be your time for sowing, in order that you may reap a full harvest hereafter. Do not let them pass by unheeded; do not look upon the passing of an examination as the end and aim of your studies. Remember that the acquisition of the knowledge and skill necessary for the alleviation of human suffering, not the passing of an examination, should be your goal.

The medical and clerical professions have often been compared with regard to the work which has to be done by each, but there is another feature which they have or should have in common, to my mind of even greater significance; it is the necessity which true disciples of either calling are under of possessing a wide intellectual culture, and a sympathetic heart; their culture should be such as to command the respect and regard of the best and highest; their qualities of heart should enable them to gain the confidence of the lowest.

If we examine the muster-roll of our great men of science we shall find no professions so fully represented as the clerical and medical. But when you have done your best, when you find yourselves successful in your career and feel confidence in your power and skill, remember the noble words which Goethe puts into the mouth of Faust in answer to the acclamations of an admiring multitude. I cannot translate them, but I hope those of my audience who do not know German will learn it in order to understand them:—

“Vor jenem droben steht gebückt,
Der helfen lehrt und Hülfe schickt.”

REMOVAL OF THE SMELL OF MUSK.—This, which is so abiding, and to some so disagreeable, may be removed from the hands or utensils by applying a paste formed of pulverised ergot. This property of smut-rye was accidentally discovered by Blitz when preparing a compound of the above ingredients.—*Zeits. d'Æster. Apoth.-Ver.*

THE HOSPITALS AND HOSPICES OF PARIS.—The 9310 beds of the hospitals, and the 9940 of the hospices of Paris, are quite insufficient for the wants of the capital. In 1859 it was calculated that there was a hospital bed per 164 inhabitants, and there is now only a bed per 231 inhabitants. There are required in the hospitals and hospices 6000 beds. The hospitals and hospices which exist are also in such a state that the Assistance Publique has estimated that the large sum of 16,462,470 fr. is required for repairs and alterations of the various establishments.—*Union Méd.*, September 30.

ORIGINAL LECTURES.

ABSTRACT OF LECTURES ON THE PLAGUE EPIDEMIC IN THE YEAR 1878-79, IN ASTRACHAN,

*Delivered before the Berlin Medical Society on June 18
and July 2, 1879,*

By PROFESSOR HIRSCH, of Berlin,
Member of the late German Plague Commission.

(Concluded from page 361.)

THE question now arises, whether this outbreak of disease was to be considered as a small epidemic of the real plague, for which form the name of *peste fruste* has lately been in use by French physicians. Several of the Astrachan physicians had adopted that view of the nature of the disease; they spoke of a *pestis nostras*; and it is not to be denied that they were justified in doing so by the form the disease had taken. One principal fact, however, which is decidedly opposed to that view, is that the disease had in every case been of such a mild character there, though the epidemic at Rescht, the supposed place of origin of it in Astrachan, had been murderous. Another fact opposed to that view was that the disease was not at all infectious. One would entangle oneself in inextricable confusion by supposing that an infective poison had been brought from Rescht to Astrachan, had caused there a fresh outbreak of 150 cases, and that none of these cases had caused further infection. But even granting that a slight epidemic of plague had visited Astrachan in 1877, the question is still an open one, whether the outbreak of plague in the autumn of 1878 at Wetljanka was in a causal connexion with that Astrachan disease. If one were inclined to state such a connexion between the two epidemics, it would be necessary either to suppose that the infective poison had been latent in Astrachan during the whole year, and had then been brought to Wetljanka (for there were no such slight cases of plague in that place during 1877); or to prove that the disease had reigned as early as 1878 in Astrachan or in the neighbourhood of that town. It would be impossible to raise a serious objection to the first supposition, but the proof required for the second cannot be furnished. It is true that there had been a rumour in Astrachan that the above-mentioned bubonic disease had continued to occur there in single cases from the year 1877 till the most recent date; but there were no decided facts observable. In one case, which came to my personal knowledge, I found a small atheroma in the nuchal region of the patient; in another case, which at the time of our arrival at Astrachan had caused great sensation and alarm, a member of the Austrian Commission found a simple venereal bubo. Another objection occurred to my mind concerning the dependence of the plague at Wetljanka on the Astrachan epidemic, namely, the consideration that the whole neighbourhood of the last-named city had been entirely spared by the disease; and that only one place, 250 versts distant from Astrachan, had been attacked, although many other villages had much closer and freer intercourse with Astrachan than Wetljanka, and showed at least equally favourable conditions for the development of the disease. Assuming the connexion of those two epidemics, it would still be very surprising why an infective poison, which had always exhibited in 1877 at Astrachan such mild effects, could have caused such a murderous epidemic at Wetljanka in 1878, although not the slightest reason for such a transformation could be afforded by local conditions, and when the disease at Astrachan would have found a soil at least as favourable for development as at Wetljanka. Finally, I have to mention another argument which has been adduced in favour of a direct connexion between the two epidemics: I mean the assertion made to us on our arrival at Wetljanka, that the first case of plague had occurred there in a woman, who had gone to Astrachan and had returned ill from plague, and therefore must have caught the disease there. Careful inquiry about that case has shown that this woman fell ill as early as

the third day after her departure from Wetljanka, and that she had become infected, without any doubt, not on the journey, but before leaving home. Further, amongst all persons with whom she had come in contact during her stay at Astrachan and at Vorpost, situated on the opposite side of the river, no case of the disease had occurred. Lastly, the above-named assertion proved to be erroneous itself, because fatal cases of plague had been observed at Wetljanka even before this woman was taken ill.

In spite of all those scruples, in spite of my conviction—founded on an unbiassed examination of the facts—that the plague of Wetljanka has been a single event standing quite alone, I should be forced to search for evidence of the transportation of the disease from Astrachan to that village if there were no other data showing another source of the plague in Wetljanka.

One of the most trustworthy witnesses of that epidemic was the worthy curate of the village, who, in the fidelity with which he visited the sick and the dying, himself fell a victim to the disease. In the bequest of that man several papers have been found which are proofs of an uncommon degree of education, and contain at the same time very interesting notes on the history of the epidemic, with a brief but pregnant description of the nature of the disease. Among those papers, for the admission to which I am indebted to the kindness of the Russian Commissary, Professor Eichwald, one was found, the tenor of which bears the stamp of true conviction to such a degree that it may be considered as one of the most important documents concerning that epidemic. After a brief but pregnant description of the symptoms of the disease and of the bad behaviour shown by the surgeons (*Feldscherer*) during the epidemic, he says:—"This dire disease" (no special name is given to it) "has been brought to us by the Cossacks from the war." That view has been almost generally accepted not only by the population of Wetljanka, but also in the surrounding district. In the same paper the curate mentions a legend which was told, as he says, by the women of Wetljanka, but which he had probably invented himself, as it is very similar to a legend dating from the plague of Milan in 1630. It runs thus:—An old man, Charitonow by name, coming from Wetljanka to Nikolskoi, met another man, who asked him whether he should like to have gold and silver. As he answered "Yes," he was conducted by him to a court, where he found a large treasure, with which he filled his pockets. When he asked his benefactor at parting what he had to pay for his gift, the latter said, "Thou askest too late; thou shalt pay for these goods with thine own members and those of thy children." The full meaning of that legend will be clear to you, gentlemen, from the following facts.

The statement that the plague had been brought from the seat of war to Wetljanka by the Cossacks can be founded only on the supposition that the Russian troops had come in contact there with persons or goods infected with the plague. As a matter of fact, it has been stated by different authorities that cases of plague occurred in the Russo-Caucasian army, and this assertion was confirmed partly by the fact that towards the end of 1877, as the Turkish delegate agreed, Turkish troops had been moved from Hilleh to Kars, where they arrived in February, 1878. But those troops, as our colleague (a very good observer, and quite a trustworthy man) declared, came from a country quite free from plague. They did not reach Bagdad, where the disease reigned at the time; they were in quarantine at Kerbelah during a fortnight at his express wish; and they arrived at Kars in a perfectly good hygienic condition. At the same time this delegate declared that in no instance had plague been observed in the Turkish army; and, as he rightly observed, such an event could not have passed unnoticed. According to my own conviction, there was no plague amongst the Russian troops either. It is true that several Russian field-surgeons reported on the occurrence of buboes during the course of petechial typhus, at that time exceedingly prevalent among the Russian troops; but in all those cases which came to my knowledge those buboes were observed only in the later periods of the disease, and followed processes of local mortification of the tissues. Moreover, I believe the same argument, which tells against the occurrence of plague in the Turkish army, will hold for the Russian army; such an event could not have been silenced. It is most improbable that the Cossacks going from the district of Astrachan to the seat of war should have suffered

from plague, and brought the disease to Wetljanka. The mortality of that portion of the Russian army has been estimated at a very low rate. The Cossacks were examined thoroughly in respect of their state of health before being sent home, and there is not one fact to show that a single one of them had returned ill to Wetljanka.

If, nevertheless, any stress is laid (as it seems to me, justly) upon the assertion that the plague has been introduced by the Cossacks to Wetljanka—a supposition which is supported also by the fact that the outbreak of the disease occurred along with the arrival of the Cossacks, or with that of the effects which they brought or sent home from the seat of war,—there is only one supposition left, viz., that the infective poison was introduced not by infected persons, but by infected effects, into Wetljanka. This supposition is supported also by the conviction which the curate had expressed upon the origin of the disease, and which was also accepted by many of the inhabitants of the village. The same belief seems to have been the cause of the above-mentioned legend; it was the plain expression of the avarice of the old man Charitonow. He was the first who succumbed to the disease, and of his family several fell victims to the disease in the beginning of the epidemic. As the curate of Prischib told us, his colleague came to him over from Wetljanka in the commencement of December to confess to him. On that occasion he confirmed the view that the disease had been brought in by the Cossacks, and that, as he added, by infected goods, which were amongst the booty of war they had brought.

Official inquiries which were held in respect of that evidence gave no distinct result, because, as will be easily understood, the inhabitants of Wetljanka had an interest in being silent on the extent of the booty acquired by the Cossacks. There can, however, be no doubt that clothes, shawls, etc., found their way from Armenia to Wetljanka. We received an interesting account concerning that fact from the curate of Prischib. A few days after the visit of his colleague from Wetljanka, his sacristan told him that he had found in the church behind the altar a bundle of clothes, which had been deposited there probably by a pious donor as a votive offering. The curate opened the bundle cautiously, and found a silk dress of dark red, a colour totally unknown in that country. He remembered the fact he had learnt from Wetljanka, and immediately caused the dress to be burnt. Further inquiries showed that a girl, who had been called to Wetljanka to say prayers for a patient, but who had been there only twenty-four hours in a house absolutely free from plague, and had not seen any patients suffering from plague, had received the above-named dress as a present, and had brought it to Prischib. Further, it was stated that this girl and two other praying sisters, who went with her to Wetljanka, fell ill with plague the fourth day after they had returned; and that just on the very day they became ill, a servant who had not gone out of Prischib, nor been in communication with patients suffering from plague, caught the disease herself. Lastly, the mother of the first-named girl confessed that she had dedicated the dress brought home by her daughter to the Holy Mother, and had deposited it behind the altar.

This seems to me to be a striking instance of spread of the plague by infected effects. The same mode of transporting the disease would perhaps explain also its outbreak in Wetljanka, on the assumption that infected goods brought from Persia or Mesopotamia to Armenia had been left there in the form of parcels—perhaps in a shop or a bazaar at Kars, Erzeroum, or some other town,—and fell along with other booty into the hands of Cossacks, who sent or brought them home without opening the parcels. Such a hypothesis would give a sufficient explanation of the fact that the plague has shown itself only in Wetljanka, and not in other Russian districts, where numerous articles of booty arrived also without any doubt.

Allow me, gentlemen, to mention another very striking instance of infection with plague by means of effects. It is the more important because the event occurred under our own observation, and is well defined. It concerns the last case of plague observed at Wetljanka. The case was that of a child ten years old. In the house of his parents, a box filled with clothes had been deposited, which came from a house where all the inhabitants had died of plague about two months before. The child opened the box, which till then had been left untouched and should have then been delivered up to be burnt, took away a piece of clothing, and

amused herself with it. Four days afterwards the child showed the first symptoms of the disease. If that box had been transported to another place, and been opened there, and had the other conditions been favourable to the development of the disease, a repetition of the tragedy of Wetljanka would not have been at all improbable. We may assume that such an event perhaps really happened between Mesopotamia and Wetljanka by the medium of the Cossacks.

I do not deny, gentlemen, that many objections could be raised against the hypothesis now mentioned of the origin of the disease at Wetljanka. We have again to deal with the same difficulty respecting trustworthy evidence on the origin of the disease, as in many of the former plague epidemics—even in epidemics where the attention of the observers was directed from the first to the point in question; although our own inquiry on the origin was begun at a time when several months had elapsed from the first appearance of the disease, and exact statements concerning it were entirely wanting.

It is difficult to recognise a distinct influence of the weather on the course and the end of the epidemic. It occurred at a time when severe cold set in after a longer period of mild and humid weather. Whether that change put an end to the disease, or whether it reached its natural end by exhaustion of the poison, I cannot decide. Neither were there any distinct influences of the soil on the development of the disease to be observed: that has not been the case, as far as I can judge from the local conditions.

I come now to the last point in my report, that is, a short description of the measures which have been taken for restraining or combating the spreading of the disease. In the commencement of my report I drew your attention to the very defective condition of the medical administration of the district of Astrachan, and to the circumstance that the Imperial Government did not become acquainted with the events at Wetljanka until the epidemic was at its height. A short visit of the surgeon-in-chief of the Cossack regiments was all that had been done. He sent a physician to Wetljanka at the end of November, who died from plague at the beginning of December. Then a second physician followed, who succumbed on December 18; and a third, who fell a victim to the plague at the beginning of January.

Although the activity and courage of those men are highly to be praised, it must be confessed that they were not at all clear as to the diagnosis of the disease. At first it was regarded as a malarial fever with buboes; then as malignant typhus; and at last even as croupous pneumonia. It was on December 18 only that a somewhat more detailed inspection followed at the order of the Governor, who had returned in the meantime from St. Petersburg to Astrachan. The surgeon-in-chief of the Cossacks and the first medical officer of the government were sent to Wetljanka, charged with arriving at a definite opinion on the nature of the disease and with ordering the measures that might be considered necessary. The disease was then declared to be "plague-like," a cordon was drawn around the place, and all communication with other localities was prohibited. At the beginning of January a general cordon was drawn around the whole district of the government that had become infected, and quarantine was established at the northern and southern extremities of it on both sides of the river.

There was no necessity for further measures of sanitary policy within the infected localities, and especially at Wetljanka: they were enforced by the inhabitants of the place themselves in a manner which was efficacious, but at the same time most barbarous. When they were convinced of the spread of the disease by infection, the houses where cases of the disease were observed were closed without delay, and the unfortunate inhabitants left to their fate; and any person who complained of bodily illness, especially of headache, was led to such a pest-house, so that there can be little doubt that many of them became infected there only. There was no idea of nursing the patients; only some drunkards, who saw in drunkenness by brandy the only preservative against infection, acted as nurses. The burying of the dead was neglected in the same manner, because the fear of entering the houses was universal. All social, even domestic, bands were dissolved, and scenes occurred which recall the gloomiest pictures of the pest-epidemics of the Middle Ages. I shall mention here only one fact, which I have learnt from a girl, twenty years old, who was still suffering at the time of my visit from a suppurating bubo

in the inguinal region. She had lived at the time of the Wetljanka epidemic in the house of a parent, and was sent without delay to a plague-house because she complained of headache. There she found seven persons suffering from plague. Very soon afterwards she was herself taken ill, and when she regained consciousness some days later she found herself lying between seven corpses. In the meantime severe cold had appeared; she became chilled by the frost, the windows being broken; and so she snatched up what she found lying there of clothes and bedding, only when both her feet had become frozen. At last a man was persuaded by her moaning to take her away from the house. One of the most tragical facts came to pass in the family of the worthy curate already mentioned. When he had succumbed to the plague in the middle of December, nobody was found to bury him; so that his wife (at the time far advanced in pregnancy) and his sister were compelled to carry away the corpse, to dig a grave in the deeply frozen ground, and to bury the body. Some days afterwards both persons fell ill, and died very soon from plague. The same cruel plans were adopted in the other places where cases of plague occurred. The dwellings of the patients were closed without further notice, and the inhabitants left to their fate. The places which were spared by the disease also adopted some sanitary precautions: they shut themselves up entirely against the whole neighbourhood; and many very cruel scenes also occurred there. There was no official supervision of those measures. The inactivity of the Russian local boards is therefore doubly to be blamed, because not only did they not do anything for themselves, but they permitted those injustices without taking any notice whatever.

The Russian Government showed real activity only when the neighbouring regions became alarmed by the events on the Volga, and asked the Government to allow scientific experts to enter the infected districts, and to obtain information at the places where the events had come to pass. At that time (in the beginning of February) Count Loris Melikoff was sent to Astrachan as Governor-General with imperial powers; and from that date a real sanitary administration began. His activity was not restricted to the perfection of the cordons and quarantines, and to the regulation of the conditions of life, cleansing, etc., of the infected places; but he directed his attention to the whole government by causing the streets and courts to be cleansed everywhere; the fairs to be superintended; and an ample provision of disinfecting materials to be stored up. Count Melikoff deserves high praise for the wise and energetic solution of his great task.

The dispositions for quarantine were very imperfect, as may be easily conceived, because they were established in great haste. The quarantined persons lived together in very narrow rooms. There was no real seclusion possible of the various persons who entered on different days; and there were possibilities of communication everywhere, so that great evils might have shown themselves in those institutions if the disease had still been in force.

Before concluding my remarks, I shall discuss in a few words the question whether the disease can be regarded as completely at an end, considering the manner of its arrest in January last. If what has been asserted is true—that the plague at Wetljanka was connected with the slight form of bubonic disease at Astrachan, and some cases of that nature have occurred there quite recently,—then we have undoubtedly to fear a fresh severe outbreak of plague, sooner or later. And even in the case (which seems to me more probable) that the disease has been brought directly from Armenia to Wetljanka, a fresh outbreak of the disease is still possible from germs which have become latent. Then the question still remains, as to what we have to expect or to fear from a further development of plague in the time to come. If the Russian Government has taken a lesson from the severe sacrifice it had to undergo from that disease, and if the measures of supervision which have been ordered in the infected districts are carried out with energy and success, I believe there will be no danger of a further propagation, should the disease again show itself in that country. Propagation into more populated districts, provided with freer means of communication, especially with railways—for instance, the extension of the disease into Zaritzin, the centre of the Volga steamboat navigation, and the railways of South-eastern Russia—would prove dangerous to the whole Russian Empire, as well as to other countries of Europe. The principal task of a public sanitary administration must

lie, according to my conviction, in a strict supervision of the places which are menaced by the plague and in a well-arranged isolation of the first centres of the disease. If we should have learnt nothing more from that small plague-epidemic than to estimate sufficiently the value of such isolation of infected localities for avoiding further propagation, then, gentlemen, the victims demanded by the disease have not fallen in vain.

ORIGINAL COMMUNICATIONS.

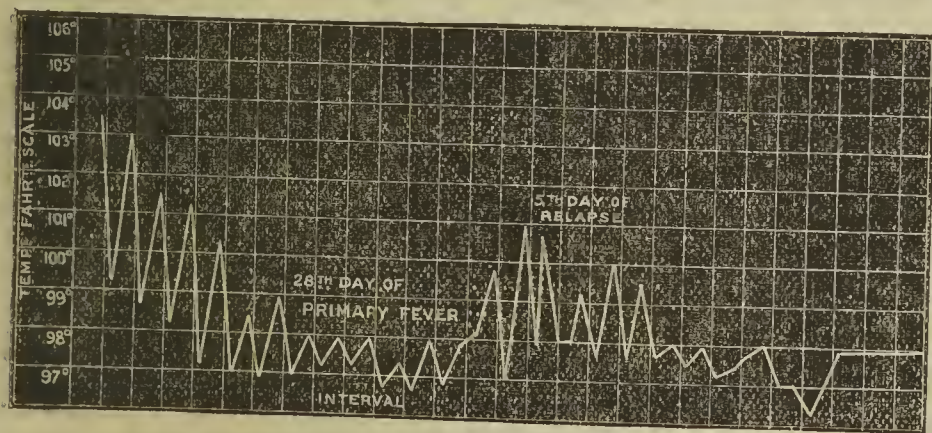
ON THE TEMPERATURE IN RELAPSE OF TYPHOID FEVER.

By J. PEARSON IRVINE, B.Sc., M.D., F.R.C.P. Lond.,
Assistant-Physician to Charing-cross Hospital, etc.

(Continued from page 154.)

The following cases help to complete the series I have had the honour to record in this journal. They illustrate difficulties and are instances of further variety.

Case 29.—A youth, aged seventeen, was admitted into Charing-cross Hospital in August, 1878. He was suffering from a moderately severe attack of typhoid, which ended on the twenty-eighth day. He had occasional diarrhoea during the last week of the attack, but convalescence commenced very favourably, and for four days the temperature was subnormal. Then without apparent reason it began to rise, and though it never reached any great height, its course led to the suspicion of a relapse. On the first morning the temperature was 96.6° Fahr., and on the third evening only 99.6°. The bowels were constipated. On the fourth and fifth evenings the temperature was 101° Fahr., and typhoid stools were passed. The fever had been irregular to this time, and the patient appeared very ill. Deep daily remissions had occurred, and were met with on subsequent days, though the temperature went down from the fifth day and the attack was at end about the tenth day. The temperature was afterwards very irregular, and, though not high, fluctuated as if some septicæmic condition had been set up. Possibly a second relapse occurred, modified by the lesions of previous attacks, and in this respect as well as in the brevity of the relapse, whose chart is engraved, the case is of interest. The patient recovered after a very tedious illness.



CASE 29: RELAPSE OF TYPHOID (a youth, aged seventeen).—Admitted during primary attack, which lasted twenty-eight days. Relapse set in after four days' apyrexial interval. The temperature was irregular during relapse, and the relapse itself of short duration. Irregular temperatures followed for many days, and it was doubtful how far the fever was due to relapse, and how far to septicæmic conditions. (Vide text.)

Case 30.—This patient, a male, aged thirty-four, was admitted towards the end of an attack of typhoid fever in September, 1878. At the time of admission the bronchial symptoms very greatly preponderated. The patient had suffered from abdominal pains, but had walked through his illness up to the time of admission. The date of onset of his disease could not be determined, but it was probable that when admitted he was in the third week of an attack of typhoid fever. His temperature chart is given.

On the evening following admission the temperature was 103° Fahr., and it fluctuated for the next seven or eight days with uncertainty, but on the tenth evening of admission was down to 98° Fahr. During these ten days there was a typhoid evacuation once or twice daily, and the patient

made most excellent progress. No medicines calculated to modify the temperature were given, and a careful diet was of course observed.

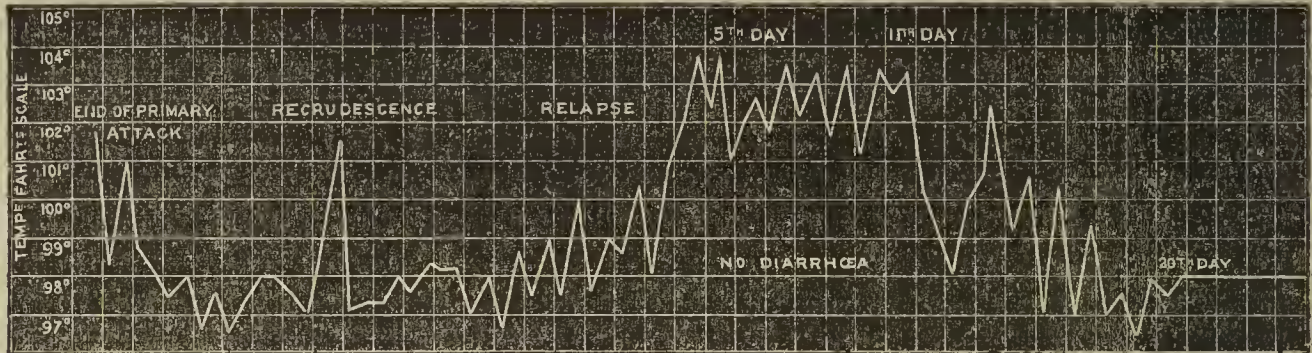
For five days after the termination of the primary attack the temperature was mostly subnormal. Typhoid stools were, however, passed during this time, and on the sixth day the temperature went up from 97° Fahr. to 101.4° Fahr. (four degrees and a half in twenty-four hours); but it fell to 97.2° Fahr. on the following morning. This exacerbation might fairly be described as "recrudescence," which ended in twenty-four hours, and for the five following days the temperature, though irregular, was subnormal. Then it began to rise, and not in the manner of relapses. This rise will be best understood by an examination of the chart, given on the next page. For three days there were increasing elevations of temperature with regular morning remissions, and then that the temperature began to assume a more decided type. In fact, true relapse set in, and from 97.6° Fahr. on the first day the temperature reached 103.8° Fahr. on the fifth day. There was a decided remission (to 98° Fahr.) on the third morning, but a general view of the chart will indicate when relapse commenced, and what course it ran. The patient had no diarrhoea, but was severely ill, and had well-marked typhoid eruption. From the fifth day to the twelfth the fever did not abate; there was no decided fall on the eighth or ninth day. The case was viewed unfavourably, but on the twelfth day the temperature ran down and reached 98° Fahr. on the thirteenth morning of the attack. There was a new accession of fever (102.5° Fahr.) on the fourteenth morning, but next day there was an abatement, and about the twentieth day of relapse the patient began a favourable convalescence. In this case it is interesting to note that typhoid stools were met with in the apyrexial interval, and that apyrexial temperatures were unsteady; that a recrudescence interrupted the interval, and that the true relapse was distinctly preceded by uncertain elevations of temperature; that the relapse was irregular in its course, in that the temperature persisted from the fifth to the twelfth days without any marked fall, and that during this time there were many indications of danger. Very possibly the irregular interval and its recrudescences were but the result of lesions left by the primary attack; and just as possibly the relapse was modified by the persistence of these lesions. At any rate, such a case as this bears strong evidence in favour of careful dietetic treatment of typhoid-convalescents, for, though diet may not obviate relapse, it must certainly modify its course.

Case 31.—This patient, a female, aged thirty-seven, was admitted during an attack of primary typhoid fever on January 8, 1878. Her symptoms were well marked, and in the fourth week of her illness the deep daily intermissions of temperature were exceedingly characteristic. The primary attack was very severe, for on the twentieth day (two days after admission) the temperature was 105.8° Fahr. On the twenty-third day of this attack the temperature was only 98° Fahr., but immediately rose, and for several days fluctuated—as happens in most cases of typhoid fever. The deep daily remissions are given in the appended chart (see next page), and it was not until the fortieth day of disease that the temperature became stable. During the latter days of this period the thermometer was the only certain means of observation. The patient had symptoms of general febrile sufferings, but no diarrhoea and no eruption.

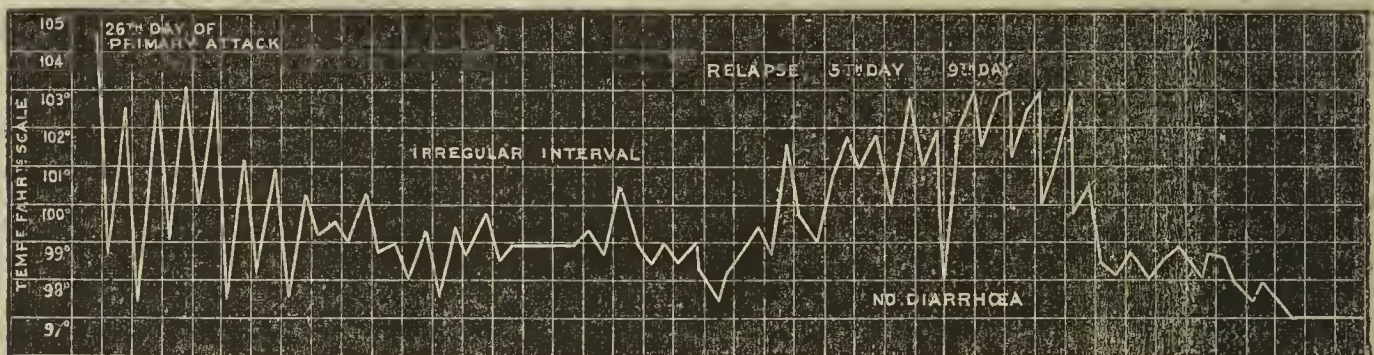
For ten days after the termination of a prolonged primary attack the temperature was day by day all but stationary. It reached each day 99° Fahr., and once 100.6° Fahr.—a height which was ascribed to "recrudescence." However, a true relapse set in, and ran a somewhat irregular course. The last weeks of the primary attack were irregular, the interval between that attack and relapse was irregular, and relapse itself followed an irregular course. This relapse began unexpectedly, and was not accompanied by diarrhoea, though a typhoid stool was passed at least once in every twenty-four hours. The relapse set in when the temperature was only 97.6° Fahr., and on the third evening the height reached was 101.6° Fahr. A fall followed, and then came a rise—on the fifth day to 101.8° Fahr., and on the seventh to

nearly 103° Fahr. The patient was most seriously ill, but on the ninth morning the temperature was 98° Fahr., having fallen in forty-eight hours, with but little interruption, nearly five degrees. The fever ran up again to 103° Fahr. on the ninth evening, and for four following evenings reached this level. Then on the fifteenth day a permanent fall began, and on the twenty-first day of relapse an uninterrupted convalescence commenced. In this, as in the preceding cases, no treatment was followed with the intention of modifying the temperature. Stimulants were given, and a careful diet observed.

I have said that the above cases are illustrative of difficulties and doubts in the study of typhoid relapse. The relapse in the first case was irregular, and though the temperature never reached any height, the patient was often dangerously ill. In the second case the primary attack ended favourably, but the temperature repeatedly excited suspicions that something was wrong. A recrudescence occurred, the temperature, though low, fluctuated irregularly, and finally relapse set in. It is not necessary to follow the course of this relapse again; but it is worth while to examine the third case for the sake of comparison or con-



CASE 30: RECRUDESCENCE AND RELAPSE OF TYPHOID (a male, aged thirty-four).—Admitted during primary attack, which ended about twenty-eighth day. In interval between this and relapse a recrudescence occurred. Relapse set in irregularly. Its highest temperature was reached on fifth day (104° Fahr.). For six days afterwards the temperature daily approached this level, and the patient was in constant danger. It suddenly fell to 98° Fahr. on the thirteenth morning. A new rise occurred, but not an abnormal one, and on the twentieth day the attack was ended. (*Vide text*, on previous page.)



CASE 31: RELAPSE OF TYPHOID FEVER (a female, aged thirty-four).—Admitted about eighteenth day of a severe primary attack, which was prolonged to the fortieth day. An interval of ten days followed, during which there was no true apyrexia. Relapse then set in, preceded by "recrudescence," and was irregular, as had been the primary attack and the interval. The temperature reached its height on the seventh day, but fell on the ninth day (98° Fahr.). A new rise followed, and the relapse ended favourably on the twenty-first day. (*Vide text*.)

trast with it. In this third case an irregular interval followed the primary attacks, and an irregular relapse followed the interval. After what has been written in this and former papers, it is needless to dwell on the indications that the thermometer gave in these irregular cases.

The difficulties which are caused by complications, whose true nature is beyond our diagnosis, appeared in the above cases, and, above all, that difficulty which we set down to pyæmic or septicæmic changes. It is impossible and out of place to discuss such changes in these papers, though they are most intimately associated with typhoid fever and its

relapses. In the cases recorded above, pyæmic or septicæmic conditions played probably an important part; they modified the temperature towards the end of the primary attacks, delayed convalescence, and modified the "intervals" and the course of the relapses themselves. Such examples enforce the lesson that typhoid fever and its relapses often simulate poisoned-blood states dependent on other causes, and that care in the use of the thermometer is a most important help in the solution of such clinical difficulties.

(To be continued.)

OBSERVATIONS ON YAWS:

ITS ALLEGED CONTAGIOUSNESS, AND THE IMPORTANCE OF IMPROVED DIET AS PREVENTIVE OF THE DISEASE.

By GAVIN MILROY, M.D., F.R.C.P.

1. In Cullen's "Nosology," Yaws ("frambœsia") is included in the class "Cachexiæ," and order "Impetigines" of diseases. The definition of this order is thus given: "A depraved state of the body, with tumours, eruptions, or other preternatural affections of the skin." The order comprises the well-known maladies of "scrofula," "scurvy," and "leprosy," etc. It is thus clearly seen what was the view which Cullen held as to the nature or physiology of the disease of Yaws.

2. Although Yaws appear to be, under certain conditions, contagious or communicable to healthy persons by contact with the diseased, it has always seemed to me very problematical whether contagion is the chief or the sole cause, as is frequently held in the West Indies, of the extension

and propagation of the malady among a community; at best, the idea must still be regarded as only an unverified hypothesis. A like belief in respect of leprosy, formerly so very generally accepted, has been shown to be erroneous; and to this it may be added that the "Oriental Sores" (a) of various countries in the East, together with the "Parangi" disease of Ceylon, and the "Coko" disease of Fiji—which are considered to be analogous or allied maladies to the Yaws of the West Indies—are admitted to arise at times *de novo*, and quite independently of contagion from antecedent cases.

3. Much patient and unbiased investigation by resident medical practitioners has yet to be made before we shall have an exact and logical account of the natural history of Yaws and of its attributes in all their bearings. What I myself saw and heard in the different colonies which I visited in 1871-72 quite satisfied me upon this head; and the consideration of the whole subject, since my return from the

(a) "On Certain Endemic Skin and other Diseases of India and Hot Climates generally." Published under the sanction of the Secretary of State for India. J. and A. Churchill, London, 1836.

West Indies has served to confirm the views which then suggested themselves to my mind.

4. Recently I have had an opportunity of discussing the question as to the probable origination and spread of Yaws, with one of the ablest of our West Indian practitioners, who has been instrumental in effecting some valuable hygienic reforms—viz., Dr. Crane, Surgeon-General of Trinidad. Although the disease is anything but unknown in that island, there is no special asylum or hospital for patients affected with Yaws; they are readily admitted into the large General Hospital in Port of Spain, and also into other medical institutions. No ill effects have resulted from the practice. My own observations in Demerara, Trinidad, and Jamaica led me to believe that certainly the disease does by no means uniformly manifest any decidedly contagious property.

5. If it be proved that the disease is liable at times to become developed independently of contagion, it is obvious that it will be in vain to look for its extinction in a community by means, however stringent, of mere isolation or segregation of the affected from the rest of the inhabitants. Whatever amount of benefit may be obtained from the establishment, so wisely instituted, of a suitable central hospital at Canefield (within a few miles from Roseau, the principal town of the island) for the reception of aggravated cases, it is hopeless, I fear, to anticipate by such efforts the eradication of the malady from so scattered a population as exists in Dominica.

6. But this apprehension need not be the cause of any discouragement to the local authorities, should it lead to the more attentive consideration of the factors which probably lie at the root of the evil, and which have hitherto, in my judgment, caused the persistence and inveteracy of this form of cachectic disease among the poor population. In my Report (b) (pages 46-50 and page 54) I have so emphatically recorded my views on the subject, and these have been reiterated on several occasions in subsequent letters to the Colonial Office, that it is needless to revert to them again. The perusal of Dr. Nicholls' last Report adds confirmation to their soundness. One short extract will suffice:—"There exists, however, no doubt in my mind that the food and the mode of living of numbers of the peasantry of Dominica predispose them to the accession of Yaws as well as to most other like maladies."

7. Stronger than the expression of any mere personal opinion will be the simple examination of the dietary (given at the end of these remarks) of the new Yaws Hospital at Canefield. Compared with the list of dietaries (at pages 46 and 47 of my Report) in various institutions in different colonies, it stands lowest in the scale in point of nutrimental value; it is decidedly below that of the local Orphanage in the town of Roseau.

No medical man in this country will be surprised that, with such a dietary in the treatment of a cachectic impetiginous disease, the results have not been so successful as could be desired, whatever may have been the medicinal remedies that are used.

8. Independently of the extreme difficulty of combating a disease like Yaws, under such adverse circumstances as the daily use of so much innutritious and unwholesome food, it is not to be forgotten that such a dietary greatly lessens the amount of the ordinary productive labour at all times among a working population. The testimony of Governor Longden, and of a naval officer whom I met at Roseau, is very significant on this head (pages 49 and 67 of my Report); and equally deserving of consideration is the statement of Dr. Nicholls at the beginning of his Report, that "within the last few years the disease has attacked so many of the families of the peasantry, that considerable alarm has been felt among all classes throughout the island. The disablement by Yaws of a great number of agricultural labourers could not but have a deteriorating influence upon the commerce of an island of which the staple produce is raised from the soil."

9. The geographical character of Dominica, consisting of high hills and deep glens and valleys, at once suggests the idea that it is designed by nature to be a pastoral country, and fitted for the rearing of all sorts of cattle, etc. And all the remarks I heard during my sojourn at Roseau tended to

this belief. The truth of the statements at pages 49 and 50 of my Report has not, to the best of my knowledge, been questioned. The account which Dr. Nicholls has now given of the diet and feeding of the lower orders must be confessed to be very lamentable, and will, it is to be hoped, stir up the efforts of the local authorities and excite the interest of the Imperial Government to initiate means for the rectification of the existing state of things in respect of the increased supply to the inhabitants of—

(a) Fresh animal food, along with milk—so necessary an article of food.

(b) Although I have no direct information as to the procurable amount of fresh fish in Roscan, the impression left on my mind was that the whole extent of the coast, from Scott's Head to Prince Rupert's Bay, may possibly be found to be a prolific field of supply of this wholesome article of food. What has been so successfully done at the Lunatic Asylum of Jamaica may be equally profitable near to Roseau.

(c) It may be reasonably inferred that in so fine a climate as that of Dominica, a large amount of poultry may readily be reared. Eggs constitute one of the best articles of food, especially for the young in all countries, and they are admirably suited for the dietary of invalids.

(d) Although Dr. Nicholls expressly says that "as regards the supply of good and nourishing vegetables, no labouring population in any part of the world is better off than the peasantry of this island," yet only one sort is mentioned in the dietary of the Hospital, and that on Sundays and Tuesdays only. The daily use of fresh vegetables is most desirable. And the same remark may be made in regard of chocolate, a very nutritious article for breakfast.

The times of the meals, as well as their number, appear to me to stand much in need of alteration.

10. That the improvement of the diet among the working classes by the ample rearing of cattle, large and small, would be a potent means of preventing much of the disease and ill-health in the island, and also of increasing the amount of available industrial labour, cannot for one moment be doubted.

That the multiplication of stock would likewise become in time a source of much commercial profit may fairly be presumed when it is considered that several of the adjacent or neighbouring colonies continually import a large amount of cattle, etc., for the supply of their markets—as Barbadoes, which imports much from the distant Spanish island of Porto Rico, and Trinidad, which draws its supplies not only from the coast of South America, but also from the Grenadine Islands.

11. The tabular statement, at page 50 of my Report, of the exports of cattle from Dominica is, to say the least, curious and suggestive, nor may it be undeserving of notice that the records of the Board of Health at Roseau show that the prevalence of Yaws in the island has been a cause of trouble to the local authorities as far back as 1862, if it was not before that date.

12. As it is mentioned in Dr. Nicholls' Report that serious mischief continues to be done in Dominica, as is well known to be the case in other West India colonies, by the unchecked use of various nostrums for the alleged cure of Yaws (all of which so-called remedies contain, it is believed, some mercurial preparation), it would be well if the sale of such quack medicines were strictly prohibited by severe penalties.

Dietary at the Central Yaws Hospital, Dominica.

Breakfast, taken at 9 a.m.—Sunday: 8 oz. of bread, $1\frac{1}{2}$ oz. of syrup, $1\frac{1}{2}$ oz. of chocolate. All other days: 8 oz. of bread, $1\frac{1}{2}$ oz. of syrup.

Dinner, taken at 4.30 p.m.—Sunday: 2 oz. of fresh meat, 4 plantains. Monday: $\frac{1}{2}$ pint of vegetable soup, seasoned with salt pork, and $\frac{3}{4}$ pint of farina. Tuesday: 4 oz. of salt fish, $\frac{3}{4}$ pint of farina, $\frac{1}{2}$ pint of lemonade. Wednesday: Same as Monday. Thursday: 4 oz. of salt fish, 4 plantains, $\frac{1}{2}$ pint of lemonade. Friday: Same as Monday. Saturday: 4 oz. of salt fish, $\frac{3}{4}$ pint of farina. (*Fresh* is substituted for salt fish when it can be obtained.)

THE GRESHAM LECTURES.—The Lectures on Physic, founded by Sir Thomas Gresham, will be given by Dr. Symes Thompson, Gresham Professor of Medicine, in the theatre of Gresham College, Basinghall-street, at six o'clock on the evenings of the 14th, 15th, 16th, and 17th inst.

(b) "Report on Leprosy and Yaws in the West Indies" (Parliamentary paper), 1873.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. THOMAS'S HOSPITAL.

CASE OF INTRA-THORACIC TUMOUR PRESSING ON THE ŒSOPHAGUS AND OCCLUDING THE THORACIC DUCT.

(Under the care of Dr. STONE.)

J. C. H., aged fifty, messenger, was admitted into Arthur ward on March 19. He stated that he had chancre in India in 1850, followed by a secondary rash, which he described as "like the spots on a tiger's skin." He suffered from remittent fever in 1869, but never had dysentery or hepatic symptoms. He has been married for twenty years, but has never had any family. The present illness commenced four months ago with emaciation, followed in a month by dysphagia; for three weeks he has lost his voice. The access was gradual, unaccompanied by hæmorrhage, cough, or difficulty of breathing. The loss of voice was sudden, "coming on in a couple of hours."

On admission the patient was evidently much emaciated, complaining that he could not swallow food, even milk being rejected. He has lived latterly on a fine flour termed "Russian food." The obstruction was referred to a spot midway between the right nipple and the neighbouring edge of the sternum. He complained of no pain, but of slight tenderness in the epigastrium. He had not had hæmatemesis or mæna. The bowels were regular. Hepatic dulness was not increased; the lower edge of the liver was smooth and not tender. The chest was normal. Respirations 18, pulse 96. Cardiac dulness was rather large, but the heart's action was free from morbid sounds. Temperature 99.4°. The aphonia was constant, the voice being reduced to a whisper. The matters vomited were clear and watery, not acid, and free from smell. The urine had a specific gravity of 1028, was acid, and contained no albumen. The inguinal and femoral glands were amygdaloid. Old nodes could be felt on both tibiae. On physical examination, a small œsophagus bougie was found to meet with decided obstruction at a point twelve inches from the mouth. The laryngoscope showed paralysis of the right vocal cord, entirely preventing closure of the rima glottidis. In consequence of the distinct history of syphilis he was ordered the biniodide of mercury with excess of iodide of potash. On April 1 he expectorated some blood, and between that date and his admission his weight had fallen from 7 st. 13 lbs. to 7 st. 10½ lbs. On April 7 nutrient enemata were administered. He rose in weight on the 8th to 7 st. 11½ lbs. On the 10th a No. 10 urethral catheter was passed through the obstruction, and mutton-broth was administered by this means. On the 14th he swallowed with much greater ease, taking eggs, broth, and custard-pudding. 15th: Weight 7 st. 10½ lbs. 17th: A pint of beef-tea passed through the catheter. 21st: Weight 7 st. 11 lbs. Improved in every respect up to the 26th, on which day he took abundant fish and other solid food. On the 28th hæmorrhage returned, and laryngeal symptoms increased. The left vocal cord was found to be paralysed as well as the right. On May 7 there were signs of mercurial salivation. Nothing characteristic was found by microscopic examination of the matter adhering to the catheter. The apex of the heart was felt three inches below and one inch external to the left nipple. There was an occasional blowing murmur with systole. On May 15 he had a rigor lasting forty-five minutes, the temperature rising to 103.8°; pulse 108; respirations 36. The temperature remained high (above 102°) for twenty-four hours. From this time he got rapidly worse, the emaciation advancing at an increased rate. On May 29 the interseapular dulness was found to be large, and the whispering voice to be abnormally transmitted. On June 5 another rigor occurred, and from that date he slowly sank, dying on June 22.

On post mortem examination the superior mediastinal glands and those of the anterior, middle, and posterior regions at the root of the lungs were found to be much swollen and infiltrated with greyish-coloured new growth.

The substance of the right lung was congested and friable. The bronchial tubes near the root communicated by irregular ulcerated openings with a generally broken-down cancerous mass lying behind the root. The same appearances were seen in the left lung. The heart showed some thickening of the mitral valve. Between the upper aperture of the thorax and the lower border of the root of the lungs the walls of the œsophagus were all more or less involved in a mass of new growth. Above the aortic arch the scirrhus mass projected into the tube for about one inch and a half, thus constricting the passage. Above this was a large irregular ulcerated cavity communicating with the large bronchial tubes. The thoracic duct was entirely surrounded, and its walls were evidently thickened, infiltrated, and its calibre obstructed by the same malignant growth. A nodule of scirrhus the size of a marble was found in the anterior border of the right lobe of the liver.

The points to be noted in this case are:—1. The limited nature of the new growth and the partial improvement which followed on the establishment of artificial nutrition, leading to a slight increase in weight. 2. The occurrence of a sudden severe rigor with great rise in temperature, followed by rapid emaciation. This, otherwise unaccounted for at the autopsy, may perhaps coincide with the occlusion of the thoracic duct. 3. The detection during life of cavernous sounds, indicating a communication in the interseapular region between the œsophagus and large bronchi. 4. The early evidence afforded by the paralysis of the right, and subsequently of the left vocal cord.

[It may be noted that this case was selected by Dr. Stone, after consultation with his co-examiner Dr. Murchison, for the practical part of the examination for the Mead Medal. The laryngeal paralysis was most correctly and creditably detected by Mr. Theodore Acland, the successful candidate.]

INFLUENCE OF MEDICINAL AGENTS ON THE FŒTUS.—

Dr. Kubassow reported to the St. Petersburg Medical Society the results of some experiments which he had performed. In three instances a drachm of chloroform, and in six from a scruple to half a drachm of chloral hydrate, was administered as an enema to the woman in labour, sometimes in a single dose, and at others in several times. They were as follows:—1. Both substances given in medium doses exert a decided effect on the fœtus. 2. Both appear to act in a similar manner. 3. At first a stimulant effect is produced, as shown in the more active movements of the child, and in the increase in force and rapidity of the action of the heart. Later this action becomes less forcible and slower, and the movements of the child are exerted less readily. 4. The effect is induced rapidly, viz., in five, or at latest ten minutes. 5. Chloral acts more rapidly and forcibly than chloroform, even when chloroform-narcosis is produced. 6. Chloroform can always be detected in the blood of the funis. 7. After injection of chloral a slight excitement is also produced in the mother, which is followed in two or three hours by a diminution of temperature.—*St. Petersb. Med. Woch.*, September 20.

LONDON DRUGS.—Dr. Yandell writes:—"In nothing is London worse off or more behind the times than in her pharmaceutical preparations. The other day I wanted some citrate of iron and quinia pills; and I was told at one of the chief retail establishments that pills could not be made of cit. fer. et quinia, or rather that no way could be devised of preventing their running together. Finding argument and instruction useless, I suggested capsules. Positively, I do not believe the people of the shop had ever seen a capsule. At any rate they are utterly ignorant of them, and declared that they are never used over here. Having no fancy for a solution of ferrum and quiniæ cit., which I was assured was the only proper way to take the medicine, I asked for dialysed iron, and the article presented was simply shameful. In colour it was correct, but it had not one other physical property of dialysed iron. Instead of being bland and smooth to the taste, it was rough and astringent; and instead of being neutral it was excessively acid, and put the teeth of an edge. I asked for Wyeth's dialysed iron, which is always perfect, but they had none. At several places—all at the West-end—I have tried the dialysed iron, and without exception it is vile and abominable."—*Louisville Med. News*, September 13.

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Medical Times and Gazette.

SATURDAY, OCTOBER 11, 1879.

EDUCATION—PRELIMINARY AND MEDICAL.

THE great importance of this subject to us all, professional and non-professional, and the unrest which is in us as regards it, are very clearly shadowed forth in the various introductions which we published last week or now lay before our readers. As a matter of course the various speakers were bound to refer to it from a purely professional point of view; that so many did refer to it is in itself a fact worth noting. No two speakers could at first sight entertain views more opposite than do Mr. Dalby, at St. George's, and Dr. Dupré, at Westminster; yet such passing impressions, as we all know, are often erroneous, and closer examination will find that in many respects they in their opinions are not far apart. Mr. Dalby's views we published in abstract last week, and we now give Dr. Dupré's address in full. We would earnestly commend it to the consideration of the reader as one of the best of its kind. Deeply thoughtful, clear, and well expressed, it conveys opinions not formed on the spur of the moment, but evidently the result of long and earnest excogitation. At first sight, as we have said, Dr. Dupré and Mr. Dalby would seem to occupy opposite camps—Dr. Dupré is strong for classics, Mr. Dalby for science; but Dr. Dupré begins at an earlier period of man's mental history than does Mr. Dalby. In the result their opinions are singularly unanimous.

The address by Dr. Dupré is all the more remarkable as coming from a man who is, in the slang of the day, a "professed (we may add profound) scientist." Science is his occupation in life, yet even so he manfully battles for the classics as a part of a sound education. Coming from such a quarter, the testimony is doubly valuable; but it is founded on more than personal experience, for, as he says, "there was a time when leaders in science like the late Baron Liebig expressed their conviction that a new national life would commence for Germany, and that future generations would, in consequence of their increased knowledge of natural science, be intellectually superior to past generations,

brought up chiefly in the old classical schools." But, adds Dr. Dupré, "unfortunately, this bright vision has not been realised, and Germany is reverting more or less to the old style." Liebig himself confessed in after years that his earlier opinions had been erroneous. He found that those who came to study chemistry with him—and they came from the outermost ends of the earth,—who had been trained purely in physical science, acquired a great start over those whose education had not been so limited, but that they could hardly maintain their advantage.

This ground has so often been fought over that it may appear vain to attempt any one thing new on the subject. Nevertheless, Dr. Dupré's testimony emboldens us to say another word with regard to it. He clearly points out that there are, or ought to be, two periods in educational life—one for the fitting up of the mental instrument, the other for its application to specific ends. As it seems to us, one of the greatest evils, in a certain sense, which has overtaken this country has been the introduction of the Chinese system of competitive examination, and its correlative payments by results. Together with these there has come upon us a kind of mania for natural science, generally falsely so called. The cry has been loud and grievous, that, apart from natural science, there is nothing but names—with it alone rest facts. We wish this were true. Did natural science mean invariably the close study of natural phenomena, involving a training to minute and accurate observation, it were well; but too frequently it means only scraps of information picked up in a desultory fashion, knowledge derived from books, not from objects: a knowledge—if we dare call it so—not of things, but of names, which implies no real training, only an effort of memory. Hence it is, then, that to clever lads and to exhibition-seeking teachers natural science has so many charms. Its paths are tolerably well mapped out, and with fair luck and industry it would be hard not to anticipate a goodly number of questions, the answers to which have been committed to memory; and this is well known to be the actual state of matters. But here we speak of the prostitution and debasement of natural science as a means to a certain end, and we should be sorry indeed to put our estimate of all training in it on such a ground, though assuredly this condition of things has disgusted many who have had scientific training sincerely at heart.

Our opposition to a purely scientific training rests on a deeper foundation than this. There can be nothing more objectionable in any system of education than a tendency to make men's minds run in grooves, or better call them at once "ruts." We all, in our own profession, feel that; and it is one of the opprobria of our profession that we cannot readily "quit the shop." If such a tendency can be developed by the course of study pursued by most medical men, how much more so were it intensified by a training of a similar kind pursued from earliest youth? Here, again, it is true that if natural science were better taught—that is, less with an eye to results—it would be a better training instrument; but that is begging the question.

As regards classics, from the medical point of view, we should say this—that they are likely, up to a certain point, to furnish a more convenient form of mental exercise than natural history of any kind or description can do. A knowledge of classics, except acquired by means of a crib, implies a degree of mental training which cannot fail to be useful when it comes to be applied in other directions. And at a certain stage of education it is training as much as knowledge that is required. We might continue this sort of schoolboy debating society essay *ad infinitum*; but we are addressing educated gentlemen whom we otherwise should not have ventured so to address had it not been for the appearance of Dr. Dupré's admirable lecture on the subject. It cannot

fail of doing good, and if it only succeeds in helping to stem the tide of opinion now in its utmost pendulum-swing, and not far from the rebound, he will have done well for the republic.

THE PLAGUE IN RUSSIA.

IN the form of addresses delivered to the Berlin Medical Society, Prof. Hirsch and Dr. Max Sommerbrodt of Berlin, the two principal German Commissioners sent to investigate the late epidemic of plague in Astrachan, have summarised the results of their visit to the infected district, and we have been able to place before our readers an abstract of the lectures of Professor Hirsch, in which these results have been lucidly set forth. Our readers may be aware that the English Commissioners have also presented their report, but for reasons beyond the control of the Commissioners themselves their report cannot be regarded as of the same interest and importance as the information supplied us by the Berlin Commissioners, who were somewhat earlier on the spot, and evidently had greater facilities for investigation than their English brethren. We hope to place a summary of the report of the English Commissioners before our readers at an early date. Meanwhile, it may not be without interest to give here a short abstract of the conclusions of the Berlin Commission.

It must be remembered that all the foreign commissioners arrived on the spot when the epidemic was practically over, that the doctors, nurses, and priests who had attended the sick at its first outbreak were all dead, and that the panic which seized the inhabitants of Wetljanka at the height of the disease had prevented an accurate record of any kind being kept during that period. Hence the materials for investigation were but scanty, but they were sufficient to clear up several important points and to explain the discordant views of different observers.

In the first place it was distinctly made out by the German Commissioners that there was a difference between the mild cases of plague with which the epidemic at Wetljanka began and ended, and the severe cases at its acme—namely, that glandular swellings or “buboes” characterised the first, but were either absent or formed but an insignificant feature in the second. The cases of so-called *pestis siderans*, which destroyed the patient in two or three days from the time of onset, ran too rapid a course for the ‘bubo’ to develop itself, and they failed therefore in one of the physical signs on which so much stress has been laid in the diagnosis of plague. It seems indeed as if the development of buboes were a good rather than a bad feature in the disease. The incubative period, as far as could be ascertained, varied between two and eight days, with a mean duration of 5.2 days. The main features of the disease, as described in writing by one of the priests who died during the worst part of the epidemic, were headache, fever, giddiness, vomiting, either with or without glandular swellings, and death in three or four, or at the most six, days. There was a general agreement among those persons who had had to do with the sufferers, that the sensorium was but little involved in most cases; and the Turkish delegate, Dr. Kabiadis, a man of large experience of the plague in Asia, affirmed that symptoms resembling those of intoxication were the most often met with, those of a severe nervous character seldom. As Dr. Sommerbrodt remarks, this is contrary to our usual idea of the plague as a “typhoid” disease.

The epidemic at Wetljanka took several weeks to reach its height. From October 1 to 28, 1878, there were only 6 deaths; from October 29 to November 25, 16 deaths; but in December the mortality suddenly increased in a striking manner, from 7 in the week November 26 to December 2, to 56 between

December 3 and 9, and 169 between December 10 and 16—41 of these occurring on one day. In the week ending January 12, 1879, the number of deaths had again fallen as low as 12. The population of Wetljanka was reckoned at 1750 before the arrival of the plague, and it is probable that 440 persons, or 25.3 per cent., were attacked by it, of whom 359, or 82 per cent., of the infected died. About 90 deaths are said to have also taken place in the five neighbouring villages and on the steppes. No person is known to have been attacked a second time after recovery. No post-mortem examinations were made during the epidemic. The whole remaining population of Wetljanka, consisting of 1383 persons, was examined—the males by Professors Eichwald and Biesiadecki, and the females by a lady doctor named Bestuschewa—for the traces of glandular inflammation or scars of buboes, and such were found in 29 out of 81 cases of convalescents from the disease. The position of the scars in the eleven cases in which they occurred was in the crural glands five times, inguinal glands three times, submaxillary glands twice, and axillary once. It does not appear that, as was at one time asserted, pulmonary complications were frequent in this epidemic. Professor Hirsch only admits “a slight bronchitic affection” as standing in any causal relationship to the plague itself, and considers a few cases of pneumonia which occurred at the time as having nothing in common with it. It is almost superfluous to add that no doubt remained in the minds of the German Commissioners after their inquiry as to the identity of the disease with Oriental plague or Bubopest.

The origin of the disease, however, has not even yet been satisfactorily discovered. The country round Wetljanka on either side of the Volga is reported by Professor Hirsch to be fertile, the towns and villages with good streets and comfortable houses, the population well-to-do and intelligent. The condition of things as to cleanliness, etc., is much as it has been for centuries. The endemic diseases are malaria, inflammatory affections of the lungs, rheumatism, scrofula, and syphilis. The epidemics of the last ten years have been mainly those of scarlet fever, typhoid fever, and cholera. The last appearance of the plague in the locality was in 1807-8, when it was probably brought by pilgrims from Mecca. To cut a long story short, we may say that Professor Hirsch believes that the source of the plague at Wetljanka in 1878 was infected clothing which had found its way from Persia or Mesopotamia into Armenia, and possibly into some bazaar at Erzeroum or Kars, where it had lain unpacked. This clothing then probably fell into the hands of Cossacks as booty, and was sent home by them unopened to Wetljanka, which is a Stanitza, or Cossack station, of which there are eighteen in Astrachan. It is certain that Armenian booty did reach Wetljanka; and also that the infection of plague lingers long in clothing which has been worn by those sick of the disease. There is not the slightest ground, according to Professor Hirsch, for assuming an origin of plague *de novo* in the village. We may remark, however, that this local origin of the plague is the explanation of its appearance given by Surgeon-Major Colville. But in this opinion Dr. Payne has some difficulty in agreeing with his colleague. Professor Hirsch found that no connexion could be traced between an epidemic of plague which occurred in 1876-77 at and near the Persian town of Rescht, not far from the shores of the Caspian Sea, and the epidemic at Wetljanka. Whether a curious epidemic of fever accompanied with glandular swelling, which attacked about 150 people, in the summer of 1877, at Astrachan itself, is to be regarded as in any way related to the true plague, will probably always remain an open question. But, at any rate, at Astrachan only one patient died; no case of direct infection was observed, nor did any of the soldiers of the city garrison suffer.

Professor Hirsch's theory of infected clothing seems to us to be that which will be most generally accepted by epidemiologists, although at first sight somewhat far-fetched. In no other way does it appear possible to explain an outburst of plague in an isolated village of a scattered district, where it had been previously unknown for half a century, especially when it is considered that no change for the worse had taken place in the sanitary condition of the place, and that many other villages through the district were not visited by the plague at all, though their hygienic condition was no better, if not worse, than that of the village attacked. Professor Hirsch is unable to decide whether meteorological conditions in any way affected the course or the disappearance of the epidemic.

Professor Hirsch admits the possibility of a fresh outbreak due to plague germs at present latent, but he considers that the Russian Government is not likely to forget the warning it has just received, but that by isolation of suspicious cases and a careful system of quarantine of local outbreaks it will prevent any extension of the disease on a large scale for the future. Let us hope, however, that there may be no latent germs, and that Europe has already seen the last of the plague.

THE WEEK.

TOPICS OF THE DAY.

THE business of the Social Science Congress was opened at Manchester last week, when the retiring President, Lord Norton, having given place to the President-elect, the Bishop of Manchester, the latter gentleman delivered his inaugural address. Of the proceedings in the various sections, the address in the Health Department, delivered by Mr. F. S. Powell, ought to be noted. He showed that great strides have been made of late in the direction of sanitary improvement and reform, and he contrasted a Lancashire manufacturing town of former days, with its mortality, disease, and filth, with one of the present time. In Lancashire, he explained, progress had been assisted by the operation of the Public Works Acts and the advance of public money for local improvements. Much, however, Mr. Powell remarked, still remained to be done, and one great hindrance to further reform was the political position of the Health Minister. He was president of a board which had no real existence, was ordinarily excluded from the Cabinet, and was necessarily compelled to administer his department under a sense of his secondary position respecting local authorities. Mr. Powell suggested that all sickness should be carefully registered, and the Acts of last session for compelling the formation of cemeteries, and amending the Food and Drugs Adulteration Act, would do much good in the future. Further, the construction of works for water-supply in the case of urban districts should be on a large scale, either by combination with lesser communities, or by contribution to them of water collected by towns of greater size.

The preliminary inquiry into the Birkenhead baby-farming case has at length concluded, with the result that John and Catherine Barns have been committed for trial. At the termination of the proceedings before the Birkenhead magistrate that functionary said: "This preliminary inquiry is now at an end, and it only remains for me to commit the prisoners for trial at the assizes. As I think there is evidence to show the jury that they contemplated the deaths of these children, or that they contemplated doing them serious bodily harm, I must send them for trial on the charge of wilfully murdering two of the children, and in the case of misdemeanour—the case of the child Florence—they will also be committed for trial." The prisoners will be tried at Chester, towards the end of the month, before

Mr. Justice Brett. At the meeting of the Birkenhead Town Council, held last week, it was stated that the Health Committee had been appointed to carry out the provisions of the Infant Life Protection Act of 1872, hitherto neglected in the district. The Town Clerk remarked that he thought the proper course would be to direct a register to be kept, after which no one would be able to take infants to farm without incurring the penalties provided by the Act. It would surely be more satisfactory if Acts of Parliament passed for the whole of the kingdom were made compulsory, instead of optional, for adoption by country authorities; in the former case so grave a scandal as the present might never have occurred.

A farmer of Downend, near Bristol, named Payne, was recently summoned by two dairymen of Clifton for selling them milk adulterated with water. In his defence it was urged that the weather had much to do with the poorness of the milk; in fact, with so much rain the cows in some places could give little else than water! The Bench, however, refused to admit the validity of this latest delinquency on the part of our much-abused climate, and fined the defendant £20 and costs, or in default two months' imprisonment.

The Medical Defence Association is to be congratulated upon having recently obtained a conviction against one of the class of persons who live upon the credulity and shamefacedness of the uneducated portion of the public. They last week summoned to the Marylebone Police-court a person trading under the name of Du Voy, but whose right name was stated to be Martin Osterfield Roy, for wilfully pretending to be, or taking and using the name and title of, a doctor of medicine. The necessary evidence was furnished by Mr. Reginald Wilson, a medical student at St. Mary Hospital, who had had a pamphlet of the defendant's placed in his hand in the street, and who had at once placed himself in communication with the Association. Acting under their instructions he called upon the defendant in reference to a supposed nervous disorder; and he produced several letters which he had received from the pretended medical man. It was sought to be shown for the defence that a Mr. Du Voy, a qualified practitioner of France, some years ago commenced business in this country as a doctor, and opened some of these shops, the defendant being only Du Voy's assistant, and never having represented himself to be a doctor. Mr. De Rutzen, in dealing with the case, said this was exactly one of those the Act of Parliament intended to guard the public against. The offence had been clearly made out, and a worse case he had never heard; he saw no reason to mitigate the penalty, and the defendant would have to pay a fine of £20, or in default of distress be committed to prison for two months. The defendant, in a violent manner, said that this was "one of the hottest courts in London," but he intended to have justice done.

On the 26th ultimo the new Cottage Hospital erected at Bourton-on-the-Water, under the direction of Mr. J. E. Cutts, architect, of London, was formally opened by Mr. E. R. Wingfield, High Sheriff of Gloucestershire. The new Hospital has cost £1100, but the receipts from all sources have only reached the sum of £870, leaving a considerable balance still to be collected. The new Hospital was designed to replace the old building which had been in use for upwards of twenty years, and as the institution has proved a great boon to the surrounding neighbourhood for so long a period, it is to be hoped that the Committee will not find a great deal of difficulty in obtaining funds to meet the remainder of their liability.

At last week's meeting of the Metropolitan Board of Works the General Purposes Committee reported that the West Middlesex Waterworks Company had intimated their

intention to give, on and after January 1, 1880, a constant supply of water in that part of their district which lies to the north of the Euston-road. A letter was also read from Mr. D. Lovett, Medical Officer of Health for the St. Giles's district, calling attention to an outbreak of typhus fever in Orange-court, within the Great Wild-street area, and stating that on account of the unhealthy condition of the houses scheduled in the area he was of opinion that the whole of them should be shut up at once. The letter was ordered to be referred to the St. Giles's District Board with an intimation from the solicitor that the Local Board had power to act in the matter under the Nuisances Removal Act.

A serious outbreak of scarlet fever is reported to have occurred in the East-end of London during the past few days, the Medical Officer of the parish of St. George's-in-the-East having no fewer than 108 cases under his notice. On Saturday last the parochial authorities of Bethnal-green issued notices calling the attention of the inhabitants to the necessity that exists for the proper cleansing of their dwellings. In the parish disinfectants are supplied whenever required, and every means is being taken by the sanitary inspectors appointed for the district to secure it against an attack of diseases of a contagious character. In Mile End, Stepney, and St. George's-in-the-East, in order to prevent the spread of the epidemic, the dealers in old clothes, of whom there are many in the neighbourhood, have been warned that cast-off clothing is one of the most effective means of disseminating the disease.

The annual death-rate from all causes in London, which had been equal to 19.7 and 17.2 per thousand in the two preceding weeks, rose again in the week ending Saturday, October 4, to 19. During the thirteen weeks which ended on Saturday, the 27th ult., the death-rate averaged only 18.4 per thousand, against 19.3 and 22.1 in the corresponding periods of 1877 and 1878. Four fatal cases of small-pox were registered last week, against only one and two in the two previous weeks. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had fallen steadily from 111 to 56 in the preceding six weeks, further declined to 45 on Saturday last. The new cases admitted to these hospitals, which had numbered 3, 6, and 7 in the three previous weeks, were 4 last week. The deaths referred to diseases of the respiratory organs had slowly increased during the preceding four weeks, and further rose last week to 201, being 18 below the corrected weekly average. Seven cases of suicide were registered during the week. The recorded duration of sunshine at the Royal Observatory, Greenwich, in the week was 19.5 hours, equal to 24 per cent. of its possible duration.

The receipts of the Hospital Saturday Fund up to date are represented to be £4700. The latest amounts received include £50 from Mr. Lionel de Rothschild, £32 from the London and St. Katharine Docks Company, £39 from the London, Chatham, and Dover Railway Company, and £21 from Messrs. Higgs and Hill.

A report has been made to the Secretary to the Admiralty by Major Crease, Royal Marines, on the filters at present in use in the Royal Navy. Speaking of the carbon which is at present used as a filtering medium, Major Crease points out that it has one disadvantage—viz., instead of clearing out, it rather affords to the water passed through it, materials which assist in the development of some of the lower organisms. Spongy iron has not this disadvantage, but is slow in its action, and occupies much space in a filter. A newly devised carbonised mineral, which has been called carferal, and which combines carbon, iron, and silicate of alumina, has been experimented upon by analytical chemists, and

the results of their examination are stated to be that it has all the advantages of spongy iron and carbon without any of their drawbacks. The use of carferal is therefore recommended for filters in the Royal Navy.

The *Times* obituary records the decease of two medical men of some note—Professor Mohr, of Bonn University, and Dr. Seng, of Vienna, the former aged seventy-two, and the latter eighty. Professor Mohr, like his father, was originally an apothecary at Coblenz; in 1864 he was attached to Bonn University; and some of his works on chemistry, geology, and physics have been considered worthy of translation into foreign languages. His activity was inexhaustible, and on his death-bed he dictated scientific treatises. Ignaz Seng, the son of a German, who on the outbreak of the first revolution left Paris for Vienna and entered the army, was a pupil of the surgeon Mozart, nephew of the composer, and he had many tales to tell of the Great Napoleon, Beethoven, and other famous men with whom he had come in contact.

THE ROYAL COLLEGE OF SURGEONS.

WE believe that at the meeting of the Council of the Royal College of Surgeons on Thursday next Mr. Hancock will bring forward his motion for the appointment of a committee to consider and report on the necessary arrangements to be made for instituting examinations in chemistry, materia medica, pharmacy, and midwifery, to be passed by all candidates for the membership and fellowship of the College not already qualified in those subjects; and to advise as to exemptions from those examinations: and also to report on the practicability and desirability of bringing about a voluntary association between the Colleges of Physicians and Surgeons and the Society of Apothecaries for the establishment of a full conjoint examination. He will propose, we have understood, that the committee, if appointed, shall before reporting be at liberty to confer with the authorities of the other corporations upon the subject of the proposed association. Mr. Hancock is moved to take this step by a consideration of the little prospect now existing of any immediate medical legislation; and we hold that he is doing good service in trying to rouse the London colleges into making the really needed reforms in their examinations without any longer waiting for a new Medical Bill or a cumbrous Conjoint Scheme. At the same Council meeting it is probable that a motion will be made by Mr. Simon to rescind the rule which restricts the appointment on the Board of Examiners in Anatomy and Physiology to persons who are Fellows of the College.

THE GENERAL HOSPITAL, BIRMINGHAM.

THE Governors and Committee of the General Hospital, Birmingham, are desirous of commemorating the hundredth year of its existence as a medical charity, which was reached on the 29th ult. In the week of its opening, in the year 1779, ten patients were admitted, and in the first year of its existence there were about 200 in-patients and 300 out-patients. In 1878 the in-patients numbered 3043, and the out-patients 28,963. In 1779 the annual subscriptions were about £900, and the total income was under £1000. In 1878 the annual subscriptions amounted to £5400, and the total income from all sources to about £15,000. This Hospital was the first medical charity established in Birmingham, and is one of the oldest in the provinces. The Committee, are of opinion that the centenary of a charity whose history presents such an unvarying course of prosperity and usefulness should be commemorated in a practical form, and they suggest the formation of a "chronic hospital" in some part of the suburbs of Birmingham, where chronic cases may be removed for treatment from the General Hospital

thus affording more room in the latter building for the reception of acute cases. In the present state of commercial depression the Committee very wisely intend to forbear from making any direct appeal to the public for donations for this purpose; they will, therefore, only take measures to secure a suitable site for the proposed building, and wait for better times before actively proceeding to carry out the establishment of a permanent record of the centenary of the Birmingham General Hospital.

MR. ERASMUS WILSON, F.R.S.

AFTER the distribution of the prizes gained at the tenth annual exhibition, held by the Turners' Company, of specimens of turnery, the honorary freedom and livery of the Company were conferred on Mr. Erasmus Wilson, "in recognition," the Company stated, "of his liberality to the nation, through which, in concert with our fellow-turner, Mr. J. Dixon, C.E., he transported from Alexandria to the banks of the Thames in London the obelisk of On, long waiting for such public spirit."

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

ON Saturday, 4th inst., Professor Joseph Lister, of King's College, London, distributed the prizes to the successful students of the above school in the large theatre of the Medical Institution. The following is the prize list:—Lyon Jones Scholarships—Messrs. R. Honeyburne, A. H. Wilson, A. Barron, J. W. Ellis. *Winter Session*: Third year subjects (Medicine, Surgery, and Pathology)—G. J. Jones, Silver Medal; A. Houlgrave, Bronze Medal. Second year subjects (Advanced Anatomy and Physiology)—A. Barron, Torr Gold Medal; J. G. Brown, Bronze Medal; J. W. Ellis, First Hon. Certificate; R. Williams, Second Hon. Certificate. First year subjects (Elementary Anatomy and Physiology and Chemistry)—A. H. Wilson, Bligh Gold Medal; W. C. Garman, Bronze Medal; J. R. L. Dixon, Hon. Certificate, and S. G. Sharpe, Hon. Certificate (equal). *Summer Session*: Senior subjects (Medical Jurisprudence and Midwifery)—Laimbeer, Bronze Medal; Barrow, First Hon. Certificate; Joseph, Second Hon. Certificate. Junior subjects (Botany, Materia Medica, and Practical Chemistry)—J. W. Ellis, Silver Medal; Maughan, Hon. Certificate. Extra prizes in Practical Midwifery (given by R. Galloway, Esq., and Dr. Collis Anderson) and in Systematic Midwifery (given by the lecturer) have been awarded to Mr. Searancke and Mr. Laimbeer. Histological Prizes—A. Barron and J. G. Brown (equal). Royal Infirmary Clinical Prize—Surgeon's Prize, A. Houlgrave. Students' Debating Society's Prizes—First Essay, A. Barron, "Mesmerism"; Second Essay, T. Leicester, "Tobacco." Debating Prizes—First, A. Houlgrave; Second, Griffith Jones. Reports of Medical and Surgical Cases—W. Renner. At the conclusion of the distribution Professor Lister gave a demonstration at the Royal Infirmary of his method of operating under antiseptic precautions, by removing a fatty tumour from one of the patients of that institution. A very large number of medical men and students attended this demonstration, in the course of which Professor Lister strongly insisted on the absolute necessity of a most rigid adherence to all the minute precautions found requisite in order to the exclusion of an unpurified atmosphere, mentioning instances, which had come under his own observation, where operators, while professedly carrying out his system, had yet made such obvious omissions as were capable of vitiating the entire results. In the morning Professor Sayre had also given a demonstration, before an equally large audience, of his method of treating spinal curvatures. As is usual, there was a dinner in the evening at the Adelphi

Hotel, under the presidency of the Chairman of the School, Mr. W. M. Banks, Surgeon to the Royal Infirmary and Lecturer on Anatomy, and among those present (numbering altogether about 140) were the Mayor of Liverpool, Professor Lister, Professor Turner, of Edinburgh, Professor Sayre, Dr. Matthews Duncan, Professor Ferrier, Dr. F. T. Roberts, Dr. Clifford Allbutt and Mr. C. J. Wright, of Leeds, Mr. Baker, of Birmingham.

THE SANITARY INSTITUTE OF GREAT BRITAIN.

It is announced that the Autumn Congress and Exhibition of the Sanitary Institute of Great Britain, under the presidency of the Duke of Northumberland, will be held at Croydon from the 31st inst. to the 8th prox. The sections of the Congress are arranged as follows:—Sanitary Science and Preventive Medicine—president, Dr. Alfred Carpenter; Engineering and Sanitary Construction—president, Captain Douglas Galton; and Meteorology and Geology—president, G. J. Symons, Esq. During the meeting, addresses in the different sections will be delivered by Dr. B. W. Richardson, Dr. Alfred Carpenter, Professor W. H. Corfield, Captain Douglas Galton, Mr. G. J. Symons, and others. The Exhibition will, as usual, include specimens of sanitary apparatus and appliances, showing the most recent improvements and inventions. The results of past examinations held by the Institute having shown the necessity for some systematic plan of technical instruction in sanitary science, the Council have decided to establish a School of Hygiene in London, to be opened in the month of November next. The course of instruction is to include: Preventive Medicine—lecturer, Dr. B. W. Richardson; Practical Sanitary Science—lecturers (Medical and Clinical), Professor Corfield and (Engineering and Construction) Captain Douglas Galton; Jurisprudence and Sanitary Law—lecturer, W. H. Michael, Esq., Q.C., F.C.S. It is proposed that each session shall occupy about twelve lectures, and the course will embrace the subjects included in the examinations of the Institute and other examining bodies. The School will be open to all classes, and to persons of either sex, the fees for the entire course being fixed at three guineas, or, if taken separately, two guineas for Preventive Medicine, two guineas for Practical Sanitary Science, and one guinea for Jurisprudence and Sanitary Law. Tickets and all information can be obtained of the Secretary, at the offices of the Institute, 20, Spring-gardens, S.W.

THE LATE JOHN GIBSON FLEMING, M.D. GLASG., F.R.S.E.

WE regret to record the death of Dr. J. Gibson Fleming, of Glasgow, on October 2, from typhoid fever. Dr. Fleming, who was sixty-nine years of age, was for many years Surgeon to the Glasgow Royal Infirmary, and Lecturer on Clinical Surgery in the Royal Infirmary School of Medicine. He had been, more than once, President of the Faculty of Physicians and Surgeons, and from May, 1863, to March, 1873, he was elected by that licencing body as their representative in the General Medical Council. Dr. Fleming was well known in Glasgow, where he enjoyed a considerable practice; and was ever active and zealous in promoting the welfare of the Royal Infirmary and the Medical School.

DR. STEVENSON MACADAM ON FILTERS.

IN the Health Department of the Social Science Congress, on the 6th inst., Dr. Stevenson Macadam read a paper on the danger of relying on domestic filters for the purification of water. Dr. Macadam declared that every filter, whether it be made with charcoal or any other material, soon becomes worse than useless. The intention of the filtering process is that all impurities shall be left in the filtering material. This goes on day after day, and "in the course

of a short time the suspended material in the filter passes into a state of putrescence." Dr. Macadam insisted upon the imperative necessity of taking every care that every filter is systematically, and at short intervals, subjected to a thorough cleansing. The warning to "clean your filters" is, we have no doubt, a much needed one; but we do not gather that Dr. Macadam added to the practical value of his paper by giving any information as to how filters may be easily and efficiently cleansed without the terrible infliction of "having a workman in" to do it; and, consequently, any good effect his counter-blast against filtration may have will probably soon die away. But it is more than probable that every filter-maker will seize the opportunity of assuring families that his particular invention is absolutely free from all the objections brought forward by the reader of the paper.

ERASMUS WILSON TRUST.

WE may remind our readers that applications with a view to lecture under the Erasmus Wilson Trust must be made to the Secretary of the Royal College of Surgeons during the present month. No applications can be received after the end of October. Any member of the College who shall have made any sufficiently important original investigations in pathology, and who, not having yet published the results, shall be ready to make his first publication of them by means of a lecture or lectures at the College, will be eligible as a candidate under the Trust, unless he be a member of the Council of the College. The intentions and conditions of the Trust will be found at length in our issue of June 21 last; and any explanations or information that may be desired will be given to intending candidates by the Secretary of the College. It may be remembered that if at the time for appointment the Council has received no applications which appear to it acceptable, it can refrain from making any appointment under the Trust at that period; and, considering how short a time has elapsed since the object of the Trust was made known, it seems quite possible that no satisfactory application as lecturer under the Trust may be received this year.

THE ROYAL SANITARY COMMISSION, DUBLIN.

THE Commission appointed to inquire into the sanitary condition of Dublin has been sitting daily (except on Saturday, Sunday, and Monday) since Tuesday week, and a great mass of evidence has been given on the various points which come legitimately within the scope of the inquiry now being held by Mr. Rawlinson and Dr. MacCabe. On Tuesday, September 30, the witnesses were Mr. Beveridge, Town Clerk to the Corporation of Dublin, and Mr. Parke Neville, the City Surveyor and Engineer. On Wednesday, October 1, Mr. James Boyle, Secretary to the Public Health Committee of the Corporation, was under examination, and gave evidence as to the value and character of the houses in Dublin, the average density of the population, the drainage, and like matters. On Thursday, the 2nd inst., Dr. Grimshaw, the Registrar-General for Ireland, was examined; and on Friday, the 3rd, Dr. Cameron, Medical Superintendent Officer of Health to the Dublin Sanitary Authorities. It is impossible for us to give the evidence even in abstract, but on the whole the picture given of the sanitary condition of the city of Dublin is the reverse of charming. Dr. Grimshaw said that he believed the house-drainage of Dublin to be excessively bad, and was sure that in a large proportion of cases it had a very injurious effect on the public health. He was afraid that applied to all classes of houses. There was nothing that could be called a system of filth-removal in Dublin like that which exists in England. He had no doubt that an organised system for the removal of house-refuse at short

intervals would be of the greatest advantage, and would tend more to improve the health of the city than anything else that he was aware of, while he doubted that it would cost more than what was at present paid for the removal of house-refuse. Dr. Cameron had come to the conclusion that the immense majority of the houses in Dublin are imperfectly sewered and the sewers badly made. In fact, the house-drains are as bad as bad can be. As a rule, waterclosets are not properly trapped and ventilated. Neither Dr. Grimshaw nor Dr. Cameron thought much evil of the Liffey foreshore, but both admitted that the state of it might be improved. Dr. Cameron expressed a very unfavourable opinion as to the state of the tenement-houses; a very large proportion of which are, according to him, in a most deplorable condition, and much overcrowded. It is satisfactory to learn that he considers the Vartry water perfectly pure and wholesome, even when it has some colour, which is occasionally the case. He was satisfied that there was no ground for charging any increase in the death-rate of the city to the use of the Vartry water. It contains about four grains and a half of solid matter for every 70,000 imperial gallons, two grains and a half of which consist of peaty substance, and the rest chiefly of chloride of potassium, which is perfectly unobjectionable. Mr. Richard Hassard, C.E., also has been examined as to a scheme of drainage devised by him for Dublin; after which the inquiry was adjourned to Tuesday, October 7.

THE APEX-BEAT OF THE HEART.

ACCORDING to Professor Filehne and Dr. Penzoldt of Erlangen (*Centralblatt Med. Wiss.*, Nos. 26 and 27, 1879), the usually accepted view, that the apex-beat is due to a systolic downward and forward movement of the heart to the left, is false. By their experiments on animals (rabbits, guinea-pigs, and dogs) they believe they have proved that this phenomenon, systolic in point of time, is due to a change in form of the contracted heart, by which it rotates *to the right* and moves *upwards and forwards*. They explain the difference between their conclusions and those of former observers, Skoda, Bamberger, and others, by the latter having confused systole with diastole, owing to the rapid movements of the heart. Their own method of experimenting is exceedingly ingenious and obviates this difficulty. After exposing the heart, they irritate the peripheral portion of the vagus nerve, and so diminish the number of cardiac pulsations. The movement which now first occurs after the interval between two pulsations is undoubtedly systolic, and that which immediately follows the first, and is itself succeeded by an interval of rest, is diastolic. By simultaneously irritating the central end of the pneumogastric nerve all disturbance of the experiment by respiratory movements is temporarily abolished. By such observations as Drs. Filehne and Penzoldt have as yet been able to make on the human subject, notably in a woman with exposed heart following pneumothorax, they believe what is true of the above-named animals is true also of man.

FEMALE MEMBERS OF THE PHARMACEUTICAL SOCIETY.

AT the meeting of the Council of the Pharmaceutical Society held on October 1, a question which has for some time agitated the Society was finally decided in the affirmative. We do not know exactly when women first formally applied to be admitted as members of the Society, but the question of the legality, and if legal, the desirability of their admission, has been several times before the Council and twice before an annual general meeting of the Society, and on all occasions hitherto the decision has been against the women, though the majorities have been very narrow. In one instance, at least, in the Council the admission of women was negatived by only the casting vote of the President. When

on Wednesday last week, however, it was once more moved that Miss Isabella Skinner Clarke and Miss Rose Coombes Minshull, pharmaceutical chemists, "having tendered their subscriptions for the current year, be elected members of the Society," there was a general consensus of opinion in favour of the motion, and after several members had spoken it was carried with only one dissentient voice. The matter has, we think, been well settled. It can hardly be denied by anyone that the occupation of a chemist and druggist is one for which women are well fitted; and if a woman has had the perseverance and courage to comply with the educational requirements of the Pharmaceutical Society, and to pass its examinations, we do not see why she should be denied such advantages and privileges as may attach to the membership. We congratulate the Society itself on the settlement of a disturbing question, and Miss Clarke and Miss Minshull on their having at last succeeded in obtaining the right to call themselves members of the Society. Query, what will be the effect of this on counter-prescribing? It seems to open a grand field for female ambition.

OPERATING FOR CATARACT.

DR. WOLFE'S method of obviating the risk of failure in cataract extractions is thus noticed in the current number of the *Centralblatt für Practische Augenheilkunde*. In cases of infantile cataract Dr. Wolfe opens the capsule, and two or three days later he removes the softened lens with a broad needle, rendering thereby the use of pumping instruments unnecessary. In senile cataract he makes, two or three weeks before, a narrow iridectomy downwards, in such a manner as not to interfere with the ciliary border of the iris. For the removal of the lens he uses speculum, forceps, and Graefe's knife, with which he opens 1" more than the third part of the corneal circumference at its scleral border, leaving a narrow bridge. Speculum, knife, and forceps are then put aside, the capsule is opened, the bridge divided with a very small cornea-knife, and the cataract removed by soft digital pressure. The use of chloroform is avoided. Traumatic cataracts, when *in situ*, are treated in the same manner: when dislocated forwards, they are extracted without iridectomy; when luxated backwards, they are brought into the anterior chamber and then removed. We recently had an opportunity of witnessing the elegant performance of this operation, and convincing ourselves of the safety of the method.

HEALTH OF SWANSEA.—The Medical Officer of Health for Swansea (Mr. Davies) has announced officially that the outbreak of fever which occurred there in the beginning of August has, as regards its epidemic character, passed away. The cases at present remaining are stated to be few in number, and for the most part restricted to the outlying districts of the borough, so that intending visitors to the forthcoming Church Congress to be held in the town may visit the locality with perfect safety. Even in August, when fever was prevalent, the annual death-rate of Swansea did not exceed 20.3 per 1000.

THE BRITISH AND AMERICAN MEDICAL ASSOCIATIONS.—Dr. Yandell, giving an account in the *Louisville Medical News* (August 30) of his experience at the meeting of the British Medical Association at Cork, says—"The British Medical Association reminds me strongly of our own. The members are, as a rule, better dressed than ours upon such occasions, and they have better complexions; but they do not speak as well as their American cousins, and in size and good looks I do not think that they have any advantage. In intellectuality of looks, like our own national medical body, they come out very strong; and there is no comparison between these two bodies and the English Parliament and the American Congress. The doctors discount the law-makers decidedly."

ABSTRACT OF INTRODUCTORY ADDRESS

DELIVERED AT THE OPENING OF ST. THOMAS'S HOSPITAL
MEDICAL SCHOOL.

By ROBERT CORY, M.D., M.R.C.P. Lond.,
Assistant Obstetric Physician to the Hospital.

THERE are two opportunities offered in these annual addresses which I propose to take to-day: first, that of saying a few words to those about to commence their studies at a hospital; and secondly, that of considering some more general subject connected with medical education.

Few studies are so interesting as those you will meet at the outset of your course, viz., chemistry, physics, botany, physiology, and anatomy. From the study of these you will learn how the more simple laws of inorganic matter are involved in the more complex ones of organic life, and how great are the works of Him who maketh all things. The spirit in which we commence work is the one which gradually grows upon us, so that we should be careful to commence it with the best motives. These should not merely be to attain high places in examinations, or fortunes, but we should also labour to advance the knowledge of our profession. In saying this, I do not wish to be thought to condemn examinations. After all has been said that can be urged against them, they still remain as the only means of distinguishing the industrious from the lazy, the clever from the stupid. Moreover, the present is the time for preparing for those degrees, which, if you neglect, you may in after years much regret. The desire for what is fast becoming the empty title of doctor is so great among many who neglected the opportunity of acquiring it in their younger days, that the Brussels M.D. is eagerly sought for. If, then, the title is likely to be of real service to you in after life, seek the honour now from a university whose degree carries with it something more than the two letters, and means what it implies—extra time and labour spent in your education.

Are all, then, to aim at the advancement of their profession? Why not?—for all can do so. But to do this you must make the spirit of inquiry one of your leading principles. One force that moves you to work must be inquisitiveness. You will then seek to satisfy this curiosity by study, by observation, and by experiment. Besides this spirit of inquisitiveness there is another which we must make our own—it is that of truthfulness. Nothing can impress us so forcibly with the importance of cultivating these two spirits of inquisitiveness and truthfulness as by noticing how strongly they have been displayed in the characters of all the men who have left their mark upon the history of science, of surgery, and of medicine. Galileo, Harvey, Newton, and Hunter may be mentioned as notable examples.

Harvey by means of experiments on animals discovered the circulation of the blood, while Hunter's inquisitiveness led him, among many other things, to experiment on the antlers of deers. (The antlers, as some of you may know, are processes of bone which grow from their frontal bone, and as the periosteum is the source from which the new bone is secreted, the antlers necessarily remain covered with this as long as they increase in size. Besides this covering they have also the integument, which is carried outwards as they grow. As soon as they have attained their full development, the covering of periosteum and skin dries up and is rubbed off, and the antler then consists of bare bone. The covering on the growing antler is called the velvet, and is largely supplied with blood). Hunter, knowing the source of the blood-supply to the velvet, was curious to know what would be the effect on a growing antler if he ligatured the artery which supplied blood to it. He tried the experiment, and was surprised to find that three weeks after the operation there was as much blood going to the velvet as before. To ascertain how this could be, he had the animal killed and sent up to him, and on dissecting the part he was astonished to find that small branches had become enlarged so as to permit as much blood to pass through them as passed formerly through the main artery. Hunter was not long before he turned his newly acquired knowledge to a useful purpose. He had at that time a man under him at St. George's Hospital suffering from popliteal aneurism

the treatment for which in those days was either laying the aneurism open and tying the artery at both extremities of the sac (an operation from which only about 5 per cent. recovered), or amputation of the limb. Hunter, remembering his experiment on the deer, thought that if he tied the artery of this man in the thigh, he would divert the blood from the aneurism, and the man's leg would still be supplied with blood by the enlargement of collateral branches. He performed the operation and succeeded, and thereby one of the greatest advances in the surgery of those days was made.

It may be asked, are we to set no bounds to this inquisitiveness? It is hard, indeed, to conceive any subject upon which it would be wrong to indulge our curiosity, but although all knowledge comes within our legitimate aspirations, it obviously does not follow that all means to attain that knowledge are also legitimate. Much has lately been said about the rightfulness of experiments on animals. We have seen how the popular sentiment on this subject has been fanned into flame by gross exaggeration, by careless, sometimes wilful misstatements, by pictorial caricatures placarded about the streets; and the result of this has been the passing of an Act of Parliament which has practically put a stop to the attainment of knowledge through the means of such experiments. There have not been wanting those who, for reasons other than the love of the brute creation, have joined in the battle against science, and have been secretly rejoiced at her discomfiture. Surely it would have been more reasonable to have passed a law against fox-hunting or some other kinds of sport rather than against vivisection. What torture can be greater than that of the poor hunted animal straining its last breath for life; and for what object? Merely to give zest to a ride across country! But although fox-hunting, be attended with much distress to the hunted animal, yet it does not kindle the ire of many of the opponents of vivisection. Let us not, however, rail against our adversaries without considering their objections. It is stated by them that we have no right to torture or even take the life of an animal for our own benefit. This statement, however, is variously qualified. Some would say that we may not kill animals except for the purposes of food; others would allow noxious animals to be killed. As we reason upon these statements, the fact soon becomes apparent, that the more we try to defend such a principle, the greater are the extravagances we are led into, so that we are ultimately bound to admit that animals have not the same rights as man, and that he is justified in making use of them for his advantages, but to what extent still remains to be reasoned upon. That there is a limit, no man possessing the natural attributes of his nature will deny. That this limit is exceeded when we desire to extend our knowledge by experiments upon them, can only be maintained by showing that the knowledge so obtained has previously been of no service, or of comparatively little service, to him. Is this true? We have already seen that Harvey vivisected for the purpose of establishing his discovery of the circulation of the blood; that Hunter did the like. Sir Charles Bell was another vivisector, and to him we are mainly indebted for the discovery of the different functions of the anterior and posterior roots of the spinal nerves. Sir Astley Cooper also can be named in the same category, besides many others. A clear instance of useful knowledge resulting from such experiments is furnished by Galvani. From his experiments on frogs and other animals came the knowledge of the galvanic battery. The telegraph and other applications of galvanic electricity need no comment.

Another instance of the value of vivisection is seen in the present knowledge of the transfusion of blood. You may ask, perhaps, why have I troubled you with these remarks on vivisection? It is because you will at some future time be entrusted by the State with many responsible duties, but though the State will expect those responsibilities to be adequately discharged, she has lately taken from us one of the best means of advancing the knowledge she requires at our hands. It is true the present law is not prohibitive, but its provisions are such as to almost extinguish the study of practical physiology in this country. The large deputation which waited on the Home Secretary three years ago to protest against the passing of the law is sufficient evidence of the feeling of the profession on the matter.

If we can be trusted by the State with the almost irresponsible treatment of diseases, surely it is not too much to ask her to trust us in the matter of vivisection.

It is our duty to obey the law, but we can at the same time urge for the repeal of an unjust one, and there is good reason to expect with success when the ignorant clamour that called for it has abated.

ABSTRACT OF INTRODUCTORY ADDRESS

DELIVERED AT THE OPENING OF THE SHEFFIELD MEDICAL SCHOOL.

By SIMEON SNELL, L.R.C.P., M.R.C.S.,

Ophthalmic Surgeon to the Sheffield General Infirmary; Lecturer on Anatomy and Diseases of the Eye.

AFTER welcoming the new students to the School, and intimating that it was not his intention to preach a sermon or homily on good conduct, preferring to leave it to their common sense to steer clear of the quicksands and shallows that might ground them, as well as the "sharks" in the shape of lazy, idle fellows, the bane of college life, the lecturer proceeded: "Happy are those who have laid in a good general education before commencing their medical studies. Those of you who may have devoted attention to any branch of natural or other science will do well not to neglect such opportunities as present themselves for manifesting your interest in them. In after years the monotony of practice and the wearisomeness of everyday life will no doubt be pleasantly relieved by those who are able to turn their attention in spare moments to any extraneous subject, and find solace and recreation therein. While upon this point I would urge on you the importance of not becoming negligent of any knowledge you may have acquired of modern languages. In these days of free interchange of thought and practice between ourselves and our continental *confrères*, and in our literature so much indebted to earnest workers both in Germany and France, the advantage of these latter languages to the truly zealous student can hardly be overestimated. As members of a liberal profession your education should also be liberal and general, and not merely confined in extent and character to satisfy the modest requirements of a preliminary examination. At present a student may go through his curriculum without a knowledge of Greek, to which so many medical words owe their derivation, or German, which is the language of a nation of pioneers." The necessity for thorough honest dissecting-room work was insisted upon as the only way to learn anatomy, and the importance of physiology was alluded to. Botany was said to be out of place in a medical curriculum, and chemistry was thought to be better made a subject of preliminary education; while, respecting midwifery, the proposal emanating from the Obstetrical Society for a more lengthened period devoted to it was supported. It was, moreover, deemed unfortunate that it was possible for one to pass through the curriculum and become qualified with little knowledge of practical obstetrics. The number of cases necessary to be attended was deemed too small to supply the requisite experience in the more unusual ones. In dealing next with hospital practice, the student was strongly advised to devote himself earnestly for the first two winters to anatomy and physiology. "Attendance at the medical school during this period, it was said, should be regular and constant, on hospital practice occasional. The two winters allowed for learning anatomy were ample if properly used, but opportunities then lost were with difficulty regained. After this, and when their First College was passed, was the time for them to throw themselves with zest into clinical work at the hospital." Speaking afterwards as to the spirit in which their studies should be pursued, the lecturer proceeded: "There is no royal road to the study of medicine, but to obtain a correct knowledge of your profession and to become good practitioners of your art much steady, hard work is necessary. I know it is fashionable with some to take life easily, neglect a great part of the session, and then by a spurt try to regain what has been lost by previous indolence. This plan of working by fits and starts may be, and probably is, in some instances successful as a means of passing examinations; but it is not the course I should recommend you to pursue, for

"To climb steep hills requires slow pace at first,"

and by steady, regular, and sustained labour more is attained than by brief periods of hard work succeeded by

longer ones of comparative rest. An eloquent and distinguished teacher has recently forcibly described the manner in which your work should be undertaken. After mentioning that steady, moderate industry achieves greater results than fitful application of the severest kind, he says, 'It's not the man who wastes weeks or months in frivolous amusements, and then makes up for lost time by spasmodic efforts of fierce labour—the midnight oil burning before him, black coffee by his side, cloths steeped in vinegar cooling his fevered brow—'tis not this man who succeeds in raising himself to eminence, or in adding his mite to the sum of previously acquired knowledge; no, 'tis the steadfast toiler who never wastes the day he cannot recall, who (in the fashion of Titus of old, who marked each day by an act of goodness) never allows twenty-four hours to slip away without having performed his act of work—"who hives wisdom with each studious day." 'Tis the old story of the perpetual drop, drop, drop, eating its way through the rock, while violent occasional torrents pass over leaving its surface unscathed.' This ably, I think, sets forth the spirit in which your work should be performed. Work steadily, and with the desire to learn your profession well, and success is yours. One is sometimes asked, and I think pained when so asked, how much is required of you to pass your examinations. But it should be borne in mind that your duty is to become conversant with your profession, and not merely to pass examinations. The latter are but the necessary gates to be passed, and only minimum tests of your capability to practise your calling. When you recollect the seriousness of your profession in holding the balance of life and death in your hands, I trust none of you will merely wish a proficiency sufficient to carry you safely through the different portals. Moreover, the knowledge you now lay in is your capital, and it is your commodity, which, with diligence and discretion, you put out to usury in the exercise of your profession. The way to pass your examinations is to prepare for practice, and not for the examinations themselves. The knowledge you require is one that will stand you good service at the bedsides of your patients, and now it is as students by proper use of your opportunities you gain the experience so conducive to that end.

" 'Experience is by industry achieved,
And perfected by the swift course of time.'

"And now, gentlemen, I would, with your permission, pass on to a subject of medical science requiring, I believe, more attention from the student than it generally receives—I mean ophthalmology. There are few of our medical schools—ourselves among the number—in which a course of ophthalmic lectures do not appear in the prospectus. None of the examining boards that I am aware of require attendance on these lectures, and thus it is that, not being compulsory, they are not so much taken advantage of as they should be. A memorial from ophthalmic surgeons has recently been presented to the General Medical Council, urging the making of ophthalmology of more importance in medical studies. And if any further evidence were required to demonstrate the inertness of the Medical Council in its present constitution, I think it might be found in the answers of the various examining boards consequent on that memorial. The learned Mackenzie, it should be remembered, had presented a memorial of similar import nearly a quarter of a century previously.

"Ophthalmology has during the last five-and-twenty years undergone a complete revolution. The discovery of the ophthalmoscope has rendered clear and distinct what was before unknown or little appreciated concerning many diseases. It possesses an extensive literature and a host of earnest workers, and to obtain a complete knowledge of it, and its multiform operative procedures, requires much laborious and continuous study, and can only be pursued by those specially impelled by aptitude, opportunity, or circumstance. Cases, the subjects of eye-disease, will, however, meet you in practice, though it may not be frequently. And what is urged is, that you should acquire such a knowledge as will aid you in the recognition of disease and its treatment. Nor indeed is this all. A study of it will beget in you habits of precision, as ophthalmology requires and compels accuracy in observation, and in one of its branches—that dealing with the anomalies of refraction and accommodation—closely approaches an exact science. I shall next proceed to show how in connexion with general diseases a knowledge of ophthalmology is of importance.

"One of the most observing and erudite of the physicians of our day, Dr. Hughlings-Jackson, has said he considered it the luckiest thing in his medical life, that he commenced the scientific study of his profession at an ophthalmic hospital. The discovery of the ophthalmoscope—an Englishman's discovery, be it understood, though, by an ophthalmic surgeon's supineness in not recognising its value, re-invented by the German Helmholtz—by throwing a flood of light over a tract of waste and in darkness, produced an upheaving in medical science second only to Laennec's immortal contribution to our means of investigating disease.

"The optic nerve and retina being, as the history of their development demonstrates, portions of the brain projected as buds or vesicles towards the surface, the ophthalmoscopic appearances they present are necessarily of interest and value in cerebral disease. Thus may be mentioned the double optic neuritis so frequently indicative of coarse brain disease as apart from the monocular neuritis of less serious import. And considering that intense neuritis may exist with little or no diminution of vision, the routine use of the ophthalmoscope has been urged, and rightly so, in all cases of suspected brain-lesion. This condition, without impairment of sight, is necessarily more frequently met with in physicians' than in ophthalmic surgeons' practice; but I imagine everyone seeing much of eye diseases must occasionally have noticed cases of this sort as well as those in which the visible mischief seemed more than was accounted for by the actual loss of sight. Among the earlier symptoms also of locomotor ataxy, atrophy of the optic nerve has been observed. It is not, however, merely in cerebral and spinal diseases that the ophthalmoscope is of general medical service. The retina, one of the most delicate structures in the body, seems peculiarly liable to become the seat of organic change in consequence of diseases affecting other organs or the blood itself. The list is a long one. Among the diseased conditions producing visible alteration in the retina may be mentioned those affecting the kidneys and heart, as well as the following:—Leucæmia, syphilis, diabetes mellitus, hæmorrhagic diathesis, pernicious anæmia, purpura.

"It is by no means infrequent for patients perceiving failure of their sight to seek advice respecting it, and for the peculiar form of neuro-retinitis, with its characteristic white glistening patches and hæmorrhages, to be discovered, and the patient found for the first time to be suffering from Bright's disease, and this when other symptoms alone were not sufficiently pronounced for recognition. There is again another kind of case in which the ophthalmoscope proves of service in kidney disease. Occasionally, in a well-known subject of albuminuria, sight may be suddenly lost. This condition may be what is called uræmic amblyopia, and would be recognised by the ophthalmoscope, and distinguished from the more serious lesion already mentioned by the absence of visible mischief, and the friends' anxiety relieved by a hopeful prognosis. The discovery of apoplectic patches in the retina should be referred to as pointing often to grave apprehension as to the state of the circulatory system. Another condition also worthy of note is that of embolism of central artery of the retina. The effects of the plugging of an arterial trunk or one of its twigs, thus plainly seen in the fundus oculi, are of importance as showing what occurs in consequence of emboli in other nervous tracts. I pass by other interesting retinal indications discoverable by the ophthalmoscope, as well as the form of optic nerve lesion associated with the effects of tobacco and alcohol—of consequence as they are, as illustrating the results of these agents on the nervous tissue,—for time will not permit me to further enter upon them. Some few years since it was stated that the number using the ophthalmoscope in medical cases could be counted on the fingers of one hand. That this no longer is the case is evident, and among the many workers at medical ophthalmology are to be found those who, by their steady, persevering labour, have made our knowledge of the subject what it is, and have left their names deeply imprinted on its surface. Respecting the ophthalmoscope as an 'arm of precision,' one writer some time since said—'Whatever may prove to be the practical use of the ophthalmoscope in detecting diseases of the brain or spinal cord, it has for me this great charm, that its use must favour a spirit of industrious observation, and must favour also that wholesome disposition of mind which welcomes any facts, however far away they may seem to be from traditional doctrines and dignified theories.' It is not, however, merely with the use of the

ophthalmoscope that we are concerned; I pass on, therefore, to the muscular apparatus. To insure perfect sight, necessity exists in the eyes for their exact adjustment to allow of impressions being received on a certain part of the retina. Any deviation from this is productive of derangement of vision. Here also, on account of the symmetry of the two organs and their consentaneous movements, slight degrees of paresis of the muscles are noticeable, which in other and differently arranged parts might escape detection. The diplopia caused by these deviations is often accompanied by vertigo, more distressing often in those cases in which the paresis is observable only after careful examination. In estimating the cause in any case of vertigo the possibility of its being ocular in its origin should not be overlooked; the ready manner, also, in which the smallest disturbances in the third, fourth, and sixth cranial nerves can be recognised has been of signal service in the diagnosis of intracranial mischief. The association of a form of corneal inflammation with peculiar knotted and peggy teeth, indicative of hereditary syphilis, has been of use in aiding to assign to their proper causes ailments of doubtful character. Before I turn from this subject I must refer to anomalies of refraction. Hughlings-Jackson in a recent address mentioned cases with distressing head symptoms which were relieved by the correction of the refractive errors by the proper adaptation of spectacles, and every ophthalmic surgeon must, I imagine, have met with similar ones and be familiar with the relief afforded by the appropriate treatment. The development of pathological inquiry has, it is well known, been fettered by our imperfect knowledge of healthy functions. The manner in which the various ocular structures are open to inspection, and in a way which is nowhere else attainable, has afforded it valuable assistance. I would refer only to the help gained to the pathology of inflammation by that process set up artificially or by disease in the cornea. In this brief and necessarily imperfect survey, enough has, I trust, been said to illustrate the value of ophthalmology to, and the influence it must have on, general medicine."

The next portion of the lecture was addressed particularly "to those students soon about to commence the responsibilities of their profession." After expressing his hope that in reality they would always remain students, some observations were made as to their relations to the public and to the profession; duties to both, it was said, "devolved upon them directly they became legally qualified practitioners." Some of these duties to the public were discussed, and then the lecturer proceeded: "I am not, however, aware that we owe it to the public to ask of them as little remuneration as possible for our services, as some by their actions might lead people to suppose. I refer particularly to the style of practice sometimes adopted under various guises, in which patients are attended for absurdly low charges, barely adequate for the supply of decent drugs, and, if such are used, not enough to provide the merest remuneration to the professional attendant. It is well known that the public estimate of a professional body, like that of individuals, is in great measure in proportion to the value they set on themselves, and thus it is that the reduction of medical fees to such infinitesimal ones in these instances will, if the practice be continued, be felt throughout the entire profession, and produce injurious effects. I have thus touched upon this subject because in commencing practice temptations may beset you. I trust, however, you will cast them on one side, and discountenance any such proceedings as I have mentioned as being injurious to your profession and of very questionable benefit to the public. In all your and our dealings with the latter let our conduct be characterised by straightforward manliness, and while remembering what is due to it, not forgetful of our obligations to our profession. May the words which Shakespeare puts into the mouth of one of his chief characters be each of ours:

" 'Tis not my profit leads mine honour,
Mine honour it."

The remainder of the lecture was devoted to pointing out the duties they owed to their profession, and urging them to be jealous of its interests. "Directly," it was said, "you are enlisted within its ranks, it not only demands that nothing be done by you derogatory to it, but moreover requires of you that your energies be given to the advancing and upholding of its interests."

The address was brought to a termination as follows:—"I have now, gentlemen, touched upon a variety of topics:

had time permitted, several of interest still presented themselves. The agitation for more complete education and a more competent supreme head in medical affairs has culminated in the present Select Committee on the working and constitution of the Medical Council, and the unity of examining boards. Much has already been said and written on this very important subject, and one might have been tempted to add his quota to the discussion, believing as I do in the desirability of, and necessity for, legislation, but I feel I have already occupied your time and taxed your patience sufficiently. I thank you, therefore, for the kind attention with which you have listened to my address. Descartes, I believe it was, who said that 'if ever it became possible to perfect mankind, the means of doing so would be found in the medical sciences.' In conclusion, I would express the hope that you may find comfort and joy in belonging to such a profession; that success may attend you; and that some among you, at least, may become ornaments and excite the just pride and emulation of those around you. Now is your opportunity for laying the foundation of all these, or by negligence courting the reverse.

" 'There is a tide in the affairs of men,
Which, taken at the flood, leads on to fortune;
Omitted, all the voyage of their life
Is bound in shallows and miseries.'"

And again—

" 'Men are sometime masters of their fates;
The fault is not in our stars,
But in ourselves, that we are underlings.'"

ABSTRACT OF

INTRODUCTORY ADDRESS

DELIVERED AT THE OPENING OF THE LEEDS SCHOOL OF
MEDICINE.

By EDWARD ATKINSON, M.R.C.S. Eng.,
Surgeon to the Leeds General Infirmary.

For many years the subject of medical education has been growing more and more involved. The subject-matter taught has increased in quantity, the courses of lectures have been multiplied, and the pass examinations have become more stringent, while the time spent on preparation is diminished from six years (including the five years' apprenticeship and one of lectures and hospital practice) to four years for everything. These facts have naturally brought about a revulsion of feeling on the whole subject, and the general outcry now is for simplification both of the curriculum of study and the pass qualification. The thoughts of our reformers are deeply exercised at the present moment on these and sundry other vexed questions of a like nature. Another session of Parliament has passed without our obtaining the long-needed new Medical Act, to which we look for emancipation from some of our difficulties; but "it is a long lane that has no turning," and our hopes can scarcely be much longer deferred. At the present moment intending students and their parents are bewildered in the attempt to make choice among the many corporate bodies as to which qualification is to be aimed at, for they soon learn that the requirements for their several examinations vary considerably; that not only the standard of excellence demanded is very different, but that the amount of attendance on classes is greater for some qualifications than for others. Now, should the new Bill become law, much of this perplexity would be done away with by the establishment of a conjoint board, whose examination—sufficiently high in standard to be a real test of the candidate's proficiency—would be uniform throughout the whole kingdom, and admit men to the exercise of the profession with a diploma equivalent to the two which are now necessary for the double qualification in medicine and surgery. Whilst this pass-examination would thenceforward be all that was needful to enable a man to practise, it would not, of course, prevent any who were anxious for further distinction to graduate in either branch of the profession at one of the universities, or to acquire the diploma of membership or fellowship of any special college or corporation. In the case of intending graduates, however, it would still be necessary, as now, that their decision should be taken from the first, because all the universities (except London) require the student to spend more or less of his time of study in their respective schools; while in the

case of the University of London, though no residence is required, there is a preliminary scientific examination, which, as well as the matriculation, ought to be passed before beginning professional study. I say "ought" advisedly, for many students make the mistake of attempting it after entering a medical school, only to find that they are overwhelmed with a multiplicity of subjects, and too often also that in trying to do two things at once they have done neither well. It is, indeed, devoutly to be wished that those purely scientific subjects, certificates of attendance on which are required by various bodies, such as inorganic chemistry, biology (including botany and zoology), and physics, should in all cases form part of the preliminary general education and examination, and be dispensed with before commencing the special study of human anatomy and physiology—instead of being included, as some of them now are, in the first summer courses. This desired reform is even now under consideration, and will afford, let us hope, one of the simplifying elements in the curriculum of "the good time coming." Were these impediments removed from our programme, what valuable time should we not gain in winter for practical anatomy and dissections, and in the summer for practical physiology and the histological use of a microscope. Besides, the continuance of dissection through the summer session—the inconvenience of which, and all objection on sanitary grounds, are now overcome—might with great advantage be made the rule instead of the exception. For there can be no doubt that the two winter sessions which a student has for the learning of his anatomy before presenting himself for his primary examination are—even for the most industrious and energetic, barely sufficient in these days, when the summer intervenes, with its new subjects, to distract—and the long vacation to divert—his mind, and so give him six months in which to forget all he has learned. Well then, gentlemen, we are fallen on days of transition and development; and I trust most of the dangers are, or will eventually prove to be, in the way of progress. Sometimes we are urged by the *laudatores temporis acti* to fall back upon the experience of the "good old days," and take a leaf out of the book of our ancestors; and undoubtedly there are many cases where we might do so advantageously. We must, however, carefully consider whether new surroundings do not materially modify the value of such advice in a given case. The question has been recently asked, "Is it desirable that a certain period, previous to admission to a medical school, should be spent (by an intending student) with a general practitioner, in the form of an 'articled pupilage'?" If so, (a) how long? and (b) which of the preliminary scientific subjects of study should form part of his training?" Now, this question appears to indicate a feeling that we have lost some good thing by the abandonment of the old apprenticeship system, and to suggest whether a partial revival of it might not be made to fit in with the preparation for a preliminary examination in science. But I venture to think—and most medical teachers, I fancy, would agree with me—that it would be beginning at the wrong end. For, first, the majority of students enter a school of medicine within a year after leaving school, and, unless these science subjects have been included in their general education, they will want the whole of their time during that year to get them up, without any distraction from assistant's work. Next, if tutorial aid be needed, why seek it at the hands of a general practitioner, whose time is probably engrossed by his profession, to say nothing of his questionable fitness to act as a science-master many years after those subjects have ceased to occupy his mind. And thirdly, what useful purpose can be served, either to the articulated pupil or his master, to say nothing of his patients, by setting a youth fresh from school to compound medicines before he knows anything of practical chemistry or the properties of drugs; or placing him in the false position of having to fill a gap at a case of midwifery, without the most elementary knowledge of anatomy and physiology? Until he has passed his "preliminaries," and has been duly registered as a medical student, there can be no doubt that home is the best place for him. And if then he be placed with a medical man, it should be simply that he may enjoy the privilege of a settled residence, and the advantage of such counsel and assistance in his studies as his house-master is able to give him. No assistant's work, however slight, should be expected of him until he have concluded his second winter, and passed his primary examination in anatomy. However possible it may have

been to combine the two in former years, when this examination was comparatively lax, it is certainly all but impossible now, when the test is so severe that a man's whole time is required for school work, hospital and private reading, so as to enable him to go up with comfort to himself and the confidence of his teachers that he will pass. While, therefore, as we know is the case, pecuniary circumstances may compel some men to take assistant's work before completing their studies, I would strongly advise none to do so until they are safely through the first portal. But I have been led, I fear, into too much detail, and must not tax your forbearance by pursuing further this topic of medical education. And yet I would for a moment advert to a subject in connexion with it which has occupied public attention lately. It has long been a reproach to English medical students that so few of them graduate in medicine and surgery, compared with the proportion of those who do so in Scotland and Ireland. Nor has the explanation been far to seek. The length of time required, the necessity for residence, and consequent expense at the older universities; and in the case of Oxford, the further need for graduating in arts before taking a medical degree, will abundantly account for it. The University of London, whose charter dates from 1836, was intended to meet this want by throwing open its degrees to all who had matriculated there, no matter where their subsequent education was completed. But so numerous and difficult have the examinations been made, that, notwithstanding this concession, those only who (as was well said the other day) combine the rare advantages of having the best heads, the longest purses, and the most time, can aspire to what is justly styled the "blue ribbon" of the profession. Under these circumstances it may be supposed that the recent announcement to the effect that the Privy Council were being memorialised to grant a charter for a new university for the North, which among other things was to confer medical degrees, was hailed by many as the harbinger of good news, and that the deficiency so long lamented was about to be supplied. It was believed that the urgent demand for a popular and accessible degree in medicine was about to be satisfied. It was hoped that the conditions would prove to be such as would bring the boon within reach of hundreds who were fully prepared to prove their fitness, but who could not afford either the time or the money which the London degree demanded. It was expected that a scheme which emanated from so great, noble, and liberal a body as Owens College at Manchester, would be characterised by a generous desire to assimilate its plan to that of the German universities, in so far as freedom to all comers is concerned. But, as Jupiter condescended to court Danaë under the similitude of a golden cloud, so the Manchester Jove so successfully enshrouded his advances in mystery, that his *innamorata* never recognised his true divinity till she was about to be embraced. Then it was discovered that the blandishments of the god were not quite so disinterested as had been imagined. It was found not only that the powers sought by the Victoria University would limit their degree to the students of schools affiliated with her, but that the terms of affiliation were such as could not for many years to come be complied with by any other school than Owens College. In other words, the college stood declared as the university.

ABSTRACT OF THE INTRODUCTORY ADDRESS

DELIVERED AT THE OPENING OF THE LIVERPOOL ROYAL
INFIRMARY SCHOOL OF MEDICINE.

By J. WALLACE, M.D. Edin.,

Lecturer on Midwifery and Diseases of Women; Physician, Thornton
Wards, Royal Infirmary.

AFTER certain prefatory remarks, and referring especially to the distinguished visitors present, Dr. Wallace proceeded:—

And now, let me say a few words with reference to the Royal Infirmary and School of Medicine, and particularly to the close relationship which exists between them, and the influence this confers upon both for their mutual advantage.

The Royal Infirmary was founded in 1745, opened for patients in 1749, and its objects were clearly stated as having "not any partial view in serving the town, for which a very

small building would have been sufficient, but to make provision for the many objects that appeared in distress from all parts of this nation and Ireland."

The School of Medicine was founded in 1834 by a grand old band of workers, whose memory will ever be held green in its annals. But the prosperity of the School has largely depended upon the patronage and practical aid of the Committee of the Royal Infirmary, from the time they granted the site upon which it is built until the present day, when it is now well equipped with all the departments of theoretical and practical teaching required by the examining bodies. Some gentlemen may be inclined to ask, Have you been able to give to the Infirmary any return for the benefits so freely conferred upon you? This important question can be answered in the affirmative in a very decided manner, by referring to the replies to a series of inquiries which I entered upon some time ago, and which I sent to nearly all the metropolitan and provincial hospitals in England and Scotland. The following were the questions:—

1. Do you find it advantageous or otherwise to have a medical school attached to your hospital?

2. Under existing conditions do you think the work of the hospital could be done as effectually without the aid of the students and school generally, and with as little expense?

3. With reference to the patients, do you think their diseases are more minutely inquired into, and treatment better carried out by clinical teaching, and under the observation of many, than could obtain under other conditions, namely, where there is no medical school?

4. Does teaching necessarily demand a higher class of physicians and surgeons, and, if so, what is the effect upon the reputation of the hospital?

5. State any disadvantages arising from the connexion of a medical school and hospital, so far as the welfare of the latter is concerned?

I received replies from thirteen hospitals. They are all in favour of association with medical schools for mutual help and benefit. So decided was this opinion in Glasgow, that when the University School of Medicine was removed from the Royal Infirmary to the Western Hospital, the authorities of the Royal Infirmary at once set about the establishment of another school of medicine, which they have now completed.

We, of the Royal Infirmary and School of Medicine, are therefore at one on this matter with the great centres of medical education elsewhere, and we trust the process of evolution and growth has not yet come to a standstill, but, on the contrary, that it has just begun to advance even to a greater development. This we hope to see in the near future, when our coming University College of Liverpool has seen the light. A grand opportunity now exists for a wealthy citizen to make his name here immortal. Owens College in Manchester is a fitting example. But we do not need to travel so far from home. Is there no one who has the ambition, the courage, the self-sacrifice, the scorn and disregard of Mammon, to imitate the noble example of Sir William Brown, who built our Free Library, or of Sir A. B. Walker, who has but just recently finished that splendid pile, the Art Gallery?

The concluding portions of Dr. Wallace's remarks were devoted to some of the recent advances in our knowledge of the diseases of women.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—The first meeting of the session will be held at 1, Adam-street, Adelphi, on Friday, October 17, at 8 p.m., when an inaugural address will be delivered by the President, Dr. J. S. Bristowe.

At the Wragby Petty Sessions, Lincolnshire, on the 30th ult., Robert Henry Ormston, of Bardney, was summoned by Mr. Henry Gilbert for practising as a surgeon, and using the title, addition, etc., of "L.R.C.P.," at Bardney, on August 19 last, he not being a qualified practitioner. Defendant did not appear. It transpired from the evidence that the defendant had been acting as vaccination officer for the Bardney Poor-law District, and he also gave a certificate of death. The Bench inflicted a fine of £20 and costs; but it may fairly be inquired what evidence of the defendant's qualifications was asked for by the Bardney Poor-law Guardians before allowing him to act as vaccination officer.

FROM ABROAD.

TREATMENT OF SYPHILIS IN NEW-BORN INFANTS.

PROFESSOR PARROT delivered the following lecture (*Gaz. des Hopitaux*, No. 100) at the Hospice des Enfants Assistés:—

The history of the indications which should be followed in the treatment of syphilis in new-born infants has in general been remarkably complicated, whereas simplification is the more required, inasmuch as we have to do with little children in whom hygiene and a very small number of pharmaceutical preparations furnish excellent results. The therapeutics, comprising questions of great practical interest, may be considered under distinct heads.

1. Should we treat infants born of syphilitic parents, even when such children exhibit no apparent traces of a syphilitic diathesis? In a word, ought we to institute preventive treatment in a new-born infant suspected of heredity. Authors are not agreed upon this grave question. Some recommend such treatment without any hesitation; but they make some distinctions: (1) if the father alone is syphilitic, it is useless to treat the infant; (2) if the mother has been syphilitic, but has been treated during pregnancy, the child need not be treated; (3) when both parents are syphilitic, or when the mother alone is affected and has not been treated during pregnancy, the infant should be submitted to specific treatment. All these distinctions belong to medical casuistry, and are only founded on disputable theories. The infant is just as syphilitic when its father alone is the subject of the disease as when the mother is so; and I lay down this formal rule, viz., that whenever I am in presence of an infant born of parents, one or both of whom are syphilitic, I never treat it when it exhibits no trace of syphilitic infection. Whatever may be the condition of the parents, their children are not necessarily the subjects of hereditary syphilis. I do not believe that in order that we may treat an hypothetical disease we have the right to expose an infant to the risks of a treatment which is not inoffensive, especially for one newly born. In all cases, if the child remains unaffected for a fortnight or a month, it is a proof either that it is not poisoned, or, if it is so, it is only in a benign manner, and that we shall easily combat a virus that manifests itself with so much difficulty.

2. The infant should be placed under treatment (1) when there are signs of syphilis manifest on the skin, mucous membranes, or bony tissue; and (2) when, in the absence of these signs, chronic and obstinate gastro-intestinal disturbances exist, resisting all ordinary treatment. Such disturbances are, in fact, the indication of visceral syphilis, and we should always bear this hypothesis in mind when we observe them. This is a positive rule, and I have seen an infant die of them, without the idea having ever occurred of treating a visceral syphilis of which there were no external signs, but which was found to exist at the autopsy. When the infant exhibits traces of apparent syphilides, we must still distinguish two cases, according as these signs are precocious, appearing at the time of birth or very soon afterwards, or when they occur later, constituting, for example, lenticular syphilides and syphilis of bone. It is essential that the therapeutical opportunity should be clearly determined. In the first category we meet with the most numerous and the most important manifestations of syphilis, the early syphilides. The infant is almost always very young, bringing the syphilis with it at its birth. The diathesis is then very active, very ardent, and will rapidly attain the viscera if it is not treated. In these cases mercury is the sole efficacious medicine, and no other should be thought of. Its external employment is the most ancient, for originally syphilis was treated only by frictions, and this method continues to be the best, the most efficacious, and the most prompt. Frictions may be employed when the infants reject all that is taken into the stomach, or are the subjects of intestinal disturbances which the mercury would only aggravate, adding to the existing atrophy. There may be contra-indications to the external use of mercury when a general eruption with ulcerated patches exists, but such cases are quite exceptional. Syphilis has its places of predilection, and never invades the armpits or the lateral parts of the trunk, and these are precisely the parts most suitable for inunctions, which

should not be made at the thighs or groins. The double mercurial ointment, consisting of equal parts of lard and mercury, should be diluted with two additional parts of lard, and of this three grammes (forty-five grains) may be used daily for an infant until it is a month old. After this age, and until the sixth month, the ointment may consist of one gramme and a half of the double ointment and three grammes of lard; and from six months until one or two years, three grammes to four grammes may be employed. Thus the doses of mercury are not increased in proportion to the age of the children, for the further this is advanced, the more does the diathesis become diminished and exhausted. The frictions are made during from one to five minutes only once daily. This mode of treatment is the most prompt and heroic, and is of the greatest service. (Professor Parrot entirely disapproves of the treatment by mercurial baths and by hypodermic injection of the sublimate.) The best medicinal agent for the internal use of mercury is Van Swieten's *liquor*, consisting of one part of the deutocliloride of mercury, 100 parts of alcohol, and 900 parts of water. The dose for a sickly new-born infant with intestinal disturbance is half a teaspoonful, and for a robust infant a teaspoonful—making from two to five grammes of the *liquor*, containing from two to five milligrammes of the sublimate. But such a dose must not be administered at one time. A spoonful, or five grammes of the *liquor*, may be added to twenty-five grammes of some kind of syrup as a vehicle, and a teaspoonful of this mixture may be given six times daily. When the infant is at the breast, one of these may be given before each suckling (and in the same way just before each time of taking the bottle, when brought up by it), so that the remedy is always taken *before* the repast, the milk of which renders it more inoffensive. To infants of six months a teaspoonful and a half may be given, and to those of three years two teaspoonfuls. Larger doses are both useless and mischievous.

The second category comprises the delayed or lenticular syphilides, appearing at the age of six months, or of a year or two—the last traces of a diathesis that is already exhausted. The disease is no longer dangerous, for if no obstinate intestinal disturbance has supervened, we may be almost certain that there is no visceral syphilis. The diathesis has not been able to attain the deep-seated organs, and it has become extinguished. When consulted at this period, we might abstain from all treatment; and we have seen spontaneous cases produced in this hospital in young robust infants. Still, as a general rule, treatment should be had recourse to even at this period; but then mercury should never be administered. What we have to do in these infants, who are really cured of the syphilis, is to modify the constitution of their economy, in which there will always be a tendency to engender at a later period, not syphilism, but, in my opinion, rickets. To this end we should give them iodine. The iodide of potassium may be given for from six to eighteen months, commencing with fifteen to twenty-five centigrammes, and going later to a gramme per diem, given in divided doses. To this, however, I prefer a mixture consisting of one gramme of the tincture of iodine to 100 grammes of syrup of gentian or bitter orange-peel, of which a teaspoonful may be given daily in divided doses. *Local treatment* also has its utility. The first rule is the observation of the most rigorous cleanliness, baths with bran or starch-water being employed daily, and absorbent powders used afterwards, such as one part of the oxide of zinc to thirty of starch-powder. When there are ulcerations the glycerole of zinc (pure neutral glycerine thirty parts and oxide of zinc two parts) forms an excellent application. If the ulcerations are deep and have a tendency to phagedænis, they should be powdered with iodoform.

3. How should syphilitic new-born infants be fed? Alimentation plays an important part in their cure, and for a full consideration of all the delicate questions relating to this subject I may refer to Dr. Fournier's able lectures delivered in 1877, confining myself to its purely practical and clinical aspects. An infant the subject of hereditary syphilis should be fed as much as possible, and the sole nutriment that is suitable and indispensable for it is breast-milk. The child should always be kept at the breast as long as there is no risk of contaminating the nurse; but when there is danger to the nurse it should be withdrawn. If the mother is supposed to be exempt from syphilis, although her infant is syphilitic she should suckle her child; and if

there are risks to be run, the mother, before all others, ought to run them. If it is impossible for the mother to suckle the infant, recourse must be had to a nurse. When the child is born without any trace of syphilis, we may consign it to a nurse, recommending her to observe certain precautions, such as washing the mouth of the infant by means of a pad moistened with alcoholised water prior to suckling, and washing the nipple with the same after suckling; and carefully examining every day the condition of the mucous membrane and the anus of the infant. I believe that we must absolutely provide a nurse for such an infant, for without her its life is seriously threatened; and we have no right to expose it thus to almost certain death under the pretext that it may become syphilitic, for these infants frequently do not become so. On this point I differ in opinion from many eminent and competent practitioners, at the head of whom I place Dr. Fournier. But it seems to me that this is a question of life and death for the new-born infant; and, moreover, I am in agreement with all those who, on the appearance of the slightest trace of infection, the slightest spot, prohibit the continuance of suckling, even when there seems no danger of conveying the contagion by the breast of the nurse. In such cases ought we inform the nurse that the infant given her to suckle is syphilitic? This is a very delicate question in medical deontology; for the tribunals have alike condemned practitioners for having violated medical secrecy by so informing the nurse, and for having exposed the nurse to contamination through not informing her. Between these alternatives what course should we pursue? We should inform the parents of the danger which the nurse is incurring, and of their own responsibility, and invite them to dismiss the nurse immediately on some pretext—renouncing all attempts to bring up the child by the breast. If they resist his advice the *ultima ratio* of the practitioner is to retire from the case and see the child no more. This precept leads us far away from the time of Mauriceau, when they had no fear of infecting the nurse. In our days, the nurse must be first considered, her health being more precious even than the life of the infant. We have no longer the right to knowingly give syphilis to a nurse by confiding a syphilitic infant to her care. On taking the nurse away from the infant we must still give it milk, bringing it up by the bottle if no better means offers itself. An excellent mode would certainly be to suckle it by means of a syphilitic nurse; and at the end of the last century considerable sums were paid at the Hospice de Vaugirard in order to secure a constant supply of syphilitic nurses. The milk of such women, in fact, is frequently as good as that of a healthy nurse, and it is to be regretted that this institution no longer exists. In our own hospice we have recently had two syphilitic nurses who have rendered us real services. In the absence of nurses, asses' milk forms the best substitute, following it up by that of the cow. (Prof. Parrot has not found goats' milk, so strongly recommended by Fournier and others, very satisfactory.)

4. A final practical question is whether it is possible, when the syphilitic infant is suckled by a nurse or by a goat, to administer antisiphilitic remedies through the milk instead of giving them directly to the infant. In spite of the fact having been denied by distinguished chemists, it appears to be generally admitted that mercury given to the nurse passes into the milk; but this is certainly a very uncertain mode of treating a child, since the quantities absorbed depend upon different conditions acting upon the system of nutrition. The best procedure is to give the mercury direct to the child before its repasts, not mixing it with the milk.

MR. SCHRAMM writes to us thus:—"Gentlemen,—I am much obliged for making my truss known, but I am sorry you omitted the main point in it, viz., that it can be used for either right or left side."

A DOCTOR MADE GOVERNOR OF THE STATE OF KENTUCKY.—The *Louisville Med. News* (September 6) announces that Dr. Blackburn has just been elected Governor of the State of Kentucky for a period of four years by a majority of 43,917 votes. He has devoted a long life to philanthropic exertions, especially with regard to yellow fever, and is a strong advocate for the strictest quarantine. During the American Civil War his services in the cause of humanity were recognised in the most flattering manner by the Canadian authorities and the British Admiralty Court.

GENERAL CORRESPONDENCE.

THE "UNIVERSAL" TRUSS.

LETTER FROM MESSRS. MILLIKIN AND DOWN.

[To the Editor of the Medical Times and Gazette.]

SIR,—We notice in your last issue a mention of a so-called new truss. Now we beg to remind you that this is an exact copy of the truss brought out and registered by us some five years since (and of which we enclose a print); and your journal in common with the other principal medical papers commented very favourably upon it at the time; and besides, it was shown at several medical meetings and much approved of. There is nothing new under the sun. Yet when we at the cost of a great deal of trouble and expense perfect an improvement in an old truss, we cannot allow anyone else to take the exact article without any further improvement and hold it up to the profession as a piece of his own work. We are, &c.,

London, October 8. MILLIKIN AND DOWN.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentleman passed his examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, September 25:—

Groom, Henry Thomas, 345, Camden-road, N.W.

The following gentlemen passed on October 2:—

Clarke, William Jenner, St. Augustin's-road, Camden Town
Graham, Albert William, Cambridge-street, Warwick-square.
Jackson, Thomas, Shackthwaite, Penrith.
Pollard, George Edward, Brompton-square, S.W.
Steele, Warwick Charles, Wollaston House, Dorchester.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Atkinson, Thomas Reuel, Guy's Hospital.
Mahomed, Arthur George S., Guy's Hospital.
Roe, Robert Bradley, St. George's Hospital.
Kemm, Frederick St. John, London Hospital.
Russell, John Hutchinson, London Hospital.
Thomson, Thomas, Edinburgh Hospital.

Addition.—At the Preliminary Examination in Arts held on Sept. 19 and 20, P. B. Bentlif passed in the Second Class.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

EDMUNDS, WALKER, M.D. and **M.A. Cantab.**, F.R.C.S. Eng.—Assistant-Physician to the West-End Hospital, Welbeck-street.

FAWCETT, EDWARD, M.B. and **M.Ch. Dub.**—Medical Officer and Public Vaccinator for the Teignmouth District of Newton Abbot Union.

SIMON, ROBERT M., B.A., M.B. Cantab., M.R.C.P. Lond.—Assistant-Physician to the General Hospital, Birmingham, in place of George A. Gibson, M.B., D.Sc., resigned.

BIRTHS.

BUTCHER.—On October 6, at 70, London-street, Reading, the wife of William Deane Butcher, Esq., M.R.C.S., of a daughter.

ROOME.—On September 28, at North Esk, County Cork, the wife of Henry Roome, Esq., M.D., of a son.

STARTIN.—On September 30, at 17, Sackville-street, Piccadilly, the wife of James Startin, M.R.C.S., of a son.

MARRIAGES.

BRAUND-SMYTH.—On October 2, at Clapham, James Montague Braund, M.R.C.S., of Stratton, Cornwall, to Anne Isabella, eldest daughter of the late Benjamin Smyth, of Albert-square, Clapham-road.

FLOYD-DIBBIN.—On September 22, at Kingsclere, Hants, John Floyd, M.R.C.S., to Priscilla Phillips, fourth daughter of the late F. W. Dibbin, Esq., C.E.

GREENHILL-SOLBE.—On October 7, at Plaistow, Bromley, Kent, Joseph Ridge Greenhill, F.R.C.S. Eng., Surgeon-Major A.M.D., to Louisa, second daughter of the late Rev. C. Solbe.

GUNNING-GAGE.—On September 30, at Chelsea, John Edmund Gunning, M.R.C.S., of Silverdale, Staffordshire, to Augustus Maria, second daughter of W. J. Gage, M.R.C.S.

HARRISON-ROUND.—On October 4, at Hanover-square, Thomas Harrison, A.B., M.B., M.Ch., T.C.D., to Elizabeth Maria, eldest daughter of Edward Round, of South Belgravia.

HAY-HAY-BARCLAY.—On October 1, at St. Andrew's, George W. R. Hay, M.D., Surgeon Bombay Army, to Elmyra Agnes, eldest daughter of the late Arthur Hay-Barclay, Esq., of Paris, Perthshire.

JOHNSON-BRADY.—On September 24, at Waterford, Christopher J. B. Johnson, L.R.C.P., of Kirkby Overblow, Yorkshire, to Harriett, daughter of the late Rev. Francis Brady, Rector of Clonmel, County Tipperary.

MACKENZIE-HEELEY.—On October 2, at Dover, Surgeon-Major Coull Mackenzie, M.D., F.R.C.S., Bengal Army, to Josephine Mary, widow of Wilfred Lucas Heeley, Bengal Civil Service.

PEACOCK-WARLTERS.—On October 2, at Guildford, Henry George Peacock, L.R.C.P., M.R.C.S., L.S.A., of Forston House, Dorchester, to Mary Louisa, only daughter of the late John Cundel Warlters, of Farnham Royal, Bucks.

ROPE-BURD.—On September 25, at Shrewsbury, Henry John Rope, F.R.C.S., of the Gateway House, Shrewsbury, to Agnes Maud, daughter of Edward Burd, M.D., of Newport House, Shrewsbury.

SCOTT-BRITTEN.—On October 7, at Shenfield, Essex, F. W. Crick William Edward Scott, L.R.C.P., of Lancaster House, Lincoln, to Davian Frances, youngest daughter of David Britten, of Shenfield.

SPROT-THORP.—On September 11, at Simla, A. Sprot, Esq., of the Carabiniers, to Edith Florence, daughter of E. C. Thorp, Esq., M.D., Deputy Surgeon-General.

TURNER-DRAKE.—On September 30, at St. Sidwell, Exeter, the Rev. Charles Charretie Turner, Rector of St. Mary Magor, to Isabel, second daughter of Augustus Drake, M.B., F.R.C.P., of Exeter.

DEATHS.

EATON, DEODATUS WILLIAM, M.A., M.R.C.S.E., at Koroit, Australia, on July 14, aged 60.

FLEMING, JOHN GIBSON, M.D., at 155, Bath-street, Glasgow, on October 2, aged 70.

FRASER, MARGARET BRUCE, third daughter of Deputy Surgeon-General T. Fraser, M.D., at the Royal Military College, on October 5, aged 14 years and 6 months.

LANGLEY, MAURICE, eldest son of Robert Masters Theobald, M.A., M.R.C.S., at 25, Lee-terrace, Blackheath, on October 3, aged 17.

MOON, HENRY, M.D., at St. Leonards-on-Sea, on October 2, aged 68.

WEAVER, ELIZA, wife of Lorraine Weaver, M.R.C.S., of 185, Clapham-road, London, on October 6, aged 54.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATION.

Bromyard Union.—The Second District is vacant by the death of Dr. G. F. Etheridge; area 22,159; population 3500; salary £100 per annum.

Dore Union.—Mr. G. Dale has resigned the Kentchurch District; area 23,368; population 3270; salary £50 per annum. Also the Workhouse; salary £30 per annum.

Halstead Union.—Mr. Henry Borham has resigned the Second Division of the First District; salary £60 per annum.

APPOINTMENTS.

Bolton Union.—Norman McLeish, M.B. and C.M. Edin., to the Little Bolton Second District.

East Ward Union.—Thomas Sayer, M.B. and M.C. Edin., to the Brough District.

Holborn Union.—Isaac Crawford McLearn, M.D. and M.C. Queen's Univ. Ire., as Assistant Medical Officer and Dispenser at the Infirmary.

Malling Union.—Frederick Aubrey Smith, L.R.C.P., L.R.C.S. and L.M. Edin., to the Second District.

Middlesbrough Union.—Samuel McCutcheon, M.D. and M.C. Queen's Univ. Ire., to the First District.

Wandsworth and Clapham Union.—Field Flowers Sutton, M.D., M.R.C.S. Eng., L.S.A., to the Balham, Upper Tooting, and Streatham District.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.—At a meeting held in the Faculty Hall, on Friday, the 3rd inst., the following office-bearers were appointed for the session 1879-80:—**President:** Dr. Andrew Fergus. **Vice-Presidents:** Dr. McCall Anderson; Dr. D. Taylor, Paisley. **Council:** Dr. Wm. Macgill; Dr. Hugh Miller; Dr. Alex. Robertson; Dr. A. L. Kelly; Dr. Bruce Goff, Bothwell; Dr. J. B. Russell; Dr. Geo. Willis, Baillieston; Dr. Geo. Mather; **Secretaries:** Dr. Joseph Coats; Dr. W. L. Reid. **Treasurer:** Dr. Hugh Thomson.

MEDICINAL AGENTS IN THE SALIVA.—In a paper read at the Académie des Sciences, M. Gabriel Pouchet detailed the results of some experiments which he had made for the detection of substances in the saliva. In three instances he was enabled to detect lead in cases of saturnine paralysis and tremor. In each case from 100 to 150 grammes of saliva were produced by the injection of pilocarpin, but the quantity of lead found was too minute to allow of its dosage. In two cases of diabetes treated by arsenious acid and arseniate of soda not a trace of arsenic could be found; and in these cases, as already remarked by Claude Bernard, no trace of sugar existed in the saliva. M. Pouchet was enabled to verify the fact, already noted by Prof. Vulpian, of the passage of albumen into the saliva in Bright's disease. Two injections of pilocarpin were practised in a subject of parenchymatous nephritis, the first of which caused the discharge of 328 grammes of saliva, the albumen detected being by weight 2.27 grammes per 1000 grammes of saliva. The second injection, practised three weeks after the first, only produced 145 grammes of saliva, containing 1.98 gramme of albumen.—*Revue Méd.*, September 27.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN SEPTEMBER.—The following are the returns (by Dr. Meymott Tidy) of the Society of Medical Officers of Health :—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, etc.	Nitrogen : As Nitrates, etc.	Ammonia.		Hardness. (Clarke's Scale).	
				Saline.	Organic.	Before Boiling.	After Boiling.
<i>Thames Water Companies.</i>	Grs.	Grs.	Grs.	Grs.	Grs.	Degs.	Degs.
Grand Junction ...	20'00	0'148	0'126	0'000	0'009	14'1	3'6
West Middlesex...	20'40	0'159	0'106	0'000	0'010	14'1	3'3
Southwark and Vauxhall ...	20'20	0'155	0'105	0'000	0'009	13'2	3'7
Chelsea ...	20'00	0'089	0'108	0'000	0'009	15'2	4'6
Lambeth ...	20'70	0'148	0'120	0'000	0'011	14'7	3'3
<i>Other Companies.</i>							
Kent ...	26'70	0'014	0'390	0'000	0'001	18'8	6'5
New River ...	20'70	0'094	0'132	0'000	0'004	13'7	3'3
East London ...	20'80	0'062	0'126	0'000	0'009	13'2	3'7

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Inquirer.—There are six medical men in the new Austrian Reichsrath, opened on the 8th inst.

Nemo, Birmingham.—Not quite correct, as members of the Council receive one guinea each for attending the meetings, and during the past collegiate year there have been eleven.

Sunday Milk.—The public analyst to the Salford Town Council, in his last quarterly report on the adulteration of food, shows that he had examined 120 samples of milk, twenty-eight of which were adulterated. One of the samples, obtained on a Sunday, contained as much as 35 per cent. of water.

Killed by Wild Beasts, India.—There were 19,695 persons killed by wild beasts and snakes in British India in the calendar year 1877. Of these 16,777 were killed by snakes. In the course of the year, 22,851 wild beasts and 127,295 snakes were destroyed, for which rewards were given amounting to £10,301.

Surgical Operators and their Legal Privileges.—The question, Are a man's legs which have been cut off still his legs or those of the operator who dispossessed him of them ? is likely to be raised in an American law court. The legs in question are exhibited, preserved in spirits, in a museum at Washington, with the name of the original owner attached. The latter has claimed them as his own. The claim is resisted by the surgeon who presented them to the museum and by the authorities of the museum.

Polluted Well-Water at Leicester.—The report of the Sanitary Committee submitted to the Leicester Town Council, at the quarterly meeting held last week, in referring to the water-supply, states that during the quarter fifty-four samples of water had been analysed by the public analyst, eleven of which had been condemned as unfit for human consumption, and orders given to close the wells. Since powers were conferred upon the Corporation to close wells where the water was found to be polluted, no less than 415 wells had been closed in the borough.

Bishop of Manchester on Extravagance in Wine.—In a sermon reported in the Guardian of October 1 the Bishop of Manchester is reported to have said that :—" When he was a young man it was the rarest thing imaginable to see on the table of the rich man a bottle of champagne. It was only brought out on some very festive occasion—a wedding-day, the celebration of a silver wedding, or on the occasion of the rare visit of some very valued and respected friend. But how now ? They could not go anywhere without seeing champagne at 10s. a bottle and the most costly wines on the table. All must agree that the habits of the people had got extravagant." For our own part we venture to say the Bishop's evidence as to the common use of " champagne " affords, as a rule, an augury of the happiest kind for the refinement and temperance of the population. As a French author observes : " La préférence pour le vin suppose une certaine éducation, quelque raffinement de goûts." People who now drink " champagne " at their innocent festivities would forty years ago have been drinking beer, or perhaps punch, or peradventure port ; or if savingly disposed might have partaken of Cape wine or of home-made gooseberry. At that time foreign wine was subject to a duty of nearly 1s. a bottle, now it comes in at 1s. a gallon. We rarely see quoted in the lists of wine merchants real champagne at any higher price than 7s. per bottle, and the Bishop must visit very rich people if he constantly meets with superfine champagne at 120s. a dozen. People of common sense are generally content with some of the cheap and wholesome sparkling wines of France or Hungary, which may be had at two or three shillings a bottle.

Irish Parsimony.—The Local Government Board has declined to sanction " as being unjust, ungenerous, and imprudent," a proposal of the Limerick Board of Guardians to make a general reduction in the salaries of the workhouse officials.

Better Late than Never.—The notorious Tranmere baby-farming case has already had one salutary effect. The Birkenhead Town Council has resolved that the Watch Committee be instructed to take steps for bringing into operation in the borough the provisions of the Infant Life Protection Act of 1872.

Bombay Items.—The rate of mortality in Bombay for the week ending the 12th ult. was 36'95 per thousand of the population per annum. The Bombay Town Council have recommended the Municipal Corporation to spend ten lakhs of rupees on the improvement of the water-supply to the town by constructing a service reservoir with filter-bed and service-pipes.

Street Accidents.—The return of the Society for Preventing Street Accidents for last week shows that seven persons were killed and thirty-five others run over by vehicles in the metropolitan area. The Society has resolved to forward a memorial to the Lord Mayor, asking him to preside at a meeting at the Mansion House to promote the Society's objects.

Urban and Rural Sanitary Works.—New public waterworks are in course of erection at Lochgelly, at an estimated cost of £4227.—The Goole Local Board has ordered plans to be prepared for a complete system of sewerage for New Goole and District.—A new workhouse is to be erected at Hastings, to provide accommodation, exclusive of infirmary and central wards, for 316 persons. The cost is estimated at £6500.—The Rural Sanitary Authority of Hambledon, West Surrey, are about to carry out a scheme of sewerage of the village of Bromley.—The Huddersfield Board of Guardians have decided, on the casting vote of the chairman, to erect at Deanhouse hospital accommodation for 120 patients, at a cost of £3600.—A new reservoir has been commenced at Eccup, near Leeds, which will practically complete the Leeds water-works scheme. The reservoir will embrace an area of 195 acres, and will contain 1,400,000,000 gallons of water. The estimated cost is £80,000.

The Public Health Act: Important Case.—At the Rysdale Petty Sessions, last week, a point of considerable importance was raised in a case under the Public Health Act. A grocer and provision dealer, of Kirbymoorside, was summoned by the inspector of nuisances for the Rural Sanitary Authority of the Union for having on September 6 had in his possession, on his premises, thirty-eight pieces of bacon which were unfit for the food of man, and which had been ordered to be destroyed by a magistrate. On the opening of the case the objection was urged on the defendant's behalf that he had not been allowed an opportunity of answering the case before the magistrate when the meat was condemned, and that that having taken place *ex parte*, the case fell to the ground. Two cases were cited in support of this objection, and the Bench, after consultation, adjourned the case to enable their clerk to look into the law on the subject. The defendant's solicitor intimated his willingness to take a case to a superior court.

THE LEAST PAINFUL WAY OF KILLING ANIMALS FOR FOOD.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—With reference to the remarks of Dr. Prater, allow me to mention that some years ago a suggestion was made in one of the magazines—Blackwood, I think, or Fraser—that the animals should be killed by puncturing the thorax on both sides at the same time. It was supposed that death would follow instantly upon the admission of air and the collapse of the lungs.

Can any of your readers tell whether the experiment has been made ? A butcher, to whom I once spoke on the subject, gave his opinion that the meat would be darker in colour than in animals which had been killed in the usual way by loss of blood, and that if exposed in the market people would not buy it.

I am, &c.,

E. L. HUSSEY.

Oxford, October 6.

A PROBLEM FOR TOBACCO SMOKERS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you pardon me if I ask from your numerous readers an answer to a problem, which seems trifling, but yet I think is worth solution. It is this—Why do I not know when I am smoking in the dark whether my pipe is alight or not ? I light my pipe by the candle, I enjoy my smoke ; and while I am smoking, someone takes away my candle, and I am miserable, for I do not know whether my pipe has gone out or not, and my enjoyment is at an end until the candle is relighted. Is it that the pleasure in smoking is derived in many cases from the fanciful dreams due to this mild narcotic, tobacco ? and is it habit which has led me to form the visions and the dreams while watching the curling wreaths of smoke ? Is it necessary to see the fiery clouds before one can shape the thoughts which arise from the contemplation of the destruction of matter ? Do people have their sad or pleasant reveries when they sit contemplating a closed stove as well as when they gaze on the embers of a dying fire ? I think I could find an answer if I knew whether blind men smoke in the same proportion and enjoy the process as much as their happier brethren who see ? Is there a difference in the result obtained by smoking with the eyes open or shut ? Is chewing tobacco an intellectual pleasure or a mere sop to animal cravings ? A blind smoker seems to me to be in the position of a man who chews ; he gets the taste of the tobacco and the stimulation of the salivary glands. Does he get more ? Does a blind smoker only become more animal, or does he, like the man who smokes with his eyes open, raise himself for a time above the evils and the failings of humanity ? To conclude, I ask once more, Why do I not know whether I am smoking or not when the light is taken away ?

I am, &c.,

A DREAMER WITH OPEN EYES.

A Perilous Practice.—The too common practice of bidding farewell to friends departing on a railway journey by shaking hands with them when the train is in motion is not without great danger to life. A fatality from this practice has just occurred at the Newcastle Central Railway Station. The deceased was standing at the end of the platform, and as the train past she extended her hand to a friend in one of the carriages. She was immediately dragged beneath the wheels, several carriages passed over her, and when taken up she was terribly mutilated and quite dead.

COMMUNICATIONS have been received from—

Dr. ED. I. SPARKS, Oxford; Sir ED. LECHNER, London; Mr. CHAS. J. DAVIS, Hereford Infirmary; Dr. BRAKENRIDGE, Edinburgh; Mr. JONATHAN HUTCHINSON, London; Dr. HENRY THOMPSON, London; Mr. W. H. MACNAUGHTEN, Southsea; Dr. WOLFE, Glasgow; THE SECRETARY OF THE LONDON SOCIETY FOR THE EXTENSION OF UNIVERSITY TEACHING; THE REGISTRAR OF APOTHECARIES' HALL, London; Mr. ED. ATKINSON, Leeds; A GENERAL PRACTITIONER; Mr. A. P. HOBBS, London; Mr. ALEX. KELLY, London; THE HON. SECRETARY OF THE CLINICAL SOCIETY; THE SECRETARY OF THE GLASGOW MEDICO-CHIRURGICAL SOCIETY; THE HON. SECRETARY OF THE HUNTERIAN SOCIETY; Dr. G. E. HERMAN, London; THE HON. SECRETARY OF THE WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM; Surgeon-Major F. N. HOGG, Netley; Mr. WM. FRASER, Aberdeen; Dr. HAMMOND, U.S.A.; Dr. J. WALLACE, Liverpool; Mr. E. L. HUSSEY, Oxford; Mr. T. M. STONE, London; THE REGISTRAR-GENERAL, Edinburgh; Mr. K. R. SCHRAMM, London; Dr. CARTER, Liverpool; Dr. RUSSELL, Birmingham; Dr. J. W. HONE, Dublin; Surgeon-Major H. W. BELLEW, Sanitary Commissioner, Punjab; C. MEYMOTT TIDY, M.B., London; Mr. GEORGE FIELD, London; Messrs. MILLIKIN and DOWN, London; Mr. J. CHATTO, London.

BOOKS AND PAMPHLETS RECEIVED—

Notes of Lilies, by Dr. Wallace, second edition—Dr. Paul Guttman's Handbook of Physical Diagnosis—Annual Report of the West End Hospital—Zymotic Diseases, Sir Thomas Watson, Bart., M.D.—Mind in the Lower Animals (two vols.), W. Lauder Lindsay, M.D.—Bible Hygiene, or Health Hints by a Physician.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Louisville Medical News—Nature—Homœopathic Review—El Siglo Médico—L'Union Médicale d'Orient—Journal of Education—Rêvue Médicale—Indian Medical Gazette—Lincolnshire Chronicle—The Birmingham Medical Review—Bulletin National Board of Health—The Kensington Annual Report for 1878—The Chesham Journal—North Carolina Medical Journal—The Daily Courier—National Anti-Compulsory Vaccination Reporter—The Glasgow Medical Journal—Archives Générales de Médecine—The Analyst—Journal of Psychological Medicine and Mental Pathology—The Quarterly Journal of Inebriety.

APPOINTMENTS FOR THE WEEK.

October 11. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

13. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

14. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

15. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

HUNTERIAN SOCIETY (London Institution), 7½ p.m.: Council Meeting. 8 p.m.: Short Address by the President, Dr. J. Braxton Hicks. Mr. J. Hutchinson, "On the Relationship between Locomotor Ataxy and Syphilis."

16. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

HARVEIAN SOCIETY, 8½ p.m. Mr. Alderson, "A Case of Immense Enlargement of the Heart." Dr. Fothergill, "The Immediate and Permanent Treatment of Disease."

17. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

SOCIETY OF MEDICAL OFFICERS OF HEALTH, 8 p.m. Inaugural Address of the Session, by the President, Dr. J. S. Bristowe.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 4, 1879.

BIRTHS.

Births of Boys, 1243; Girls, 1337; Total, 2580.
Average of 10 corresponding years 1869-78, 2291.2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	708	610	1318
Average of the ten years 1869-78 ...	678.3	631.0	1309.3
Average corrected to increased population ...	...	...	1401
Deaths of people aged 80 and upwards ...	...	...	42

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West ...	561359	1	1	7	2	5	...	2	...	9
North ...	751729	3	9	15	1	6	...	9	...	14
Central ...	334369	...	3	4	1	2	...	4	...	4
East ...	639111	...	7	15	1	11	1	9	...	19
South ...	967692	...	1	20	3	10	1	10	2	15
Total ...	3254260	4	21	61	8	34	2	34	2	61

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29.893 in.
Mean temperature ...	...	...	...	...	...	54.5°
Highest point of thermometer ...	...	...	...	...	...	67.8°
Lowest point of thermometer ...	...	...	...	...	...	41.0°
Mean dew-point temperature ...	...	...	...	...	...	49.9°
General direction of wind ...	...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	...	0.57 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Oct. 4, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Oct. 4.	Deaths Registered during the week ending Oct. 4.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		In Inches.	In centimetres.
London ...	3620868	48.0	2580	1318	67.8	41.0	54.5	12.50	0.57	1.45
Brighton ...	105608	44.9	52	32	65.0	41.8	54.7	12.61	0.85	2.16
Portsmouth ...	131821	29.4	81	38	62.0	50.0	55.5	13.06	0.92	2.34
Norwich ...	85222	11.4	68	36	...	...	...	...	...	...
Plymouth ...	74293	53.3	45	32	62.2	40.0	53.0	11.67	1.00	2.54
Bristol ...	209947	47.2	142	78	...	...	...	...	...	...
Wolverhampton ...	75100	22.1	61	28	60.3	37.0	48.2	9.00	0.98	2.49
Birmingham ...	388884	46.3	291	142	...	...	...	...	...	...
Leicester ...	125622	39.3	80	37	63.8	34.8	50.5	10.28	1.18	3.00
Nottingham ...	169398	17.0	107	51	66.5	32.9	50.0	10.00	1.09	2.77
Liverpool ...	538338	103.3	390	273	59.0	40.6	50.0	10.00	0.70	1.78
Manchester ...	361819	84.3	228	177	...	...	...	...	...	...
Salford ...	177849	34.4	136	89	...	...	...	...	...	...
Oldham ...	111318	23.9	71	37	...	...	...	...	...	...
Bradford ...	191046	26.5	105	88	59.0	36.3	48.2	9.00	0.58	1.47
Leeds ...	311860	14.5	196	94	59.0	35.0	47.6	8.67	0.34	0.86
Sheffield ...	297138	15.1	190	108	63.0	33.0	49.3	9.61	0.85	2.16
Hull ...	146347	40.3	106	62	62.0	32.0	48.8	9.34	0.74	1.88
Sunderland ...	114575	41.4	76	40	67.0	41.0	50.7	10.39	0.16	0.41
Newcastle-on-Tyne ...	146948	27.4	88	58	...	...	...	...	...	...
Edinburgh ...	226075	53.9	137	76	58.5	37.0	49.4	9.66	0.67	1.70
Glasgow ...	578158	95.8	337	174	58.3	42.3	51.7	10.95	0.50	1.27
Dublin ...	314666	31.3	148	155	62.1	34.3	50.1	10.06	0.25	0.63
Total of 23 Towns in United Kingdom	8502896	38.6	5713	3223	67.8	32.0	50.8	10.45	0.71	1.80

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.89 in. The lowest reading was 29.53 in. on Wednesday morning, and the highest 30.10 in. at the end of the week.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON RETENTION OF URINE.

By J. MATTHEWS DUNCAN, M.D., LL.D.,

Physician-Accoucheur and Lecturer on Midwifery at St. Bartholomew's Hospital.

WE distinguish retention of urine from suppression—*Ischuria renalis*. To speak generally, in the former the urine is secreted but not discharged; in the latter the urine is not secreted and there is none to discharge. But that is not a complete definition, for the two diseases have close alliance; not in their nature or in their treatment so much as in their symptoms and morbid results. If retention of urine is absolute—as, for instance, by obstruction of both ureters—then there is besides retention also suppression of urine, for urine is not secreted. Further, retention of urine often produces dilatation of the ureters and of the kidneys, a condition in which the sufferer is liable to sudden suppression of urine, with all its dangerous, alarming, or fatal results.

To one well-known set of cases of retention of urine I will now only refer. In them, one kidney has had its function somehow or other destroyed, and then retention of urine is produced in the other kidney by the progress of a calculus into the ureter. As a consequence the patient is suddenly plunged into the greatest danger. Many cases of this kind are recorded.

Retention of urine is a grave disease well deserving its place in the nosology, although it is not primarily the disease in any case; the cause of the retention being, theoretically at least, a better source of nomenclature than the retention, which is a result of a great variety of distinct causes.

Before proceeding further I may tell you that retention of urine in the foetus is a very different thing from retention after birth. The foetus, indeed, may be well nourished, born alive, and—as in a case under my own care—live for two days, with absence of urinary organs—without kidneys or bladder! In the foetus it occasionally happens that atresia of the urethra produces retention, which has, of course, lasted during the whole foetal life, producing enormous distension of the bladder, which is sometimes mistaken for ascites. In such a case there is not a fatal result to the foetus, which would certainly occur were the same condition produced after birth. In some of these cases of distended bladder there has been found absence of communication between the bladder and the kidneys. But I must stop these curious details, which have only a remote bearing on the matter before us, and dismiss the subject by saying that the difference between the foetus and the condition after birth lies in the circumstance that urea, or the excrementitious products of the kidneys, are probably not produced until the time of birth or immediately after it.

Retention of urine may be in the bladder alone, or in the ureter or ureters alone, or in both bladder and ureters. Retention in the bladder leads to retention in the ureters. Retention in the ureters has, on the other hand, nothing to do with retention in the bladder. Retention in the bladder or in the ureters may be complete or incomplete. In the case of ordinary retention in the bladder the incompleteness is very well illustrated in cases where the woman declares with truth that she is passing more urine in quantity and more frequently than usual. Although the patient cannot say this of the discharge through the ureters when one or both of them is obstructed, yet we have reason to believe that in this case a similar incompleteness may occur. There is nothing more common in practice in this department of medicine, and therefore nothing more important for you to remember, than that the circumstances of frequency and copiousness of urination almost always, as in the first case I shall read to you, lead to the real condition of matters being for a time mistaken or overlooked. It seems difficult to opportunely recall to mind that retention of urine frequently occurs along with frequent and copious discharges of it.

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The urine discharged in cases of retention is of low specific gravity, and if the retention is incomplete it is copious. Attempts have been made to explain these changes in the urine by increased pressure on the secreting surfaces. *Uræmic eclampsia* used to be, and in some quarters even now is, supposed to be accounted for by pressure on the kidneys and renal vessels. That is, I may remark in passing, an untenable view, but there is a great deal more reason in the mechanical explanation founded upon pressure on the secreting surfaces in the circumstances we are now considering. There are difficulties, however, in the matter suggested by the consideration of the similar condition of the urine in *hysteria* where there is no obstruction, and in *ureteral fistula*, in which latter, however, the quantity is probably not increased. Of course, copious secretion only occurs when the pressure on the secreting surface is not so great as to stop it entirely. I know little or nothing of pressure being great enough to stop secretion in cases of retention in the bladder. Stoppage of the secretion is known to me only as a result of obstruction of the ureters, not of the urethra.

When there is incomplete *ureteral* retention, danger no doubt occurs; and it is illustrated in the fatal case produced by a uterine fibroid, which I shall presently read to you; but I do not know any facts which help us to decide when danger begins in a case of incomplete retention. We have, however, facts demonstrating the time of commencement of danger after complete *ureteral* retention or obstruction. For instance, recently, several cases have been recorded of the ligature of both ureters in the operation of excising the uterus; and these cases, although surviving for several days, have died without showing any special *uræmic* symptoms. Cases of other kinds show that the *ischuria* of complete retention, as by *ureteral* obstruction, is like cases of simple *ischuria* or primary suppression, in having *uræmic* symptoms delayed for a varying period, often of about a week.

What are the symptoms when they come? I shall read presently cases which will illustrate these, and it is very valuable to know them. The phenomena when they appear are very like the phenomena of *uræmia* in pregnancy, parturition, or the puerperal state, and of *uræmic eclampsia*: they are only like, but not identical. In *uræmic eclampsia* the outbreak of the alarming phenomena is generally much more sudden and violent. In *ischuria* from retention the disease evidences itself by twitching of the limbs, a certain degree of stupor, a changed and unaccountable manner in the woman, and by contraction of the pupils. Often there is nothing more than this, and the woman gradually becomes weaker and dies; but sometimes, as in one of the cases I shall read to you, there are convulsions or *eclampsia* and complete coma before death.

I proceed now to describe to you the causes, and I shall consider all kinds of retention of urine because I am not interested in describing those cases of retention alone which at last result in complete obstruction to the discharge of urine, and in death.

Retention of urine in the bladder is generally caused by obstruction of the urethra. In a former lecture I described to you a case of stricture of the urethra—congenital stricture—which caused retention of urine and dilatation of the bladder and of the urethra, for the stricture was at the external orifice. Lately we have had in “*Martha*” a case of retention of urine from cancer. Cancer in any part of the genital organs is seldom a cause of retention of the urine. In the case which I refer to, and which some of you will remember, the cancer affected the orifice of the vagina and produced obstruction by pressure upon the urethra. An ovarian tumour very rarely produces retention of urine in the bladder. The retroversion of the gravid uterus is a cause of retention of urine, and you have seen examples of it in the wards. Upon this cause I shall say a few words. You will not understand the retroversion of the gravid uterus if you do not keep in mind that the retention of urine is both cause and effect—that there is in this disease what is sometimes called a vicious circle; and I shall have, in the course of this lecture, to point out to you several instances of this vicious circle. A woman has her uterus retroverted, and generally it gradually takes its right position as it grows. But if, for example, the woman has a contracted brim, the retroverted uterus will almost certainly not take its right position—it will not go up into the abdomen spontaneously, and it will come to produce retention of urine by pressure on the urethra. Again, if a woman with retroversion has retention

of urine produced by any cause, then the case will become urgent, but only then. If retention of urine had not been caused by the retroversion you would probably never have heard of the retroversion; but the retention of urine has been caused, then the replete bladder pushes the uterus downwards more than ever, and keeps it down. The replete bladder, therefore, increases the retroversion, and makes it, for the time at least, incurable, and it was the retroversion that made the retention of urine by pressure on the urethra. So that you see the one is the cause of the other, and the other is, inversely, the cause of the one—both combining to form a vicious circle.

The commonest cause of retention of urine in the bladder is the second stage of labour. In the first stage of labour the uterus pulls up out of the pelvis the bladder, the lower part of the uterus, and the upper part of the vagina. All these organs are, as it were, taken out of the way to make room for the descent of the head. During the first stage of labour a woman urinates freely; but during the second stage, as the head comes down, it presses the urethra against the pubes. The urethra cannot be pulled out of the way, and the pressure on the urethra generally stops the flow during the second stage. In most women the second stage of labour is brief, occupying from one to three hours, and the retention of urine for that time causes no trouble. But the retention of urine even for that time sometimes leads to retention after delivery. If the second stage of labour lasts still longer the retention of urine becomes a matter of importance; but there is not time now to describe that.

A rare cause of retention of urine is extra-uterine pregnancy. We have a case in "Martha" now which is believed to be an extra-uterine pregnancy, and in which many of the statements I have made regarding retention of urine in the bladder are remarkably illustrated, especially the deception by the circumstance that the woman was passing a large quantity of water and urinating more frequently than usual. I will read you the particulars of the case:—

"I. W., aged thirty-seven, married, has had two miscarriages and two children. Her last pregnancy was with a child at term fourteen years ago. Catamenia regular till four months ago. Then she began to have bearing-down pains, and pain in defæcation and micturition. On July 3 she was admitted into 'Martha' with perimetritis, and at this time she was very ill. There were tenderness and hardness around the uterus posteriorly. On July 31 she was dismissed much improved. But after her return home her pains returned, especially in the left iliac region, and she had much vomiting. On October 1 she was readmitted. She complains of pain in base of sacrum, and of labour-like pain in the region of the womb. Bowels constipated. Breasts enlarged, and contain milk. Lower half of abdomen is occupied by a prominent swelling, elastic, containing fluid, and rising to an inch above umbilicus, resembling a six-months-pregnant uterus. In both flanks there is resonance down to the spines of the ilia. The cervix uteri is to be felt behind the horizontal ramus of the right pubic bone, a soft tumour descending into the upper part of the pelvic cavity and filling it, and continuous with a tumour in left iliac region. Catheter drew off two pints and three-quarters of limpid urine; specific gravity 1008; no albumen. The cyst-like swelling of the abdomen disappeared. The catheterism produced (and this is a rare thing) during its later period the pains of violent strangury. Most women are delighted with the sensations of relief; but in this woman there was, instead, violent strangury. She had for a fortnight had pain and difficulty in urinating, requiring to compress the abdomen to aid herself. The urine has been in larger quantity and passed more frequently than usual with her. In subsequent reports it appears that catheterism continues to be required."

Obstruction of the urethra is not the only cause of retention of urine in the bladder. Nervous disorder is a common cause as is illustrated in cases of hysteria, cases of insanity, and of fever. A third set of causes is but little understood—the pressure relations of the abdomen, or too great retentive power in the abdomen; a condition in which, with or without effort, no pressure sufficient to evacuate the bladder can be brought to bear upon it. This is illustrated in cases of retention of urine after delivery and in some others.

Lastly, there is a kind of retention of urine which I have not alluded to, where the bladder is, so to speak, badly con-

structed, so that instead of having the natural condition with the internal orifice of the urethra the lowest part of the bladder, you have a pouching of the bladder, so that the internal orifice is not the lowest part and the bladder is not thoroughly emptied. For you must remember that it is not necessary for the emptying of the bladder that the organ should actively contract. In this condition of mal-construction, in which the internal orifice is not in its natural situation as the lowest part, so that the first secreted is also the first evacuated, urine is retained, and if it decomposes it is apt to cause inflammation of the bladder.

Now, I mention causes of retention in the ureter, and these have hitherto been very much neglected by practitioners. Pregnancy has always been known to occasionally cause obstruction of the ureters; but recently many observations show that this obstruction of the ureters has a good deal more to do with the nervous phenomena of pregnancy and even with uræmic eclampsia than we have hitherto supposed.

This obstruction is most likely to affect the right ureter; and the reasons for this are, almost certainly, the two following: That the womb lies to the right side in about 75 per cent. of women—right lateral obliquity. If a pregnant woman lies on her back, the womb lies generally to the right side, and naturally presses more on the right ureter than on the left. If she stands, the uterus has still this right obliquity, and the pressure is probably very much the same—at least in primiparæ. But besides this, if you remember the anatomical position of the passage of the right ureter over the brim of the pelvis you will understand why it should specially be liable to pressure, for there is, from the way in which the common iliac vessels pass down in front of the sacro-iliac synchondrosis, a great deal more prominence there than on the left side, and consequently the ureter is pushed forwards favourably for pressure on the right side, which it is not on the left.

Besides these there are numerous other causes. You have procidentia of the uterus sometimes producing apparently a "kink" upon the ureter—not compressing it, but producing a sharp kink in it which stops it; a kind of stoppage which is illustrated frequently in cases of ovariectomy, the bowel getting an adhesion which makes a sharp turn upon it, so acute that the alimentary mass cannot get along. Peritoneal bands have been found obstructing the ureter, and these may be produced in a late period of life; or they may, along with other causes of congenital deformity, have existed for a long time; and there is a great mystery about these cases as to why the symptoms did not come on until the patient had grown up, although the congenital deformity had certainly existed for a long period. Again you have, what I have described in a former lecture, inflammation in the cellular tissue round the ureters at the side of the womb, producing in some cases a condition that is called chronic *parametritis atrophicans*, and the atrophy leads to obstruction of the ureter. An ovarian tumour sometimes produces the same thing.

Before I come to read two cases of this kind—in one the obstruction was produced by cancer, and in the other it was produced by a fibroid—I will give you another example of the vicious circle. In cases of diabetes insipidus the ureters are often found dilated, as also the kidneys. This curious circumstance seems to be explained by some recent observations which almost prove that the wetting of the bed in children is the cause in some cases of dilatation of the ureter and of the kidney, and of danger and even death. This wetting of the bed or frequent urination in children is far from being a complaint to be considered as altogether of trifling importance. In these cases the retention in the ureter may occur, and it is explained by supposing that the constant contraction of the bladder in these abnormal cases leads to the frequent urination, and also closes the vesical orifices of the ureters, produces dilatation of the ureters, dilatation of the kidneys, and the danger of death. This theory will also apply to diabetes insipidus, and, if it is so, you have another example of the vicious circle. There is a large quantity of urine, which leads to frequent urination; frequent urination leads to obstruction of the ureters at their vesical orifices; and partial obstruction of the ureters leads to excessive secretion: the excessive secretion requires frequent emptying; the frequent emptying produces obstruction of the ureters; and the obstruction of the ureters leads to excessive secretion,—and so on.

I now come to two extremely interesting cases of obstruction of the ureter, the first of which was caused by cancer. In this case the symptoms of retention of urine were present before death, but they were masked by symptoms of acute peritonitis, which was the cause of death; and it is not an uncommon cause of death in cases of cancer of the womb.

"A. E., aged forty-one, admitted September 11, 1879. Married for twenty years; eight children, the last three years and a half ago; five miscarriages, the last seven years ago. Catamenia began at thirteen, and have been regular till about twelve months ago, when they became profuse and long-continued, leaving an interval of from seven to fourteen days. For a month had had pain in hypogastrium and thighs. Vomited her food generally. Bowels costive. Micturition had been painful. Had not passed water for three days, except half an ounce on the day of admission. Bladder empty. Urine not discharged per vaginam; but there was a moderate amount of bloody discharge always going on. Temperature, a.m. 97°, p.m. 98.4°. Upper third of vagina, cervix uteri, and neighbourhood were the seat of dense, irregular, nodose, fixed hardness, evidently cancerous. On the 13th she had for fifteen minutes what was described as a fit of collapse with abdominal pain; the pulse 132 during the attack. Temperature, a.m. 98.4°, p.m. 99.2°. On the 14th, bladder examined in consequence of only four ounces of urine having been passed since admission. It was found empty, of natural size, not tender. Abdomen distended, tender, dull on percussion up to half-way between umbilicus and pubes. Especial complaint of pain in region of right kidney and ureter. Pulse 114, hard; temperature 101.2°. Twitchings, which began three days before death in the feet, and gradually extended over the body and increased in severity, went on till 5 p.m., when she died. No marked contraction of pupils. During her stay in the hospital she had a manner indicating oppression approaching to stupor, which gradually increased. Post-mortem examination was reported as follows:—Body well nourished. No anasarca. Right pleural cavity contains some slightly turbid effusion with floating shreds of lymph, of which there is also some deposit on the lung. Right lung contains numerous small nodules of medullary cancer. Left pleura and lung normal. Heart and pericardium normal. All the viscera of the abdomen are coated with recent lymph, and the peritoneum is injected. Liver of normal size; contains several small nodules of soft cancer, and one as big as a walnut deep in the substance of the right lobe. Gall-bladder normal; spleen normal. Stomach and intestines normal internally. Mesenteric glands enlarged and soft. The upper part of the vagina and the cervix uteri are the seat of ulcerated medullary cancer. From the uterus there extends backwards and forwards a quantity of thickened dense tissue in which both ureters are embedded, compressed, but not impervious. Ureters above this much dilated, especially the left. Kidneys pale, with wide cortex; surface smooth; capsule readily detached; no amyloid reaction. Left kidney enlarged, weighs nine ounces and a half; two pyramids ulcerated, but not cancerous. Right kidney weighs five ounces. Supra-renal capsules and bladder normal. Left ovary natural. Right as large as a walnut, and contains pus."

The next case, and the last one I shall read to you to-day, is one where death was caused by the very rare retention of urine produced by obstruction of both ureters by a fibrous tumour of the uterus:—

"A. S., aged forty. Married eleven years; never pregnant. Had a large uterine fibroid projecting deeply into the pelvic brim and fitting it tightly. From this fibroid she had suffered in the usual way—pain, chiefly at monthly times, and occasional considerable hæmorrhagic losses. When she came into the hospital she had a new complaint of pain and tenderness in the belly, chiefly at the sides of and especially in the right flank, and the pain had shootings down the right thigh. Micturition painful; urine copious; specific gravity 1003; almost colourless; no albumen. When it became very desirable to have the quantity of urine measured, it was impossible to do so in consequence of its involuntary escape into the bed in great part. The abdomen at most prominent part measured thirty-two inches in circumference. The uterine cavity measured six inches and a half in length. A herpetic eruption with acute inflammation, covering the perineum proper and the posterior parts of the labia majora, without considerable swelling, appeared a week before death,

and gradually faded. A fortnight before death she was seized with uncontrollable vomiting, which lasted for eight days. Then she began to have twitchings of all the body, which never ceased for many minutes. Twice she had regular convulsive seizures. Generally she was quite sensible, but had a degree of stupor which increased as the end approached. The state of the pupils has not been noted in the record. *Inter alia*, the following statements are given in the autopsy:—Right kidney small, wasted; capsule comes off with ease, leaving surface smooth, pale, mottled with a few bloodvessels; cortex narrow, white; pyramids pink; ureter much dilated and tortuous, nearly as big as to admit a finger. Left kidney and ureter same as the right. The two weighed eleven ounces."

In retention in the bladder the organ becomes dilated. Sometimes the urethra becomes dilated. The bladder is slow in becoming irritated, but sometimes it becomes inflamed, and even gangrenous. Then, in retention in the bladder, the ureters become dilated, and the kidneys become injured and what is called dilated too. In cases of retention in the bladder it is always a very valuable sign to have the urine evacuated limpid or clear, for then you may be pretty sure that the bladder has not been much injured; but if when you draw off the urine you find that it is like porter, dark, grumous, mixed with a little blood, then you may be very sure that a serious injury of the structure of the bladder has taken place.

In ureteral retention you may have one ureter or both affected, and retention with dilatation may be the effect of a kink or of compression.

The symptoms of replete bladder everybody knows. You feel the enlarged organ as a cyst in which there is generally not fluctuation, but a feeling of fluid. The case is made quite clear by putting in a catheter and emptying it. Often there is no pain connected with this great dilatation of the bladder, and generally there is only pain at the early stages of the dilatation. This is well illustrated in the case of children who have been retaining their urine from fear. They have immense pain for a while, but soon the pain passes off, and the desire to make water, while the bladder is getting larger and larger. If the retention is further continued you may have micturition, and even frequent micturition; then the retention is incomplete; and, lastly, you have the uræmic symptoms which I have described to you.

In cases where the retention is in the ureter how are you to diagnose? It has been alleged that you can feel the dilated ureter. I have never been able to do so. I have repeatedly tried, and I remain doubtful if it ever can be felt—certainly never with any great degree of assurance. I advise you, however, in a case in which you suspect retention in the ureters, to pay a great deal of attention to pain in the flanks. Every case I have seen of the kind has complained of pain in the flanks and down the thighs; and these pains without uræmic symptoms, which may be at first absent or very slight, are, so far as I know, your only guides. There may, however, be also the low specific gravity of the urine.

Before I conclude I must say a few words in regard to the treatment in these various cases. The great thing is to remove the cause, and therefore I need say very little on most kinds of retention. A great rule in hysterical retentions is *not* to draw off the urine. If you once begin to do so you will have plenty of work supplied to you. I do not mean to say that in no case are you to draw off the urine, because the bladder may become so distended that if you did not draw it off you would do the woman serious injury; but after drawing it off, and after observing that the bladder has contracted, I recommend you to abstain from further assisting the woman. Of course you must be quite sure of your case—that it is a hysterical case: and here the importance of diagnosis is immense. It would be a dreadful thing to do a woman a serious injury through having mistaken her case for hysteria. The way of treating these cases was well illustrated in an example which I had not long ago in the hospital, where a woman had been the torture of the physicians in the district from their being sent for at any hour of night or day to draw off urine. She was the *protégée* of all the Ladies Bountiful in the neighbourhood, so that the doctors were afraid to treat her heroically. When she came into the hospital I said aloud, in her presence, what I did not mean—that although the bladder burst, the urine was not to be drawn off. It never was drawn off again. She

made her water regularly after that, and went home cured, very much against her will. Repeated catheterism is sometimes required in cases of dilated bladder in consequence of its large size and imperfect action; and some cases of irritable bladder, from extreme size, are cured by repeated emptying by a catheter and allowing the bladder to contract.

There is a curious mystery about some cases. For, while the cause continues, you frequently have retention for only a short time. While the cause continues, and indeed in some cases appears to be getting greater, the power of evacuating the bladder returns, apparently quite capriciously. The great treatment, then, in cases of this kind is, as you see, to evacuate the bladder.

In cases of retention from obstruction of the ureter the removal of the cause will in future come to be a much more important matter than it has been hitherto, in consequence of the circumstance that the danger has not been recognised, or very seldom recognised; and the danger of obstruction of the ureter is very considerable. For instance, in the case of uterine fibroid producing nervous symptoms you can easily conceive the urgency of removing the cause is very great. In the case I have read to you I do not think any operation would have been successful, yet if we had fully appreciated the cause of the symptoms we should have been urged to an operation much more strongly than we actually were in that case.

ORIGINAL COMMUNICATIONS.

FOUR CASES ILLUSTRATING THE CLINICAL HISTORY OF LOCOMOTOR ATAXY.

By JAMES RUSSELL, M.D., F.R.C.P. Lond.,
Senior Physician to the Birmingham General Hospital.

(Continued from page 392.)

THE two following cases exhibit deviation from the typical arrangement of the symptoms in locomotor ataxy, in the fact that the ataxic symptoms constituted the first stage in the patient's history; the characteristic pains appearing at a later period, and holding throughout a very subordinate position. In both patients, too, there was an unusual condition as regards the ocular symptoms. In the former of the two these symptoms, though at last attaining complete severity, constituted the latest development of the disease. In the second they were absent altogether eighteen months after the establishment of the ataxy, unless for the slight confusion of vision described by the patient, which indeed preceded all the other symptoms; in this respect, the order of its occurrence, the ocular disorder certainly answered to the typical description as well as in its nature, consisting, as it probably did, in slight incoördination of the ocular muscles; but it had ceased altogether when the patient came under my care, here again not altogether out of keeping with what may frequently happen.

In the first case the usual order of symptoms is curiously reversed. First, distinct ataxy of the inferior extremities, with numbness, and this clearly apart from any sign of paresis, for the patient was walking eight miles in the day. In three years' time implication of the upper extremities in the motor disturbance and in the numbness. Then six months later the appearance of typical pains in the lower extremities, but never affecting the upper extremities—at least, so long as the case was under my observation. Twelve months later still, the patient observed the first evidence of ocular imperfection, though probably the actual commencement of the imperfection was not exactly noted; and a year and a half subsequently he is found with advanced atrophy of the optic discs. Although, however, pain had constituted so subordinate an element in the case, it is to be noted that certain abnormalities of sensation were present from an early period; and that whilst under our observation there was a considerable degree of anæsthesia.

Taking next the second case, we find that motor incoördination was the first symptom noticed by the patient, except the slight though very characteristic derangement of vision, which the patient associated, rightly or wrongly, with certain peculiar circumstances in his condition. I found his discs healthy; and in this instance again the pains were

of very much less importance than the motor derangement. But in this second patient the disease had only been present for eighteen months; probably both pain and ocular defect will assume a higher degree of importance as time goes on.

Duchenne expresses himself very strongly in affirming that "les douleurs fulgurantes" are scarcely ever absent. Once in more than a hundred cases they had been deferred until the second, the ataxic period (*op. cit.*, 638, note). Trousseau (*op. cit.*, page 758) is emphatic in stating that sometimes the lesions of motility constitute exclusively the sole symptom, the patients never presenting, at any period of the case, other troubles worthy of note. Erb, again, whilst regarding the pains as undoubtedly the most constant of the symptoms, admits their occasional absence; this absence of pain having occurred in twenty-two out of 104 cases (Topinard), and in eight out of sixty cases of his own. But he also shows that they may occupy a position in importance much below the motor phenomena, by saying that in some cases the individual attacks of pain are separated by intervals of months or even of years (page 548). He also observes that the pains sometimes commence at the same time with the other symptoms, and sometimes follow them.

It is of course impracticable to connect these, and similar departures from the natural course of a case of locomotor ataxy, with the anatomical peculiarities on which they depend, without knowing more than we yet do know of the direction pursued by the morbid changes in an ordinary case of the disease. One cannot but note a remarkable fact as regards the pains in their relation to the ataxic phenomena; that is, how long a period, even extending over many years, may separate these two stages of the malady. We may ask, Do these two successive stages in the normal disease indicate progression of one and the same morbid process; irritation at the commencement, passing, with varying degrees of rapidity, into degeneration and destruction at a later period; or do they indicate extension in the tissue-changes themselves in a transverse direction?

Dr. Lockhart Clarke (*British Medical Journal*, ii., 1869, 344) suggests, as an explanation of the ataxy, that it is the consequence of irregular muscular action, produced by inequality in the tonicity of different muscles concerned in performing particular acts. This tonicity, he points out, "is absolutely essential to a proper co-ordination of voluntary movement," and this "physiological state of the muscles (is) dependent on reflex action." Now, the reflex action being "immediately dependent on impressions conveyed from the muscles by the posterior roots" to the central grey matter, will be variously interfered with according as more or fewer of the nerve-fibres in the posterior roots are damaged; thus particular muscles in a group will be thrown out of gear, so far as definite movements are concerned. Some later experiments by Goltz may appear at variance with those on which Dr. Clarke relies in supporting his opinion, but the hypothesis must still retain great value in any discussion of the subject. M. Charcot, basing his opinion upon certain observations of his own, and on others by M. Pierret, believes that locomotor ataxy commences in the external portion of the posterior columns, "les bandelettes latérales"; sclerosis of these bands he regards as the essential anatomical fact in locomotor ataxy ("Leçons," t. ii., 12). These bands he notices correspond to the intermedullary distribution of those nervous filaments emanating from the posterior root, "les faisceaux radiculaires internes." So far he and Dr. Clarke run together in explaining the pains, but he goes on to suggest that, in addition to these sensitive bundles, there are others which establish in a vertical direction connexion between the different parts of the cord. As is well known, a similar explanation of the function of the posterior columns of the cord was formulated by Dr. Todd ("Cyclopædia of Anatomy and Physiology," iii., 721 R.). That careful observer and accomplished physician foreshadowed the distinction, now fully recognised, between paraplegias from weakened muscles, and paraplegias from disordered muscular action. Charcot, however, and Erb in a larger sense, express their conviction that wherever the morbid change may begin, it tends sooner or later to spread transversely, as well as in a vertical direction, and much of the inquiry relating to the characteristics of the successive stages must be conducted with preference to the direction in which this extension is effected.

It is to be remarked that in both the two cases there was

very marked interference with the integrity of the sexual functions, in the second case to a remarkable extent; and further that the method of interference was by annihilation of erectile power. Hence it appears that the particular nerves affected were the *nervi erigentes*, coming from the sacral plexus; for injury to the pudic nerves does not affect the circulation in the penis (Vulpian); these nerves being centripetal or excitator. The early period in the case at which this interference occurs, together with the equally early interference with the function of micturition, both specially apparent in my second case, certainly support Dr. Clarke's opinion that the grey matter of the cord (the posterior cornua) suffers early in the course of the malady.

Two questions as to the cause of the disease are suggested by the second of the two cases; like the one I have already narrated, there is a clear suggestion of syphilis. I much regret that, relying too much on the previous administration of iodide, I did not push it myself whilst the patient was under my charge. Secondly, had the protracted exposure of the dorsal and lumbar region to heat any share in causing the disease? The patient's opinion went entirely in that direction, and it is to be noted that it was during the period of his exposure to the heat that the ocular phenomena were developed; and that they left him when he changed his employment.

Finally, I may notice the age of the first patient—it was sixty years; though he had been ill for six years. The disease is said to be comparatively rare after fifty years, but Trousseau has met with it in a man of eighty.

Case 2.—J. S., aged sixty, married, watchman. He dates the commencement of his ailment six years ago, when he first found himself troubled in walking. This took place after a particular wetting; but he adds that before that time he had been sensible occasionally of peculiar sensations “like cramps” in the calves of his legs, and that on the day of the wetting he had felt some “want of elasticity” in the right foot; it fell flat on the ground, and seemed as if he had not command over it. On the day referred to, having stood for an hour and a half sheltering, with his boots full of water, his feet became very cold. As he was walking home he felt increased “deficiency” in his right foot. Eight or nine days after, this deficiency affected the left foot also, and he then felt numbed in the feet. As his ailment progressed he became inconvenienced in walking through instability in his feet; he was unable to stand still, and after rest had difficulty in starting again; and his feet showed a tendency to cross. He could wheel round well, but could not get on well in the dark. He, however, walked seven or eight miles on the day preceding that of his admission. Fully three years after his lower extremities began to suffer, he became aware that his hands were failing him; he found himself unable to write legibly, and they have continued to become more unserviceable to him; his fingers also felt numbed.

He had no pain until two years and a half ago—more than three years after the ataxic symptoms commenced; he then felt violent starting pains in his legs, as though something were darted into them; in the soles of the feet, especially under the arch; in the calves or over the shin bone. The pains were paroxysmal, and continued for two or three, or it might be for nine hours. He has not had pain in his arms. During the five months of his residence in hospital the pain was only complained of occasionally: two severe paroxysms are specially mentioned in my notes, one of three, the other of seven days' duration. On one occasion, also, he had for three days sharp twinging pain, “coming and going,” just at the tip of the right twelfth rib. Sensation has become gradually dulled in the legs and feet; it has been rare for him to be conscious of his feet touching the ground, though, he adds, he varies in this respect. On one occasion I saw his slipper drop off whilst he was walking along a flagged corridor: he was quite unaware of what had happened.

It was only a year and a half ago that he found his vision was becoming dim; the dimness has advanced slowly. He is not aware of ever having had any form of double vision. The discs we find in an advanced stage of white atrophy. He distinguished No. 6 Jäger with the left eye, No. 14 with the right; he underwent some amendment in this particular before he left the hospital, being able to read No. 10 pica with moderate ease, and to distinguish some words in No. 8. The pupils are very small, and entirely refuse to dilate by withdrawal of light even for an hour; but they dilated

fully to two-grain solution of atropine. He has never had vertigo. Early in his disease he noticed gradual impairment of sexual ability, though without loss of desire; lately, indeed, sexual passion has rather increased, and he has frequent erections independent of mental stimulus.

The only cases of disease known in his family are some cases of consumption; among the patients are two of his brothers. He looks old, is pallid, very grey, no arcus, muscles well nourished. He has lost two stones in weight during the last eighteen months. The muscular power of the limbs is probably normal. The sounds of his heart are feeble. His urine is free from albumen.

His mode of walking need not be described; it is thoroughly characteristic of his disease: a little slip easily brings him to the ground. He sways somewhat when his eyes are shut, but stands from five to thirty seconds before requiring support. He is quite unable to pick up a pin with his eyes closed, and believed he had succeeded, though holding nothing; he is as unsuccessful with a small lead pencil; when looking, he still fails with his right hand, but succeeds with his left. His difficulty well illustrates the asynergy between the long flexors and extensors, on the one hand, and the interossei and lumbricales on the other, so well described by Duchenne (page 778). But when blindfolded, he touches his nose quickly and accurately with either hand. Tactile sensibility was tested repeatedly. The soles of the feet were markedly anæsthetic, with the exception of the arches, which were so to a far less degree. (a) Sensation was considerably delayed; on one occasion noted, for five seconds. Several times he said he was being touched when no contact was made. The dorsum of the feet was more sensitive, and the legs were decidedly less anæsthetic than the soles. In the upper extremity the thumbs were more sensitive than the fingers, but together with the palms were very insensitive. One note is that the points were not distinguished at a distance of two inches on the fingers. The condition of the fingers was about on a par with that of the soles of the feet. The arms were more sensitive than the fingers, but no particulars of test by the compasses are given. To temperature, sensibility was low in the fingers, normal in the arms, delayed in the soles. Sensibility to tickling was very low. Electro-sensibility was low in upper and lower extremity, and especially so in the soles and in the front of the right leg. Contractility was very low, especially in the upper extremities, but was not so depressed as sensibility. The lower extremities were tested with weights once only. On that occasion, though there were some failures with a difference of half a pound, the replies were generally accurate, but delayed sensation was indicated by the time occupied before replying. The test applied to the upper extremities was not sufficiently delicate to be worth noting.

There was no reflex action from tickling the plantar surface of the feet. The knee and heel phenomena were entirely absent, and no reflex action resulted from striking the tendon of the triceps brachii or the extremity of the ulna.

Little need be said of treatment, since it entirely failed of any good result. It included, among other things, the continuous current, and the liquid extract of damiana, mentioned by Dr. Althaus, carried up to half-drachm doses

MARTELLEMENT.—The tribunals of the Seine Inférieure have recently been occupied with a curious case relating to the voluntary mutilations which young men practise upon themselves in order to escape the conscription. This operation is termed *martellement*, and consists in producing the deformity of one or more toes by causing a contraction of the flexors, the individual so operated upon walking on the ends of the toes instead of supporting himself on his plantar surface. As the result of an inquiry that has been instituted, it appears that *martellement* has been practised in the locality for more than forty years, and that since 1839 all the conscripts, with the exception of three, have gained exemption. No information has been obtainable as to the mode in which the operation is performed. The young man who was accused, formerly a good walker, has of late seldom left the house, and for some months has ceased to appear at the village balls; and on examination it was found that he had recently undergone *martellement*.—*Rev. Méd.*, Oct. 11.

(a) Allowance was made for the thicker cuticle of the bearing parts of the plantar surface.

REMOVAL OF LARGE FIBRO-CYSTIC TUMOUR OF THE UTERUS : RECOVERY.

By J. KNOWSLEY THORNTON, M.B. C.M.,
Surgeon to the Samaritan Free Hospital.

FIBRO-CYSTIC tumours of the uterus are so rare, and their successful surgical treatment is so much more rare, that I make no apology for publishing a single case of the kind.

H. E. T., aged forty-six, married, and mother of two children, was first seen at the Samaritan Hospital four years back. Mr. Spencer Wells also saw her, and agreed with me in the opinion that she had a fibroid tumour of the uterus. It was of only moderate size, and we both strongly advised her not to think of any operative interference. She had noticed some increase of size a year or two before she came to the Samaritan. She returned twice after this first visit, and on each occasion was seen both by Mr. Wells and myself, and received the same advice, the tumour meanwhile growing slowly.

In November, 1878, she found her way to the out-patient department, and was seen by my friend and colleague Dr. Champneys, who brought her to my wards for one of our Friday consultations. The tumour had now enlarged enormously, and there was a sort of doubtful fluctuation. Mr. Wells and myself independently, and not knowing that we had seen the case before, both thought it was one of those rare tumours of the broad ligament named by Virchow "*Fibroma mollusum*." She was still advised not to think of operation unless increase of size or some urgent symptoms should render interference absolutely necessary.

In June, Dr. Champneys again sent her to me with a note as to the great increase of size, and a suggestion that an exploratory operation would be advisable. I admitted her as an in-patient, and asked Mr. Wells to see her again. Dr. Champneys had said in his note, "She has got much larger, principally, I think, from ascitic fluid." Mr. Wells quite agreed with Dr. Champneys and myself as to the advisability of an exploratory incision, and we failed to decide whether the fluid was in the peritoneum or in a very thin cyst. The fluctuation was indistinct, and the question arose as to whether a soft semi-solid tumour had ruptured; but there had been no symptom of such an event.

Menstruation had been regular, and her general health fair until the rapid increase in size; since this began she had lost flesh fast, and at the time of admission was extremely emaciated, and had a rapid, wiry, and weak pulse, and no appetite.

On June 30, at 9.30 a.m., she was placed under the influence of bichloride of methylene by Mr. Doran, and, assisted by Mr. Meredith, I commenced an exploratory operation. The first incision, which was about four inches long, exposed a very soft reddish tumour, clearly uterine. I passed in my hand, and found a very large pedicle at the left upper angle of a somewhat large fibroid uterus; both ovaries healthy, and in their normal situation. Feeling certain that it was possible to remove the tumour, I extended my incision to seven inches, and after separating a large patch of adherent omentum, which required several fine carbolised silk ligatures, I found behind the solid anterior portion of the tumour an enormous cyst with thin walls, through which I could see a dark bloody fluid. Having emptied this cyst with the trocar, I found that the pelvic portions of the tumour were chiefly cystic. There were many cysts, all much of a size, and so thin and universally adherent that I was obliged to break them up *in situ*, much cyst-contents and blood pouring over the uterus, ovaries, and rectum. Having cleared the pelvis and separated some parietal and intestinal adhesions, I turned the tumour over to the left side and downwards, so that Mr. Meredith supported it on the left thigh of the patient. I was now able to see what I had already examined by touch—a thick vascular pedicle springing from the back and left angle of the fundus uteri, so that it was possible to include the whole in the largest Spencer Wells clamp without including the left tube or ovary. I transfixed it with a strong carbolised whipcord ligature, and applied a temporary clamp, and cut the tumour away in order to be able to see more exactly where the permanent clamp should be applied. Having put on the permanent clamp, I tightened it as the temporary clamp was removed, and the whipcord cut away by Mr.

Meredith. Not a drop of blood was lost during this part of the operation, except what was in the tumour, and Mr. Doran remarked on the immediate improvement in the condition of the patient when the tumour circulation was thoroughly cut off by the first clamp and ligature. A good deal of sponging was necessary, and some troublesome oozing was still going on from the parietal and omental adhesions high up in the abdomen when I closed the wound.

I hesitated at first whether to use a glass tube for drainage, but feeling confident as to my antiseptic precautions during the operation, and thinking that discharge of the serum and blood would further weaken the patient, and also that it would be very difficult to keep all aseptic if I had a tube opening beside the clamp with such a large stump, I decided to entirely close the peritoneum at once. I dressed as usual with carbolised gauze, taking care that the surface next the wound was well moistened with the lotion before I applied it; because dust which may have settled on the gauze just before its application has not had time to be acted upon by the carbolic acid in the gauze, and may hence be applied in a septic condition directly to the wound by the very dressing which we use to avoid septicity.

The patient was placed in bed at five minutes after eleven, one hour and thirty-five minutes from the time she lay down on the operating-table.

She was much collapsed, cold, and blue; axillary temperature 97.8°; but she rallied rapidly, and at 9 p.m. was very comfortable, perspiring well; temperature 100.8°, pulse 120, respirations 20. During the first two days progress was satisfactory: pulse quiet and of fair strength; flatus passed well, and there was plenty of urine. Menstruation commenced on the second day, and in the afternoon, fifty-four hours after the operation, temperature began to rise and the pulse varied from 108 to 120; at 9 p.m. the temperature was 103.4°, but as she was perspiring well and there was no unfavourable symptom except the restlessness, and I did not wish to check the menstrual flow, I did not put on the ice-water cap, as I generally do with such a temperature. At four the next morning she had a slight rigor, the temperature remaining over 103°. In the middle of the day the pulse was again 120, respiration shallow and rapid, so the ice-water cap was put on, with the temperature at 104°. It at once began to fall, with a proportionate decrease in the rate of pulse and respiration. On the evening of the sixth day the temperature was normal, and the cap was removed; but at 8.30 p.m. on the seventh day it was 102°, and the cap was put on again and kept on till the ninth day, when it was finally removed. During this time I dressed the wound daily under the spray, and was somewhat anxious as to its asepticity, as the gauze about the clamp had a sour smell, and I was afraid some cause of putrefaction in the clamp-hinge might have escaped the carbolic acid when the clamp was cleaned. On the third day I detected a considerable quantity of fluid in the recto-vaginal pouch, which bulged much in the vagina, and I have no doubt that the reabsorption of this bloody serum was the cause of the high temperature, and I regard the case as an example of the fever described by Billroth and attributed to reabsorption of effused fluids. The bowels were cleared by enema on the ninth day, and on the eighteenth day I removed the clamp, with slight hæmorrhage from the centre of the pedicle stump, which was easily stopped by solid perchloride of iron. She was up on the couch on the twenty-fifth day, and walking about four days later, but remained in the hospital till the forty-sixth day after operation, as I was anxious she should go straight from the hospital to a convalescent home. The solid part of the tumour weighed after removal 20 lbs. 7 oz., and there were 41½ pints of fluid, or in all 62 lbs. The solid portions of the tumour were in part the ordinary fibromyomatous tissue much infiltrated with serum, which in some places formed false cysts of considerable size; but the larger and more truly cystic portion of the tumour was a cysto-sarcoma, the solid portions being rich in large fleshy multinuclear cells with quantities of immature round and oval granular cells. There was one very large cyst with thin walls, covered externally with peritoneum, and internally with small flat nucleated cells, more like those found lining extra-ovarian cysts than those in true ovarian tumours. Besides this large cyst there were many smaller cysts grouped together much as they are in a multilocular ovarian tumour. The main mass of these filled up the pelvis. In some places their walls were as thin as paper, but even then the muscular

element could be traced, mixed with the larger cells. I am indebted to my friend Mr. Meredith for some microscopical preparations and drawings of this part of the tumour, which have aided me much in forming an opinion as to the exact nature of the growth.

I suspect the term "cysto-sarcoma of the uterus" would more correctly describe all these cases than the older name I have used above. It is noteworthy that they usually arise in patients who have been for some years the subject of fibroid tumour of the uterus: suddenly there is a rapid increase of growth with formation of cysts; a degeneration in the growth, or rather a change from homœoplasia to heteroplasia. There are too few cases of which the after-history has been recorded for us to determine whether they follow the usual law of heterologous growths and recur.

I used the clamp in this case because I have seen it answer remarkably well for the pedicle of uterine tumours in the hands of Mr. Spencer Wells, and I have not found the silk ligature answer so well when dealing with a large solid pedicle of uterine tissue. I still, however, much prefer the ligature for the ovarian pedicle, and increased experience has fully confirmed the views on this subject published in my paper in the *British Medical Journal*.(a)

From what I have seen of operations for the removal of large uterine fibroids and fibro-cysts, I believe the stump is apt to pour out a considerable quantity of serum when treated by the ligature, and in very thick pedicles it is quite likely that as the tissues shrink a certain amount of blood escapes with the serum. It therefore becomes important to consider whether it is best to keep the pedicle outside, or to prevent exudation by the use of the actual cautery. My experience of the cautery has been very small, but I have not been favourably impressed with its use in other hands, and I certainly feel more comfortable when I know that the pedicle is secured either by clamp or ligature. I cannot, however, regard any extra-peritoneal method as altogether satisfactory, and I think that with increased experience we may find that some combination of ligature and suture of flaps over the raw surface of the pedicle will answer best. In the case recorded above, any increase of the quantity of effused fluid in the peritoneum would probably have increased and prolonged the pyrexia, and might have thus endangered the life of the patient.

I may mention that this patient was nourished during the first three days entirely by enemata of strong beef-tea (three ounces every two hours); a little weak brandy-and-water being given by the mouth occasionally. The enemata were continued up to the seventh day, and then gradually discontinued as she began to take more nourishment by the mouth.

I frequently employ enemata in the same way after ovariectomy, commencing in some cases almost immediately the patient has recovered consciousness. Laudanum or wine is added as required. If the patient is very weak, a tablespoonful of port wine in each or every second enema is very useful, and is preferable to brandy, which soon renders the rectum irritable. I am indebted to my colleague Dr. Day for this suggestion, and have found it a most valuable one. When enemata are given in this way the nurse passes the female pipe of an ordinary Higginson's syringe into the rectum ten minutes before each injection, and allows it to remain there till the fresh injection is given, so that refuse of beef-tea and flatus pass freely away before the fresh supply of nutriment is given.

One word as to the diagnosis in this case. In the early stages it was clear enough: an ordinary fibroid outgrowth from the uterus. Then came the cyst development, with general infiltration of serum, leading to the opinion that it was a fibroma molluscum. This was clinically correct, though not histologically so. It was a fibroma infiltrated with serum; and a fibroma molluscum is merely a peculiar soft kind of connective and fibrous tissue of which the individual elements as well as the lymph-vessels and spaces are distended with serum. When seen shortly before operation, distension had become so great that accurate diagnosis was no longer possible.

The patient is now at the convalescent home, and I hear from her husband that she is quite well and rapidly regaining her strength.

Park-street, Grosvenor-square.

(a) "The Silk Ligature as a Method of Securing the Ovarian Pedicle: its Advantages and Disadvantages; with Brief Notes of its Results in Thirty-eight Cases" (*Brit. Med. Jour.*, January 26, 1878).

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

LONDON HOSPITAL.

MR. HUTCHINSON'S CLINIQUE, OCTOBER 6.

Cranial Exostosis.

A GIRL, aged about nine years, was brought into the theatre with a lump about as large as a pigeon's egg, situated in the left temporal region. This lump was hard, fixed, and had been noticed for about two years. It was evidently a bony tumour. Mr. Hutchinson remarked that the situation was a somewhat unusual one, and that where there was one such growth noticed there were probably others, the most likely situations being on the femur or tibia, just above and below the knee. In this instance the growth, however, was single. It might generally be inferred that an exostosis was pedunculated, even if, as in the case under notice, it should be felt growing like a piece of rock from the subjacent bone. Most likely if an incision were made a distinct pedicle would be found. The question arose as to the propriety of operating in such cases. That was almost entirely a matter for the patient or the patient's friends to consider, as such growths were not dangerous, were generally quiescent through life, and, unless for the sake of removing a deformity, there was usually no necessity to interfere. The operation for the removal of bony tumours was not without danger, and he had known several cases which had been operated on where the patient had died. The danger of inflammation of the bone was so great that some years ago he had made up his mind never to touch such a tumour, but he believed that now, under Lister's antiseptic treatment, there was much less reason to fear a bad result in these operations.

Stone in the Bladder—Operation.

A man, aged sixty-seven, was placed on the table. He had been under notice for three or four years, and the last year or two it had been known that he had a stone in the bladder. It had given him very little trouble, and when he was in the hospital, about a year ago, Mr. Hutchinson had advised him not to have it operated on. Since he had gone out he had suffered a good deal of pain in moving about, but there had been at no time any cystitis or very urgent symptoms. He was now about to have the stone removed by lithotomy. Mr. Hutchinson preferred this, as in estimating the amount of pain the patient would have to suffer, and the likelihood of recurrence after crushing, he considered that operation not at all advisable. In cutting for the stone the rectangular staff was used, the deep groove in it lessening the chance of the knife slipping. The perineum was very deep, but the stone was extracted without difficulty in the ordinary manner. It was about an inch and a half long by one inch broad, and rough and nodulated on the surface. On making a section of it, it was found to consist internally of alternate layers of uric acid and urates, surrounded by a coating of oxalate of lime. Mr. Hutchinson said he had never seen exactly such a stone; the condition was a rare one, as although the oxalic and lithic diatheses frequently alternate, it was more usual to find the oxalate forming the nucleus, and the uric acid surrounding it. The usual tube was passed into the bladder, and surrounding it was a hollow india-rubber bag surrounded by calico, and communicating externally with a long tube by which it could be inflated. This has been found to be very effectual in checking hæmorrhage, as when the bag is inflated it applies steady and equable pressure of easily graduated amount to the surrounding parts.

Anterior Staphyloma—Excision of Eyeball.

A man was brought in with old-standing staphyloma of the cornea, the parts protruding in a conical manner, so that the eyelids could scarcely close. Patient was anxious to have the deformity removed. In such a case it was impossible to save the eye, and the choice lay between two operations. Either he might perform abscission, removing the front of the eye behind the iris and ciliary region, or remove the whole eyeball. Mr. Hutchinson considered it doubtful if there were any advantages to be found in the

first operation. If the patient were to wear a glass eye, the motion of the stump in complete excision would probably be quite as good, while in the partial operation there was always the chance of the remaining part not healing kindly, but sloughing and running on to disorganisation of the whole orbit. In complete excision the healing operation was much quicker and surer, and as patient was a somewhat unhealthy man, he preferred, on the whole, to take away the entire globe. In former times he remembered that excision of the eye was looked upon as one of the most serious operations, on account of the bleeding resulting from it, and matico, the actual cautery, and other powerful astringents, were all used freely. Now, by simply keeping close to the sclerotics and dividing all the muscles close to their insertion, the muscular branches of the vessels were not injured, and the operation was an exceedingly easy one. On the removal of the eye the lens was found to have been almost completely absorbed. The parts behind were normal, but the cornea and ciliary structures were completely disorganised.

EXCISION OF SHOULDER-JOINT FOR DISEASE FOLLOWING RHEUMATIC FEVER.

(Under the care of Mr. McCARTHY.)

James M., a labourer, aged twenty-six, was admitted on June 23. Patient had been in the hospital three years and a half ago, suffering from an attack of acute rheumatism. He was pretty well when he was discharged, but very weak, and had continued to attend for two months as an out-patient, when he gave up coming as he felt quite well. Some months afterwards he noticed some pain and stiffness in the left shoulder on moving it, and he could with difficulty put on his clothes or do his daily work. His condition continued to get worse, and in the spring of this year he again came to the hospital and attended as an out-patient, and was subsequently admitted. On admission patient was a stout, well-nourished man. The power of voluntary movement in the left shoulder-joint was found to be very limited, and passive motion was painful. The arm could be moved through a considerable space; but this was principally obtained by the rotation of the scapula on the trunk, and not by joint action. There could be felt, on moving the head of the humerus in the glenoid cavity, some crepitus like the rubbing together of two porcellaneous surfaces. The joint was a little swollen, but there was no indication of any osteoid growth. The treatment adopted consisted at first of bandaging the arm to the side, and the shoulder was painted with iodine; but little change resulted from this, although, after some days in hospital, the pain in the joint became less, and the movements of the parts a little better. This improvement did not, however, continue; and on August 2 Mr. McCarthy excised the joint and the upper part of the humerus by a longitudinal incision over the head of the bone, with the usual antiseptic precautions. On examination the joint-surfaces were seen to be considerably eroded, and an abscess was found in the head of the humerus. The subsequent progress of the case was in every respect satisfactory. The wound healed up well; the temperature never rose above 101° ; and passive motion was commenced on August 23. On September 7 the wound was completely healed, and there was very considerable power of motion in the shoulder, without pain. Patient's general health was good. The cause of the condition in the shoulder joint was apparently to be sought for in the old attack of acute rheumatism. There seemed to be no grounds for attributing it to any strumous taint, as the aspect of the patient and the quick healing of the wound were rather evidences of a tolerably sound constitution.

HEREFORD GENERAL INFIRMARY.

CASE OF CHOREA IN THE AGED.

(By Mr. C. J. DEVIS, House-Surgeon.)

J. G., aged seventy-nine, a pensioner, admitted August 15, 1879, under the care of Mr. Turner, suffering from a simple fracture of the shaft of the right femur, caused by slipping down on an already crippled limb. The greater part of the patient's past history is obtained from a twelve years' neighbour, his own evidence not being trustworthy. He has been a strong, healthy old man, but very intemperate.

Has never spoken of having had rheumatism, gout, or any nervous disease. Has had one child, who died consumptive. His family not known to have suffered from any nervous ailment. Nothing was noticed about him until the latter end of the year 1878, when he was thought to be getting "weak in the head." He was very irritable and childish, often losing his memory, and becoming very drowsy at times—so much so that in December, 1878, he fell asleep in front of the fire, allowing it to scorch his clothes, skin, and deeper tissues sufficiently to produce the sloughing out of the whole of the patella, the knee-joint being fully exposed, and subsequently granulating up, becoming firmly ankylosed at an angle of 135° . Nothing but a superficial scar now remains to indicate the great loss of tissue. Since he sustained this injury he had been much worse, being very restless and wandering at night, his memory being much lost.

Present Condition.—A decrepit old man, with decided impairment of intellect, answering questions rationally, but incorrectly; very irritable; hands very tremulous; nocturnal delirium, patient often trying to get out of bed without object; arteries hard and tortuous; arcus senilis well marked; pulse slow and forcible.

On August 25 he developed irregular, purposeless, inco-ordinate movements of the left face and upper limb, the lower limb being free. These, slight at first, became much intensified during the course of a few days, the facial contractions becoming more general, and the lower limb becoming involved. Movements truly choreic, consisting of alternations of the normal movements of the hand and forearm and abduction of the upper arm from the side, the hand being often brought round to the back of the head. The fingers are in constant motion, as is also the angle of the mouth. An attempt to touch my stethoscope was fairly successful, but very roundabout; an attempt to pick up a pin from a flat surface was a failure; the tongue is readily protruded and retained in that position; speech is much affected, chiefly from the irregular action of the lips; grasp fairly steady, and as firm as that of the sound limb; movements of the lower limb almost confined to extension of the toes and abduction of the little toe; movements never rapid and jerky, but slow and uniform in pace; all movements much increased by excitement, ceasing during sleep, but only partially whilst dozing. Volition exercises no control over the movements. Temperature normal; pulse occasionally intermitting; no cardiac bruit; urine, specific gravity 1018, trace of albumen.

Treatment.—Twenty grains of bromide of potassium, afterwards increased to thirty grains, with iron three times a day; chloral hydrate at night to procure sleep.

On September 6 considerable improvement had been made both in the chorea and in the patient's general condition, but, unfortunately, after the 10th the patient gradually sank into an asthenic state, and died on September 25 gradually exhausted. During this latter period the chorea still further diminished, though never ceasing, until it was confounded with the busy movements of the hands present during the last period of the asthenic condition. The fracture of the thigh had in the meantime become very firm, being surrounded by a large amount of callus. Unfortunately no autopsy was made.

Remarks.—The above case is well worth placing on record, if only on account of its great rarity; the only cases I have been able to find reported during the past decade being those mentioned by Professor Charcot in his lecture reported in the *Medical Times and Gazette* of March 2, 1878, and those reported by Dr. Russell in the same journal of April 27 and November 30, 1878, the latter case of which it was my good fortune to see. In addition Trousseau reports two cases, one that of a lady aged eighty-three, the other a Dublin chemist aged seventy; whilst Ziemssen, alluding to its rarity, mentions several authors as having reported cases.

The points in the present case worth noticing are—its apparent close connexion with the failing brain-power, it having been led up to by a gradually increasing impairment of intellect, its resemblance in this particular to M. Charcot's cases being the opposite of those reported by Dr. Russell and Trousseau; its limitation to the left side of the body, one case of which Professor Charcot mentions, and its rapid course. Whether the bromide of potass and chloral hydrate had any part in relieving the condition by their sedative action on the nervous system, it is, perhaps, venturesome to say positively, but the progress of the case is rather in the affirmative.

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Medical Times and Gazette.

SATURDAY, OCTOBER 18, 1879.

MR. F. S. POWELL ON A "MINISTER OF HEALTH."

At the late Social Science Congress, Mr. F. S. Powell, as President of the Health Department, delivered an address which well deserves some special notice. After remarking upon the difficulties in practical working, and the deficiencies in legislation which hinder progress in sanitary science, he went on to speak of the position of our Health Minister, the President of the Local Government Board. The first great and fatal hindrance, he said, is the political position of the Health Minister. "He is the President of a Board which does not exist; he cannot submit his schemes to a cabinet from which he is ordinarily excluded; he cannot press forward his Bills amid the friendly competition of Secretaries and First Lords, for he is neither." "He is overshadowed in debate by his colleagues, and may be superseded by them in his proper and most important functions." "He must needs administer under a sense of his secondary position." When recently there was an alarm about the possible importation of plague, the Privy Council took upon itself to revive an almost obsolete quarantine law; and when rules were issued for the regulation of dairies, with the view of guarding against the spread of typhoid fever, scarlet fever, and diphtheria, by means of infected milk, the Privy Council again took the matter in hand, apparently without any consultation with or acknowledgment of the Health Department. In fact, Mr. Powell remarks, the President of the Board has but partial command of his department; for instance, no place is found therein for factory enactments or mining regulation statutes. Dr. Ballard, within the Health Department, made elaborate reports to the President on the nuisances arising from the injurious influences upon health exerted by noxious trades; but the periodical inspection of such works, if under the Factory Acts, is relegated to another department—the Home Office. The officers of that department "continue their duties without reference to the researches of Dr. Ballard, and only by accident, or under the influence of some unofficial

enthusiasm, learn that such investigations have been made." Mr. Powell adduced other telling instances of the confusion and imperfections arising out of the present constitution and position of the Health Department, and enunciated some broad general principles. These subjects of drainage, sewerage, water-supply, and so on, ought to be taken as one great whole. According to the present practice, one engineer pours his sewage into a river, forgetful of river-pollution; another, ministering to the necessities of a great community, conveys thereto water from the uplands, heedless of the mischief which he inflicts on those lower down by diminishing the volume of the river which supplies them; while a third, in devising a great scheme of drainage, ignores the value of the water which he is eager to discharge from the district under his control. As regards drainage, navigation, and like matters, there are, according to the Lords' Committee on Conservancy Boards, between 2000 and 3000 private Acts now in operation. The construction of works for water-supply in the case of urban districts should be on a large scale, either by combination between lesser communities, or by contribution to them of water collected by towns of greater size. The water-supply should be constant. Underground sources should be carefully sought for and used. And as to sewage, the peculiarities and requirements of each district should be carefully considered.

In short, the whole subject of health should be under the charge of the Minister of Health, who should be on an equality with other ministers charged with the highest and most weighty responsibilities; and he should be in every way on a level with them. Mr. Powell observes that to his mind "this change has long appeared a paramount necessity"; and as we have not seldom urged the appointment of a real Minister of Health, it need scarcely be said that we entirely agree with him, and are glad that the subject has been so forcibly brought before the Social Science Congress.

THE MORTALITY OF THE PARIS LYING-IN HOSPITALS.

RECENT publications and discussions have brought the results of practice in lying-in hospitals much under professional notice; and the possibility of making such institutions healthy, and their general desirability, are points about which different opinions are held. Such questions can of course be decided by experience alone. A recent publication,^(a) in which the results obtained in two of the lying-in hospitals in Paris are set forth, supplies us with some valuable data, which we think will aid the solution of the problem. Upon the facts contained in it we propose to offer some comments.

Let us first say that the author seems to have been conscious how many sources of error often make the statistics of hospitals and medical charities imperfect and incorrect representations of the facts; and he has evidently taken great pains and care to get accurate figures. Before giving his statistical tables, the author describes, from a sanitary point of view, the structure and arrangements of the Hospital in question.

The Lariboisière Hospital was opened in 1854, and the statistics before us extend from that year till 1878. The number of deliveries which took place within it during that period exceeds 20,000. Before we quote the statistical results, we must make some remarks as to the author's mode of handling the figures. He points out some circumstances which, in his opinion, unavoidably make the gross mortality

(a) "Recherches sur la Mortalité des Femmes en Couches dans les Hôpitaux : Statistiques de l'Hôpital Lariboisière, 1854-1878, et de l'Hôpital Cochin, 1873-1877." Par L. de Beurmann, Docteur en Médecine de la Faculté de Paris, ancien interne des hôpitaux de Paris, etc.

exceptionally large. Many of the poor population around the Hospital are attended at their own homes by midwives; but cases either in which there is reason to expect great difficulty, or which are complicated with serious illness, or in which the midwife in attendance is unable to deliver the patient, are directed by the midwives to go into the Hospital. Cases also in which the poverty of the patient is such that she cannot get at home the necessary food and care, are sent into the Hospital. The author points out that from these causes the mortality of the Hospital must necessarily be high as compared with that of the midwives. No doubt this is so. There are, we imagine, few lying-in hospitals the death-rate of which is not made somewhat higher than it might be (in other words, slightly in excess of the average puerperal mortality throughout the country) by an influx of such cases; for a lying-in hospital which closes its doors against the most pressing calls but imperfectly fulfils its duty. But the excess of mortality thus brought about is not, if the hospital be properly managed, very great. M. Beurmann's figures, which we shall presently quote, will show this. With the object of eliminating this source of a raised death-rate, the author arranges his figures in a way to which we must take exception. He gives in one column the gross mortality, and in another what he terms the puerperal mortality—*i.e.*, the deaths which were believed to be due to causes directly connected with childbirth, as distinguished from what may be designated accidental causes; and in another column the mortality of simple (*i.e.*, uncomplicated) labour. This mode of computation is very liable to error. Cases occur in which it is very difficult to make out whether the morbid process which caused death did or did not take its origin in some lesion of the genital organs. The only true way of separating the mortality of childbed from the mortality *in* childbed, is to take the total mortality, and deduct from it the average percentage of deaths among non-puerperal women at the same period of life. If the mortality thus calculated be very much above the average puerperal mortality, this cannot result from the operation of accidental causes, which affect equally the population outside: it must be something special to the hospital, whether the puerperal origin of the fatality can be traced or not. Therefore, in considering these statistics, we look only to the column showing the total mortality, for this alone is free from error.

We find that from 1855 to 1861 the death-rate fluctuated between 5 and 10 per cent.; but after 1862 it never exceeded 5 per cent. After the year 1864 it did not rise above 3 per cent., except in the years 1871, '72, and '73, for which causes fresh in the memory of everyone may partly account. In 1878 it, for the first time, was below 2 per cent. The diminution in the mortality appears due to the precautions introduced by M. Siredey, who took office in 1872, of which it will be useful to give an abridged account.

To avoid overcrowding, M. Siredey never allows the ward to be full: out of twenty-eight beds only twenty are occupied. Each patient receives a bath before entering the ward. (This regulation, M. Beurmann mentions, received faint support, if not open opposition, from the persons who had to carry it out: it seems to us that we have in this suggestive little fact some explanation of the previous high mortality.) The bedding on which the patients are delivered is made of cheap material, so that it can be burnt after each delivery. The ward furniture is as much as possible of iron, so that it can be thoroughly cleansed. The linen is changed each time that it is soiled, and dirty linen is never allowed to remain in the ward. Sponges are never used. Each patient has napkins, syringes, etc., for her use only. Vaginal injections, if required, and all ablutions of the parts, and of the nurses' hands, are made with antiseptic solutions. The lying-in wards are as much as possible cut off from the rest of the

Hospital. No pupils are allowed in the ward between the visits of M. Siredey, except those specially attached to the ward. The lubricant used by the medical attendants is carbolic oil, which is changed for each patient; and the hands are washed in an antiseptic solution before examining the patient. Any patient who is ill is at once removed from the lying-in ward. M. Siredey would further like that students in his department should not visit other wards, should not dissect, nor make or attend autopsies; and that the lying-in wards should be entirely separate from the general wards. But it is not possible to carry out these regulations at the Lariboisière.

The natural comment of the English reader upon what we have written will be, that these precautions are most of them so obvious, and so generally observed in this country, that their description to English medical men is scarcely necessary. But we have quoted them for this reason: that they were evidently not carried out at the Lariboisière when M. Siredey went there in 1872, and the mortality before their enforcement, as compared with afterwards, shows the effect of their non-observance. The mortality in earlier years we take to be attributable to the neglect of cleanliness, and of proper precaution against the conveyance of contagion from one patient to another, and not to any special hospital virus; and it is therefore quite fallacious to adduce the mortality prior to 1872 as an argument against lying-in hospitals.

But this is not all. We have alluded to some other sanitary precautions which M. Siredey wished to carry out, but could not, owing to the construction of the Lariboisière, and the fact that it is a general hospital, and not solely a lying-in one. The conditions which M. Siredey desiderates are complied with in the Cochin; and the result we now quote. The total mortality in the years 1873-77 inclusive was 34 deaths out of 3697 labours, which is a death-rate of 1 in 108, or under 1 per cent. This rate of mortality is not much above that of private practice. It appears to us to show that the influence of the disproportionate number of bad cases which a lying-in hospital receives in raising the death-rate is not great. The figures we have quoted tend to show that by neglect of sanitary precautions the mortality of a lying-in hospital may be raised to any extent. But we think that M. Beurmann's figures, as far as they go, fully bear out his most important conclusions. In his own words, "The results obtained by M. Siredey at the Lariboisière Hospital, and by M. Polailon at the Cochin Maternity, give a plain proof that the mortality of natural labour in hospitals can be brought to nearly the same rate as in the town population outside; and that it probably would be still further reduced if more complete hygienic precautions were taken."

THE SOCIETIES.

OUR winter's work may now be said to have fairly commenced, the schools are in full activity, and the various societies will speedily be as busily engaged. That being so, a few words on the subject of their working may not be amiss at such a juncture. There is a kind of feeling abroad that we do not get at the various societies the best kind of work; and certain it is that, except now and again, we do not get the best men to take part in the proceedings. There are various causes for this: some of them might be readily overcome; some are, we fear, irremediable. The men who, from their knowledge and experience, are best fitted to enlighten us are those whose time and energies are most taken up with private practice. By the time their day's work is over they are more or less exhausted, and cannot be expected to look forward with pleasure to hurrying over dinner, and rushing out into the cold

night air, merely to hear some ambitious youth gifted with little judgment airing a crude theory or describing in wearisome detail things of everyday occurrence. Hence it is that we seldom see on the benches of a society those whom we most wish to see, and when we do see them it is often with reluctance they make any remark. For among many, again, there is another kind of feeling. Having once won their spurs, they are unwilling to encounter that criticism which is the salt of debate, but which is often troublesome, sometimes vexatious, especially when it takes the form of absurd questions. Thus it comes about, especially in the Pathological Society, that a great deal of excellent material is, so to speak, wasted. Many men will not bring specimens before the Society, however interesting they may be, if they have not also the merit of rarity; whilst the time of the Society is taken up, and the members fatigued, with wearisome details of worthless examples of pathological anatomy. We are fully alive to the difficulties in this case. It is easy to offend by any selection of specimens, but we fear the time will come when something of the sort must be carried out. The new regulations which we published some time ago, and which we now again reproduce, will have some effect in this direction, but probably not enough; and they, as will be seen, cast an invidious duty on the President. They are specially intended to apply to the simple exhibition of specimens which need no particular discussion. It might be well, however, that the option, or rather power, of selecting such from among the others should be vested in a committee of council.

The following are the conditions under which such exhibitions may be made:—*a.* The specimens or drawings must be ready for inspection in the Society's rooms not later than 8 p.m., and must remain on the table until ten minutes after the close of the meeting. *b.* A card, provided by the Society, must be placed with the specimen, and on it must be clearly written a short account of the specimen, comprising all the particulars intended for publication. The exhibitor (or his representative) must be present at the meeting, and be willing to furnish additional details if asked for. *c.* At every meeting of the Society the rooms will be open for the inspection of specimens, etc., at eight o'clock; the chair will be taken, as usual, at 8.30 p.m. *d.* The list of specimens exhibited by card will be read to the meeting by the President, and such specimens will be taken for consideration and discussion in the course of the meeting, alternately with other specimens, at the discretion of the President.

This leads us again to consider another view of the subject. Much time is nowadays lost by the unwillingness of many to open a discussion, though they will come fast enough forward towards its close. It might be well, under such circumstances, if the President had vested in him the power of calling upon some one to begin. In long debates the list is always regulated beforehand, and it might be well if some similar plan could be adapted to the exigencies of shorter discussions. Another evil which this same habit leads to is the throwing the weight of the discussion into the last few minutes, often to the prolongation, of the meeting, or, it may be, to its abortive adjournment. We would venture to protest as earnestly as we may against both of these plans, which we cannot help thinking evils. During the late Dr. Murchison's presidency of the Pathological Society such prolongations were of almost nightly occurrence. Now, we venture to think that the hour of ten o'clock is quite late enough for the termination of all ordinary meetings of societies. If men have been working hard all day they can have little powers of attention after such an hour, and such a practice must infallibly interfere with their working capacity next day. Certain presidents we could name have been as noteworthy for their punctuality as others have been the reverse; and in a prolonged experience we have seldom seen any good

done by breaking through the rule. We are quite sure that its breach encourages that delay in commencing discussion above referred to, and fosters garrulity—both equally to be deprecated.

There are other points which might be indicated, well worthy of consideration; and among these we would mention the continual violation of societies' rules—especially in one society—as to the length of papers. We do not think the rule a good one, but it should be abrogated, not broken.

THE WEEK.

TOPICS OF THE DAY.

THE proceedings in connexion with this year's meeting of the Social Science Congress at Manchester terminated last week. Before concluding, the committee of the Council of the Association was reappointed to act conjointly with a committee of the Council of the British Association on the subject of State medicine and the administration of the sanitary laws. A deputation from the town of Edinburgh, consisting of Bailie Colston and Mr. Harris, Deputy Town Clerk, were introduced, and gave the Council a cordial invitation to hold the next meeting of the Congress at Edinburgh. Bailie Colston reminded the Council of the success of the former meeting held in Edinburgh sixteen years ago, since which time the city had materially increased, and was now able to give several practical illustrations of the progress of social science in an Infirmary unsurpassed in the world, the extended buildings of the University, and in a great scheme for city improvements which had already promoted the health and decreased the death-rate of the district. The invitation was accepted, and it was officially announced that the next meeting of the Congress will take place in Edinburgh.

Liverpool is certainly not of one mind with reference to the means proposed for providing the town with an improved water-supply. A special meeting of the Town Council was held last week, "to consider and, if thought expedient, to direct the promotion by the Council in Parliament of a Bill for the purpose of empowering the Corporation to obtain a supply of water from the river Vyrnwy and its tributaries in Montgomeryshire, and that the cost and expenses of and in relation to such promotion be defrayed out of the funds or rates in the hands of the Council, or hereafter to accrue to them on the Liverpool Water Account." A note on the summons-paper stated that to comply with the Municipal Corporation (Borough Funds) Act, 1872, the resolution should be carried by an absolute majority (thirty-three members) of the whole number of the Council. The estimate for bringing the first instalment of 13,000,000 gallons a day from Vyrnwy is £1,250,000. It was decided by a majority of thirty-three votes to thirteen to promote the scheme in Parliament. In further conformity with the Borough Funds Act, however, the subject was subsequently submitted to a town's meeting in St. George's Hall; the proceedings were very animated, and resulted in a defeat of the Corporation scheme apparently by about two to one. A poll has now been demanded, which will shortly be taken.

The Medical Officer of Health for Bristol, Dr. Davies, has reported an outbreak of typhoid fever in that city, distinctly traceable to contaminated milk supplied to the retailers from a Gloucestershire farm, where the water-supply came from a polluted well situate in the midst of manure in all stages of decomposition, the water itself throwing off large quantities of sulphuretted hydrogen gas. The surroundings, Dr. Davies states, were totally unfit for a dairy, and the water simply poisonous.

The ceremony of laying the first stone of a new building

for the Royal General Dispensary in Bartholomew-close was performed by the Earl of Dartmouth last week. This Dispensary lays claim to be one of the oldest in existence. It was founded in 1770 by Dr. John Coakley Lettsom, its first treasurer, who subsequently became one of its physicians. Its object was to afford advice and medicine gratuitously to the sick poor without regard to their place of residence, and to visit such as were unable to attend at the dispensary-house at their own homes, if they lived within the City of London and its liberties. In the present day, "to prevent the benefits of the charity having a pauperising effect," a charge of one penny is made on every prescription. The work of the Dispensary was begun in Aldersgate-street in a building erected by the charity. On the termination of the lease, however, in 1850, those premises had to be given up, and the Dispensary was removed to Bartholomew-close. Since 1850 the committee have funded certain legacies, donations, &c., until they have accumulated a sum of £5348, with which the present site has been purchased. The new buildings will comprise a dispensary, waiting-room, consulting-room, apartments for the resident medical officer, and other rooms which it is intended to let for manufacturing purposes. The cost of building is estimated at about £5000, over and above the sum of £3000 now in hand, and at a breakfast which took place at the Albion Tavern after the ceremony, donations to the amount of £446 were announced.

The Sanitary Committee appointed by the States Assembly of Jersey have made a thorough inspection of the Female Orphans' Home in Trouville parish, where so many deaths recently occurred from measles and typhoid fever. They have found the water-supply unfit for use, and the drainage so imperfect as to be dangerous to health. The sleeping accommodation is also reported not to be sufficient for half the number of children received; the Committee therefore recommend the closing of the premises at once, till they can be put into an efficient state.

At the last week's meeting of the Metropolitan Board of Works, amongst the other business introduced, a report was presented from the Special Purposes and Sanitary Committee, stating that they had had under their consideration the question of the amendment of certain of the provisions relating to cow-houses contained in the regulations under the Dairies, Cow-sheds, and Milk-shops Order of 1879, and submitted by the Board on July 18 last. One of the provisions in question provided that an air-space of at least 800 cubic feet should be given in respect of each animal kept in a cow-shed, and to this a large proportion of the trade objected, urging that it was prohibitory and unnecessary. The Committee had had before them memorials from 687 cowkeepers, and a large deputation had waited upon them urging the reduction of the required air-space to 600 feet. The deputation also represented that the trade desired the fore part of the stalls to be left unpaved, or to be paved with chalk, or some similar substance, on the ground that a hard paving would injure the cows when lying down. After giving careful consideration to the representations made, the Committee had come to the conclusion that 600 feet of air-space for each animal would be sufficient in those sheds which, from their situation and construction, had satisfactory means of ventilation, and also that it was desirable to allow of three feet at the head of the cow-stalls being paved with chalk or some similar substance. They had, therefore, amended the provisions in accordance with those views, and they now submitted them for the information of the Board. The report was formally put and agreed to. In another column will be found a more important difficulty in the practical application of this Order.

A serious case of overcrowding was brought to notice last

week at the Woolwich Police-court, when a man named Thomas O'Neill, occupier of one room at 41, Prospect-row, Woolwich, was summoned by the Woolwich Local Board of Health, in respect of a breach of the sanitary regulations; and Mrs. Sanger, the landlady of the house, was summoned as joint defendant. Mr. Hughes, solicitor to the Board, proved that the room in question was occupied by O'Neill, his wife and five children; it contained barely 800 feet of cubic space, whereas the statutory measurement of the space required for seven persons was 1800 cubic feet. The deficiency was fraught with evil consequences, and both O'Neill and his landlady were liable to penalties for suffering such a state of things to continue. Mrs. Sanger expressed her willingness to be rid of her lodgers, and stated that she had given them notice to leave without avail. O'Neill's wife said they were ready to leave as soon as her husband could get other lodgings. Mr. Marsham made an order for the abatement of the nuisance within fourteen days.

In answer to a request made to him by the Secretary of the Street Accident and Dangerous Driving Prevention Society, the Lord Mayor has expressed his willingness to convene and preside over a public meeting on the subject, as desired. His Lordship further adds that he is fully alive to the dangers to which foot-passengers are subjected in the streets of London through the reckless and furious driving of vehicles.

The *United Service Gazette* announces the illness from typhoid fever of Dr. W. T. Domville, C.B., Medical Inspector-General at Haslar Hospital; but it is added that he is now progressing favourably towards recovery.

THE CALENDAR OF THE ROYAL COLLEGE OF SURGEONS.

FROM the Calendar of this institution, which has just been published, and contains much valuable information, it appears that the total income of the College during the past collegiate year amounted to £14,175 14s. 6d., derived principally from fees paid on examinations, viz., £11,367 10s.; rents from the chambers adjoining the College came to £1404 18s. 6d., dividends on stock to £1080 1s. 4d. Elections of members of the College to the Fellowship, heretofore so profitable, yielded only twenty guineas. The expenditure during the same period amounted to £14,878 11s., the largest item being in fees paid to members of the Council, Courts, and Boards of Examiners, amounting to £5522 6s.; and, considering the large amount of valuable time expended in these ways, at the most important times of the day, the sum is not at all unreasonable. For the large staff of officers and servants for the three departments of the College, Museum, and Library, salaries and wages amounted to £3915 19s. Taxes, rates, and stamps, exclusive of postage, required £1239 12s. 8d. For the Biennial Oration and Festival, £304 7s. 4d. Pensions are now reduced to £54 12s. During the past collegiate year the Council has met eleven times. The Board of Examiners in Anatomy and Physiology have held six meetings for the fellowship and thirty-one for the membership of the College; at the former 95 were examined, 48 passed, and nearly as many (47) were rejected; for the primary membership there were 785 candidates, of which number 530 passed, 222 were referred for three months, and 33 had an additional three months. The Court of Examiners held two meetings for the examinations for the fellowship and thirty for the membership: at the former there were 28 candidates, 18 of whom passed, and 10 were referred for one year's additional study; for the membership there were 507 candidates, of whom 285 passed, 58 were approved in surgery and required to qualify in medicine, 76 who were approved in surgery afterwards qualified in medicine, 164 were rejected; and the total number of diplomas granted was 361. The

Board of Examiners in Dental Surgery examined 33 candidates, 27 of whom passed to the satisfaction of the Board. The Board of Examiners in Midwifery no longer exists, as "there have not been any appointments made during the last three years, and the examinations are suspended until further notice." Students will find all the examination papers published in the Calendar.

DEATH OF PATRICK BLACK, M.D. OXON., F.R.C.P. LOND.

ALL old St. Bartholomew's men, many another medical man, and a large circle of lay friends, will be grieved to hear of the death of Dr. Patrick Black. Educated at Eton, and at Christ Church, Oxford, Dr. Black took a good degree, passing out, we believe, in the Classical Honours list. He obtained his professional education at St. Bartholomew's Hospital; took the M.D. Oxon. in 1839, and became a Fellow of the Royal College of Physicians of London in 1845. He was early appointed one of the Assistant-Physicians to St. Bartholomew's Hospital, and was for several years Lecturer on Forensic Medicine in the Medical School of that Hospital. He was also for a time, we believe, Warden of the Medical College. Later in life he became one of the full Physicians, and Lecturer on the Principles and Practice of Medicine. He held at various times the offices of Censor, Consiliarius, and Examiner at the Royal College of Physicians; and in 1855 delivered the Croonian Lectures, taking for his subject "The Forces of the Circulation," when his lectures were published in our pages (vol. i. 1855). He was also Physician to Christ's Hospital, and for some time to the Seamen's Hospital. He was never a large contributor to medical literature, but he published some pamphlets on "The Administration of Chloroform," on the "Theory of Asphyxia and Physiology of the Heart," an "Essay on the Spleen," on "Scurvy in High Latitudes," etc. Whatever duty he undertook he discharged most faithfully; and in all relations he was pre-eminently the kindly and courteous gentleman. He had suffered much from the loss of two of his sons in the naval service; and after some months of painful suffering, died at the age of sixty-six of malignant disease.

TROPHIC NERVES.

THE subject of trophic nerves and trophic nerve-centres appears to be as perplexing as ever; and nothing could well be more remarkable in its way than the diversity of results obtained by investigators in this region of physiology. It may be remembered that a few months ago we recorded (May 10, page 510) an interesting discussion that has recently been going on in Germany upon the effects of section of the pneumogastric nerves on the nutrition of the heart and lungs. The outcome of that discussion appeared to be in favour of Professor Eichhorst's view that the vagi contain trophic nerves to the heart; if not to the lungs, as has been so frequently contended. Meanwhile, this question of trophic nerves has been reopened in the classical region of the fifth cranial nerve; and we are reminded of the many discussions upon "traumatic" versus "trophic" keratitis by similar investigations upon inflammation of the tympanum. It is now nearly two years since Gellé, of Paris, announced that injury to the nucleus of the trigeminus in the medulla oblongata of the dog leads to suppuration within the middle ear of the corresponding side, as well as to affection of the eye and nose. This experiment has recently been repeated by Professor Hagen, with the modification that the trunk of the fifth nerve of one side was cut within the skull by a carefully planned incision, made without opening the head (*Archiv f. Exper. Path. und Pharm.*, xi., 1 and 2, page 39). Thirteen animals were operated on, and Professor Hagen's conclusion is that the inflammation

which undoubtedly occurs in a small number of cases within the tympanum supports the view that keratitis, after section of the fifth nerve, is "traumatic," and not "trophic." Still, it is an interesting fact that in three at least out of his thirteen cases, the observer found inflammatory signs within the cavity of the middle ear; and we may expect that other physiologists will be disposed to attach more importance to these results than Professor Hagen would appear to have done, and will probably repeat the investigation.

THE ADELAIDE HOSPITAL, DUBLIN.

ON Tuesday afternoon, the 14th inst., the new wing of this institution, built in affectionate memory of the late Lady Madeline Crichton, and called after her "The Madeline Wing," was formally opened by his Grace the Duke of Abercorn, K.G., President of the Hospital. This splendid addition, the foundation-stone of which was laid on December 4, 1878, by Lady Madeline's father, the Marquis of Headfort, has been erected by subscription at a cost of £14,000. The new structure has been planned and furnished according to the most approved modern style, and with special regard to sanitary requirements. The wards are all extremely lofty, and particular attention has been paid to ventilation. The Jennings and Tobin systems for the introduction of fresh air and warmed air have been introduced. The floors of the wards are of teak and their walls plastered with Parian cement and variously coloured. The arrangements for the performance of operations are of a specially improved character, and include a "lift" by which patients can be let down from any part of the building. On the roof of the wing is a great tank capable of containing thousands of gallons of water, the supply of which is derived from the Vartry; and numerous hydrants run through every corridor. The building has been erected according to designs furnished by Mr. J. Hargrave Bridgeford, C.E. Amongst those present on the occasion of the inauguration were Sir Stafford Northcote, Bart., M.P., Lady and Miss Northcote.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

A QUARTERLY court of the directors of the above Society was held on Wednesday, October 8, at 5 p.m., in the rooms of the Royal Medico-Chirurgical Society. The chair was taken punctually by the President, Sir George Burrows, Bart., and the meeting was well attended, the change of hour from eight to five o'clock evidently suiting the convenience of the directors. Applications for grants were received from fifty-eight widows, twelve orphans, and three orphans on the Copeland Fund. A sum of £1250 was recommended to be granted at the next meeting. The expenses of the quarter amounted to £36. The treasurer stating that the funds would allow of a donation at Christmas to each widow and orphan now receiving assistance, it was resolved that the same amount be presented this Christmas as upon the last occasion. The deaths of two widows were announced, and two orphans had become ineligible. One member was elected and the death of one reported. The consideration of the question of extending the area of the benefits of the Society was adjourned to next meeting.

THE ST. JOHN AMBULANCE ASSOCIATION.

WE have been favoured with a copy of the annual report of the Central Executive Committee of the Ambulance Association of the Order of St. John, from which it can be seen that much useful work has been attempted and accomplished under the auspices of the Association during the twelve months covered by the report. The two great objects of the ambulance department have been, as our readers are aware,

(1) instruction of individuals of both sexes and of all ranks in the first treatment of injured persons before proper surgical aid can be obtained, and (2) the more general distribution of such ambulance *matériel* as may be useful in diminishing the risk and suffering inseparable from the accidents so frequently met with in daily life. These are objects which, if proper precautions be observed, are sure to commend themselves to the members of our profession. But, especially in regard to such an undertaking as the instruction of non-professional persons in the first treatment of the injured, there is always a danger that the proverbial mischief of a little knowledge may receive frequent and painful illustration. We therefore hope that this unavoidable danger may be ever kept before the minds of the teachers and pupils of the ambulance classes, and that the department will see that its instruction be strictly confined in letter and in spirit to the first treatment of the injured. Subject to this qualification, we have nothing but the best wishes for the success of the ambulance movement, and only two weeks ago it was our pleasant duty to record an instance of the saving of a life by an ambulance pupil who had learned how to arrest hæmorrhage from a wound. We find that it is contemplated to establish advanced classes, in which those who have availed themselves of the courses already instituted may receive instruction in nursing. Much good may undoubtedly be done in this direction, though such teaching can never be so practical and serviceable as a short training in a hospital under a skilled sister or head nurse. We hope, therefore, the Association will not grant special certificates to those who merely attend these classes on nursing, for such a practice would naturally inspire the holders of the certificates with a mistaken estimate of their capabilities, and might be prejudicial to women of the poorer class who had gone through other and more practical courses of training in the all-important work of nursing. Might we hint that the tone of the report is what might be vulgarly termed "loud"?

THE SCHOOL OF PHYSIC IN IRELAND.

DR. ALEXANDER MACALISTER has been appointed to the chair of Anatomy and Chirurgery in the School of Physic in Ireland. The vacancy thus well filled was made by the resignation, some time ago, of Dr. Benjamin G. McDowell. Nine years ago Dr. Macalister was Surgeon to the Adelaide Hospital, but resigned that office, and retired from private practice on his appointment as Professor of Comparative Anatomy and Zoology, and Director of the Museum of the University of Dublin. Now he has been elected a Clinical Surgeon to St. Patrick Dun's Hospital, while at the same time we are told that one of the conditions of his new appointment to the professorship is that he shall not seek nor engage in private practice. It seems to us that, at any rate, these things are not better managed in Dublin than they are here.

THE DAIRIES AND COWSHEDS ORDER OF 1879.

A DIFFICULTY has arisen in the county of Lincoln in the working of the Dairies, Cowsheds, and Milkshops Order of 1879, which may possibly have been felt in other districts. The following is the report of Dr. Harrison, the Medical Officer, on the subject, presented last week to the Lincoln Board of Guardians:—"At Navenby the fever cases reported at your last meeting are still under treatment. None of the patients can yet be moved from the house, which remains in the same filthy and overcrowded state. The same woman is in attendance, and leaves them twice a day to milk three cows half a mile away. Another child is suffering from typhoid fever at Navenby; the mother who attends to the child also has charge of cows, which she milks. She occa-

sionally sells the milk, and makes butter for sale. The Dairies, Cowsheds, and Milkshops Order of 1879 provides for the registration of dairies and cowsheds, and for the cleanliness of the vessels used therein for containing milk for sale, and for the protection of milk against infection, and also makes it unlawful for any person following the trade of cowkeeper or dairyman or purveyor of milk to allow any person suffering from a dangerous infectious disorder, or having recently been in contact with a person so suffering, to milk cows or to handle vessels used in the trade. There are, I am informed, about a dozen people in Navenby who keep cows, make butter, and occasionally sell milk, but in consequence of not regularly sending milk round to customers are not considered to be dairymen or cowkeepers, and consequently are not registered. These people might fairly be reckoned to come under the Order. Nevertheless, at the present time there is great danger of the spread of fever in the locality, since milk has been sold and butter is made of milk from cows milked by those who have recently been in contact with persons suffering from fever. Such a case as this is another plea for the necessity of compulsory registration of infectious diseases, for where one instance of this comes to light, many, no doubt, escape the notice of the sanitary officers, and thus typhoid fever may be sold and introduced into houses with disastrous effects, and householders who have paid great attention to all the sanitary surroundings of their dwellings may be at a loss to account for outbreak of fever, never thinking it has been introduced by such indispensable articles of diet as milk and butter."

DEATH OF DR. ALPHONSE DEVERGIE.

FRANCE has just lost another of her medical celebrities in the person of M. Alphonse Devergie, the distinguished medical legist. Born in 1798, he received his diploma in 1823. Becoming an *agrégé* after a distinguished *concours* in 1825, he in the course of a few years was appointed to the St. Louis Hospital, where he acquired his great reputation as a dermatologist. He was elected into the Academy of Medicine in 1837, after a successful contest with Tardieu, and was President of that learned body in 1874. For many years he enjoyed a great reputation as a medical expert, in which capacity he was a brilliant rival first of Orfila and then of Tardieu. In sanitary science he also occupied the highest position, being one of the founders of the celebrated journal *Annales d'Hygiène et de Médecine Légale*, and an active member of the Conseil d'Hygiène. He reorganised the Morgue and continued its director until 1876, when he was succeeded by Professor Brouardel. One of his latest services consisted in the aid which he gave to the formation of the Société de Médecine Légale about ten years since, and which has since become so important an organ for the union of the professors of law and medicine in relation to all questions of medical jurisprudence. Among the large number of works which he published, his "*Traité de Médecine Légale*" and his "*Traité des Maladies de la Peau*" are the most remarkable.

THE PHYSICAL CAUSE OF INTERMITTENT FEVER.

THE July number of the *Zeitschrift*, edited by Professor Klebs, contains some particulars of an investigation into the physical cause or poison to which marsh or intermittent fever is due. The inquiry was conducted by Professor Klebs of Prague, in conjunction with Signor Tommasi, Professor of Pathological Anatomy at Rome. The two investigators spent several weeks during the spring season in the Agro Romano, which is notorious for the prevalence of this particular kind of fever. They examined minutely the lower strata of the atmosphere of the district in question, as well as its soil and stagnant waters, and in the two former they discovered a

microscopic fungus, consisting of numerous movable shining spores of a longish oval shape. This fungus was found to be artificially generated in various kinds of soil. The fluid matter obtained was filtrated and repeatedly washed, and the residuum left after filtration was introduced under the skin of healthy dogs. The animals experimented on all had the fever with the regular typical course. After explaining minutely the results of their various investigations and experiments, these gentlemen are of opinion that they have discovered the real cause of the disease in question. As the fungus grows into the shape of small rods, Tommasi and Klebs have given it the name of *Bacillus malarix*.

SANITARY AFFAIRS AT NEWCASTLE-ON-TYNE.

THE Medical Officer of Health for the large and important borough of Newcastle-on-Tyne, Mr. Henry E. Armstrong, in his annual report on the sanitary condition of the district for the year 1878, has renewed his protest on the present unsatisfactory condition of the fever hospital belonging to the town authorities. This building has been in use for seventy years, and is very dilapidated; the ventilation is so defective that during severe weather it is impossible to keep up a sufficient supply of fresh air without exposing the patients to very cold draughts. The capacity of each ward is such that to occupy all the beds is to deprive the patients of the requisite amount of air-space; the general construction of the hospital is so faulty that it is impossible to effectually isolate the different fevers from each other, and the administrative department is thoroughly defective. Impressed at last with the urgent remonstrances of their Medical Officer, the authorities have instructed the borough engineer to prepare plans for the construction of a new fever hospital in accordance with Mr. Armstrong's views. The building is to be designed in block-sections radiating from the administrative department; each block is to be complete in itself, and, when all the blocks are built (which may be done by degrees), will form part of an entire system of hospital accommodation for different epidemic diseases. Each block is to contain eighteen beds, of which six will be available for patients in good social circumstances. The birth-rate of the district for the year under notice shows a decrease of 0.6, and the death-rate an increase of 1.4 per 1000 of the population, as compared with the rates of the preceding year. The number of children dying before the completion of the first year of life was 888, as compared with 842, 971, and 1050 during the years 1877, 1876, and 1875 respectively. Mr. Armstrong's report on the health of the borough contains a variety of useful information, and affords proof of much labour expended in endeavouring to improve the sanitary condition of the locality.

LOCALISATION OF THE FUNCTIONS OF THE SPINAL CORD.

A NUMBER of most important results as to the localisation of the various "centres" in the spinal cord have been obtained quite recently by Dr. Ott, of Baltimore (*Journal of Physiology*, ii., No. 1, page 51). Thus, Dr. Ott has not only confirmed the previous observations of Goltz, Gowers, and others, respecting the rhythmical contractions that occur in the sphincter ani after injury to the lower part of the cord, or to the nerves passing thence to the muscle, but has discovered the occurrence of similar rhythmical contractions of the sphincter vaginae. A point which may prove of clinical value is the further observation of rhythmical adduction and extension of the voluntary muscles of the hind leg as a result of irritation of the interior of the rectum or vagina. The centres of the rectum, vagina, and bladder were discovered to lie in the lower part of the cord, but their activity was found to be controlled by higher centres within the cranium. Dr.

Ott further investigated the "perspiratory centres" in the nervous system—that is, those portions of the brain and spinal cord which appear to have an influence upon the secretion of sweat. Such centres seem to be situated throughout the medulla and cord; but it is possible to localise those which govern the perspiratory function in particular limbs. Two very interesting facts with respect to the causes of sweating, which are of the greatest possible interest from a clinical point of view, are confirmed by Dr. Ott; and these are—first, that heat causes a flow of sweat by stimulating the centres; and, secondly, that excess of carbonic acid in the blood (for example, in asphyxia) also stimulates the same function through the central nervous system. These results hold forth a promise of valuable therapeutical applications.

THE BELPER UNION RURAL SANITARY AUTHORITY.

FROM the summary to the annual reports for 1878 put forward by the Medical Officers of Health to the Belper Union Rural Sanitary Authority, it may be gathered that the health of the district is in a satisfactory condition. In that portion under the charge of Mr. E. Gaylor the number of deaths is stated to have slightly increased; but the very marked diminution of deaths in the zymotic class of diseases bears evidence that the sanitary work of the district is being done in an effectual manner. The death-rate for this (Wirksworth) portion of the district is given as 12.62 per 1000, and the birth-rate as 28.66 per 1000. In speaking of the Belper portion, Mr. J. Allen points out that six years ago, in his first annual report, he had to record the deaths of no less than sixteen persons from enteric fever; in his third report the number of deaths from that disease was reduced to eleven, in his fourth to four, and in his fifth to three; whilst in the one under notice there is but one, and in that case the symptoms were of such a negative character that the medical attendant certified it as one of a doubtful kind. Sanitary supervision, therefore, may be said to have done much in this instance in reducing the mortality from preventable causes. The death-rate in the Belper district for the year 1878 was 15.07, and the birth-rate 34.7 per 1000; the latter rate is considerably lower than in the preceding year, but this is accounted for by the depression in trade, which has sensibly reduced the marriage-rate. As the Medical Officers of this district have to furnish the vital statistics of the different parishes, townships, and hamlets separately, their reports, as may be imagined, are rather voluminous.

THE NAVAL MEDICAL COMPASSIONATE FUND.

AT the quarterly meeting of the directors of the Naval Medical Compassionate Fund, held on the 14th inst., T. Russel Pickthorn, Esq., Inspector-General, in the chair, the sum of £55 was distributed among the various claimants.

COLLEGIATE PRIZES.—Competing candidates are reminded that essays for the Collegial Triennial, and Jacksonian Prizes, offered by the Council of the Royal College of Surgeons, must be sent in on or before December 31 next.

THE Local Government Board, replying to a memorial forwarded by the Kingston Town Council, say that they see no reason for dissolving the Lower Thames Valley Main Sewerage Board, and refuse to allow Kingston to be severed therefrom and left to its own resources.

CAPTURE OF CABUL.—King's College men, as well as many friends at home, will be sorry to hear that the Surgeon Duncan reported as dangerously wounded is Andrew Duncan, F.R.C.S. Eng., the eldest son of Dr. Jas. Duncan, of Henrietta-street, Covent-garden. Lieutenant Charles Fergusson, of the 72nd Highlanders (the youngest son of the late Sir William Fergusson, Bart.), is also reported wounded—happily only slightly.

ROYAL SANITARY COMMISSION, DUBLIN.

SINCE our last notice of the proceedings of this Commission a great mass of evidence has been laid before the Commissioners. On Tuesday, October 7, Mr. H. C. Burdett, Secretary to the Seamen's Hospital, Greenwich, was one of the principal witnesses. In 1876 he had inspected Dublin as special commissioner of the *Sanitary Record*, and within the preceding week he had repeated his inspection. The scavenging had improved in the worst parts of the city in the interval, but the condition of the tenement-houses remained deplorably bad. He would strongly advise that Dublin should have a medical officer of health, whose time should be entirely devoted to his duties as such. He would also suggest the total demolition of tenement-houses, and the replacement of them by new buildings; and, in the third place, he would urge that the scavengers should be carefully inspected and overlooked.

On Wednesday, October 8, Mr. Frederick W. Pim, son of the late member of Parliament for the City of Dublin, and one of the honorary secretaries of the Dublin Sanitary Association, was examined, as was also Dr. J. W. Moore, Physician to the Meath Hospital and to Cork-street Fever Hospital. Dr. Moore said the climate of Dublin was equable, there being few extremes of heat or of cold. It was insular in the fullest sense, and so might be expected to react favourably on the public health. In 1873 he had made a sanitary inspection of Dublin as special commissioner of the *Freeman's Journal*. Since then the state of affairs had improved in some respects. The drainage of even private houses was very defective, and street scavenging was clumsily and inefficiently performed. The arrangements for the conveyance of the sick to hospital were quite inadequate. Disinfection of sick-rooms was too hurriedly carried out. Refuges should be provided for persons whose homes were being disinfected. One of the most pressing wants in Dublin was a convalescent home for infectious cases. Epidemic diseases fell more heavily on Dublin than on other places, and lasted longer. This he attributed to "dirt," and to the fact that the population had very feeble powers of resisting disease.

On Thursday, October 9, no evidence was taken, the day being spent in visiting and examining the sites of the suggested outfalls in the various schemes for the main drainage of the city and suburbs.

Among the witnesses examined on Friday, October 10, were Professor Hennessy, of the Royal College of Science, Dublin; Mr. James Dillon, C.E.; and Dr. C. F. Moore, medical officer of health of one of the south city districts. In the opinion of Professor Hennessy, the health of Dublin depended on three things—the supply of fresh air, the proper removal from the city of liquid matter, and the proper removal of solid matter. Mr. Dillon proved that the death-rate in the streets bordering the Liffey was less than that of the city at large. Dr. C. F. Moore handed in evidence as to a number of complaints made from time to time by poor persons concerning the insanitary state of their dwellings.

Monday, October 13, was quite a field day of medical witnesses. The first examined was Dr. James Little, Vice-President of the College of Physicians, who expressed the opinion that the great cause of the high mortality in Dublin was the extreme frequency with which ordinary attacks of catarrh, bronchitis, measles, etc., were allowed to become chronic complaints, owing to the complete want of appreciation on the part of the artisan class as to material comfort in food, clothing, and dwellings.

Dr. Head, President of the College of Physicians, said that the causes of the high death-rate were imperfect house-drainage, bad scavenging, drunkenness, poverty, and such a low moral condition of the people that they did not care for comfort.

The Rev. Professor Haughton, M.D., F.T.C.D., said he entirely concurred in the evidence given as to the influence on the death-rate of the existing tenement-houses, and the defective street- and house-scavenging. He alluded to and described unfavourable points in the geological situation of

Dublin. Another fertile cause of disease was the system of "waking" the dead. Excessive whisky-drinking was another. The keeping of animals in yards and the storing of manure were also found fault with. He considered the emanations from the Liffey a factor almost infinitesimally small in raising the death-rate of the city.

Dr. Thomas Nedley, Medical Officer to the Dublin Metropolitan Police, and Professor C. R. C. Tichborne, of the Carmichael College of Medicine, were also examined. On Tuesday, October 14, Dr. Grimshaw, the Registrar-General, gave further evidence as to the effective population of Dublin. In connexion with the inquiry, Dr. J. Emerson Reynolds, University Professor of Chemistry, Trinity College, Dublin, has addressed a letter to the Royal Commissioners, in which he draws special attention to one of the (to him) most evident causes of the malarious condition of Dublin—namely, the saturation of an unfortunately retentive soil by soakage from disused wells, which are to be found in large numbers throughout the city since the introduction of the Vartry water-supply. Professor Reynolds will probably be examined before the Commission.

PROFESSOR VERNEUIL ON THE TREATMENT OF DISEASED JOINTS.

PROFESSOR VERNEUIL lately read, before the Société de Chirurgie of Paris, an important paper on the immobilisation and the mobilisation of diseased joints, the following abstract of which will interest our readers. He began by declaring that "a fundamental principle of therapeutics demands, as an essential condition for recovery, *rest for the diseased organ*," and that "a principle in general physiology not less fundamental affirms that *the activity of an organ* is indispensable to its material and functional preservation," and went on to observe that "from these embarrassing and contradictory propositions it follows that the rest which cures a disease may ultimately annihilate the organ; that the activity which keeps an organ alive may prevent its healing when diseased; and that rest and activity are equally useful, *even necessary*, and yet as equally injurious and dangerous."

Brought to bear on the treatment of arthropathies, the above propositions tend to render our therapeutics and practice undecided and confused. And thus some urge that as the prolonged fixation of a joint may so alter its structure as to lead to ankylosis, therefore we must limit the fixation to the shortest possible time; others maintain that rest, rigorous and persistent, is the best cure for an arthritis, therefore prolong the period of rest to the utmost extent, and disallow any attempt at movement. Bonnet of Lyons, after having enclosed the diseased joints in immovable apparatus for a certain time, always took care, when the right moment seemed to have come, to commence passive movements, in order to restore suppleness to the joint.

This mixed practice seems, nowadays, to be almost universally adopted. Surgeons, no doubt, immobilise joints, because they have found out that it is necessary; but they are always pre-occupied by the supposed ill effects of prolonged fixation, and eagerly look out for the moment when they may recommence the movements *which are to prevent ankylosis*. Now, Professor Verneuil said, ankylosis, in fact, is a ghost, which frightens not only the lay public, the patients, and their friends, but also nearly all general practitioners, and not a few surgeons.

"In my practice and teaching for a long time past I have combated to the uttermost this idea of ankylosis and its prevention by passive movement. Perhaps my views may seem paradoxical; nevertheless I am led on to the discussion by facts. Thus, a child with joint disease was recently brought to me. I applied absolute fixation to the joint. All the pain ceased, swelling disappeared, and recovery was taking place. At the end of some weeks I was asked when it would be necessary to remove the bandages and commence movements. To this I replied that the time was not yet come. Nevertheless, in a short time, the general practitioner, probably urged on by the friends, removed all the

apparatus. As a consequence, the benefits then gained were lost, and the lesion progressed. The child was again brought; some excuses were made. I again ordered fixation, and the child is now in a fair way to recover."

The facts invoked against fixation are indeed very few, and only moderately conclusive; if the accusation is true, we ought to be surprised that the proofs are so uncommon. In order to discuss the subject with advantage, we must at least distinguish between healthy and diseased joints, and among the latter we must further establish varieties. First, then, as regards healthy joints, I affirm that there does not exist a single fact which shows conclusively that fixation, however long continued, has ever led to ankylosis. This long-continued fixation may, it is true, give rise to anatomical modifications such as diminution in the extent of the articular surfaces, to a thinning of their lining cartilage, also to a reduction in size of the synovial sacs, of a less abundant synovial secretion, and to functional changes, such as stiffness of the joints and limitation of movements. Hence, not unnaturally, when the necessity for immobilisation has ceased, a certain time will be required for the complete restitution of the articular function. But there is nothing in all this which at all resembles ankylosis. It is only comparable with what takes place in mucous glands which are no longer traversed either by ingesta or by excretions: they do not become obliterated, as was taught by Bichat, but simply reduced in size. Their healthy condition, however, is again established in a few weeks, or at most in a few months, when their function is once more revived. What better example could one have than the bladder in the case of a vesico-vaginal fistula? It becomes reduced to a mere pouch, but again resumes its normal capacity as soon as the fistula is closed. I am well aware that everywhere autopsies and experiments on animals are quoted; but neither one nor another have completely convinced me. I could show that the various lesions which are revealed are not in any way of the nature to lead to ankylosis, but can be attributed to other causes rather than to the fixation. On the other hand, I might mention the numberless examples of well-known cases in which the joint, for a long time kept immovably fixed, has, notwithstanding, retained its structure and rapidly resumed its functions when permitted to do so. These latter facts are at least as numerous as the opposite ones, and, being more simple, are also more convincing. It is clear either that fixation *alone* suffices to alter a joint, and then it ought always to do so; or there is need of a peculiar predisposition and a suitably prepared soil, in which latter case it behoves us to seek whether this predisposition does not play the principal rôle. The learned Professor inclines to this latter view. He admits that at the termination of any arthritis, in the treatment of which fixation more or less prolonged has been made use of, there is a diminution, a suspension, even an abolition of movement; but does not see why this functional suppression should be attributed to fixation rather than to other causes, especially the anatomical lesions present in the joint?

Those who fear ankylosis argue that certain plastic exudations are poured out between the apposed surfaces, which, at first soft, tend to organise and so glue these surfaces together. Fixation allows this process to proceed uncontrolled. But the synovial membrane is not alone altered; the ligaments are also infiltrated and softened. This no doubt cannot be ascribed to the mere fixation, but the fixation allows the process to go on, whereas movement would certainly prevent the subsequent stiffness and shortening which otherwise come on. The cartilage may even be destroyed, and then, if fixation is carried out, the plastic matter which is deposited ossifies, and true ankylosis is effected; whereas movements would at least tend to a more or less movable joint. And moreover, the tendons are apt to get glued together within their sheaths, which is further favoured by long-continued fixation.

After passing in review the varieties of arthropathy, and the difference in their tendencies, he shows that there are some which never lead to ankylosis; while in others fixation may be carried out or not, there will be some interference with movements in any case, but not an ankylosis. Impaired movement is in all cases due to the disease, and not to the fixation.

The pain of certain arthropathies gives rise to reflex muscular fixation. If moderate, this does not lead to any ill consequences; but if excessive or prolonged, if it go on to

contracture, it then becomes harmful, and by bearing unduly on circumscribed portions of the bone, or cartilages, or ligaments, it gives rise to secondary pathological changes of serious import.

In passive fixation, on the contrary, when mechanical means are used, all movements are prevented, the muscles are kept at rest, and a limb is held in its normal position.

After an examination of the various means by which immobilisation is effected, he arrives at the following conclusions:—

Prolonged fixation incontestably modifies healthy joints, but not profoundly either in form or in the structure of their constituent parts, or as regards their ultimate function.

There does not exist, in scientific records, any authenticated examples of ankylosis produced in a healthy joint by mere fixation. The cases hitherto advanced in support of such an idea are capable of another interpretation. On the other hand, there are on record numerous examples of joints which have been kept immovable for long periods, and have regained their anatomical and physiological integrity.

Inflammation no doubt occupies a first place among the causes; and, as it is absolutely proved that fixation is an antiphlogistic of the first rank, it is illogical to think that it produces those effects which it is known to cure.

If, in certain cases, fixation contributes to produce ankylosis, it is not that fixation which the surgeon secures by apparatus, but rather that which is due to the contracture of the peri-articular muscles. As much as the latter, which may be called *active*, favours, and indeed provokes articular disorders, by so much the former, which is *passive*, is powerful against them. There is therefore a capital distinction to make between the two varieties of fixation.

Ankylosis, on the other hand, far from being produced in articular disease, is but a rare termination to it; exceptional in strumous arthropathies, a little more frequent in rheumatic mono-synovitis, ankylosis is especially to be feared in suppurative and traumatic arthritis, though no one variety of disease is certain to produce it.

The exaggerated fear, therefore, of ankylosis has caused many practitioners to make grave errors, and has frequently led to the too early leaving off of passive fixation, and the too premature re-commencement of movement.

Mobilisation, consequent on joint-disease, is of two kinds—artificial or mechanical, and natural or physiological—brought about by muscles, either voluntary or otherwise. The former, which ankylophobes use exclusively, is admissible when we have to deal with the rectification of vicious attitudes of limbs, and to treat confirmed ankyloses; but it ought to be rejected as useless, powerless, and dangerous if we would avoid ankylosis. The latter, on the contrary, is of extreme utility if applied at an opportune moment: with time it accomplishes in a remarkable degree the restoration of the articular function.

He concludes by saying that artificial fixation on the one hand, and natural fixation on the other, are the two principal therapeutic agents in arthropathies: the one combats anatomical lesions, the other restores physiological action. We may assist the former by different means—local, pharmaceutical, or hygienic; we favour the second by electrification of the peri-articular muscles, practised during the period of fixation, with a view to the prevention of degenerescence.

To combat the inflammation is the best means to prevent ankylosis. As regards surgical measures proper, I know of none better than continued extension, and, in extreme cases, preventive resection.

OWENS COLLEGE SCHOOL OF MEDICINE, MANCHESTER.

—The following scholarships, exhibitions, and prizes have been awarded during the last session:—Turner (third year's) Scholarship, of the value of £25, Mr. R. Maguire; first prize, of the value of £5 5s., Mr. I. J. E. Renshaw. Second year's Scholarship, of the value of £15, Mr. Thomas Harris. First year's Scholarship, of the value of £10, Mr. J. Collier; first prize, of the value of £5 5s., Mr. W. J. Black; second prize, of the value of £4 4s., Mr. C. Challinor. Dumville Surgical Prize for 1879, Mr. Henry Payne. Platt Exhibition in Physiology, of the value of £20, offered for competition to second year's students in the Physiology Class, Mr. Thomas Harris; a similar Exhibition offered to first year's students has been divided equally between Messrs. J. Beard and J. Collier.

FROM ABROAD.

ITALIAN MARINE HOSPITALS.

IN a recent number (May 3, page 487) we gave an account of the favourable working of the Marine Hospital at Venice, and we now add some more information concerning other similar establishments derived from a note upon the subject addressed to the *Progrès Medical*, No. 30, by Dr. Manoury, who had been recently visiting two of them. Marine hospitals, he observes, are the great panacea of scrofula, and nowhere do they exist so abundantly as in Italy, where they are erected and managed without great cost. The magnificent edifice at Berck-sur-Mer, near Boulogne, where poor scrofulous children are sent from Paris, is the only establishment of the kind in France, and this is so placed that its existence is menaced by the inroads from the sea, although as much has been expended upon it as might have founded twenty marine hospitals. Every province in Italy, Dr. Manoury states, has its *ospizio marino*, which is managed by a committee located in the capital of the province. This committee is in communication with sub-committees established at various places in the province, and generally receives subscriptions from the different municipalities. The organisation of the committees, the arrangement of the hospitals, and the regimen of the patients, are much the same throughout Italy. The Marine Hospital of Lombardy is situated at Sestri-Levanto, a small town between Genoa and La Spezia, and was founded about fifteen years since by the central committee located at Milan. A large house close by the shore was purchased and prepared for the admission of patients at a cost of only 65,000 francs. It is only employed during June, July, and August, after when it is completely closed. It can accommodate 200 patients, but only 165 (100 girls and 65 boys), between the ages of five and fifteen, are usually sent. On June 1 they assemble at Milan, and are conveyed by a special train at reduced fares. After remaining forty-five days, they are taken back on July 15, being replaced by a similar batch, which remains until September 1. The hospital is under the management of a director, and two physicians visit it daily. Two male and three female nurses are selected from those of the Ospedale Maggiore of Milan. The following is the regimen to which the little patients are submitted:—Rise at six; at seven, breakfast with *café au lait* and school; from half-past eight to half-past nine, sea-bathing and the doctors' visits. After the bath the children eat some bread and play in the garden. At twelve, dinner, with seventy-five grammes of *pâté d'Italie*, 120 grammes of meat, and twenty-five centilitres of red wine; play in the garden, and school following. From three to half-past four, sea-bathing, followed by recreation and a piece of bread. At seven, supper, with eighty grammes of meat, vegetables, and twenty centilitres of pure wine. The price per child per day was two and a half francs, but for some time past it has been two and a quarter francs, this comprising everything—board and residence, medicines, and journey there and back.

Piedmont has had, since 1872, its marine hospital at Loano, a small town between Finale-Marina and Albenga, on the Corniche, which is worked from Turin. The municipality lent the committee a building for ten years gratuitously. Like the hospital at Sestri-Levanto, it is open for three months only, making up 200 beds, to fill which children are sent in two batches. The regimen is also similar, and the cost per day is two francs per child. The total expenses of the hospital amount to 20,000 francs per annum.

SELF-LIMITATION IN PHTHISIS.

The following is an abridged abstract of a highly interesting paper read by Dr. Austin Flint before the New York Academy of Medicine, and published in the *New York Medical Record* for July 19:—

It is more than forty years ago, he observes, that Jacob Bigelow applied the term "self-limited" to certain diseases, and gave of it the following definition:—"By a self-limited disease, I mean one which receives limits from its own nature and not from foreign influences, which, after obtaining a

foothold in the system, cannot, in the present state of our knowledge, be eradicated or abridged by art, but to which there is due a succession of processes to be completed after a certain time; which processes and time may vary with the constitution of the patient, and may tend to recovery or to death, but are not known to be shortened or greatly changed by medical treatment."

The object of Dr. Flint's paper is to inquire how far the favourable course and ending of phthisis are determined by self-limitation. So long ago as 1853 he had in the *American Journal of Medical Science* claimed that this disease might be self-limited, and gave an analysis of twenty-four cases which terminated in recovery. In another paper, in the *Transactions of the New York Academy of Medicine*, and subsequently in his work on the Practice of Medicine, and more recently in his work on Phthisis, he had continued to pursue the subject. Of all diseases, phthisis was the least to be expected to end favourably from intrinsic tendency; the cessation of its progress being considered as implying some extrinsic agency by means of which it had been arrested. What is required to establish the fact of a favourable course, and to prove of any other disease that its favourable course and termination were due to self-limitation? A disease belonged to that class when it ended in recovery independent of hygiene or therapeutics—in other words, when the favourable course and termination were due to intrinsic tendency, even though they were promoted by judicious treatment; on the other hand, a favourable intrinsic tendency might be obstructed by injudicious treatment. Self-limitation could not be inferred from a single case or a few cases, because the course and termination of disease might be affected by influences which were extrinsic, but not apparent. The number of cases observed, therefore, must be large; they must be carefully and honestly observed. There must be no room for doubt with regard to the accuracy of the diagnosis. The difficulties which prevent the requisite study and observation are obvious, and the cases in which these conditions can be fulfilled must be rare. But during a period of thirty-four years Dr. Flint has observed the histories of a number which he believes to be amply sufficient to establish the statement that "in certain cases pneumonic phthisis or pulmonary consumption ceased to be progressive, and might end in recovery by self-limitation." Of 670 cases of phthisis, the list embracing a few cases of acute tuberculosis and interstitial pneumonia or fibroid phthisis, 44 ended in recovery. In 31 cases the disease ceased to progress, remained non-progressive for several months, and in a majority of the cases for several years. In 31 cases the phthisical disease might be considered as having ended, complete recovery not taking place. Those 31 cases Dr. Flint regarded as hardly less valuable in this study than those which terminated by recovery. In 75 cases, therefore, there was either recovery from phthisis or the disease ceased to progress. In how many of these cases was it evident from the history that the cessation of the disease was not due to, and its progress not arrested by, medicinal or hygienic treatment?

In answer to this question, it is stated that of the 44 cases which ended in recovery there were 23 in which there was no medicinal treatment to which arrest of the disease could be attributed. In the remainder, the treatment consisted in the use of simple tonics, but in none could the treatment be considered curative. Of the 31 cases in which the disease was non-progressive without recovery, there were 15 in which there was no medication by which the disease was controlled, and in several none whatever. In the two groups of cases—namely, those ending in recovery, and those in which the disease was non-progressive—medicinal treatment was absent in about equal proportions. In the first group 23 of 44, and in the second 15 of 31. In a considerable proportion of the cases, change in climate and other hygienic measures were not of such a character that potential influence could be attributed to them.

Dr. Flint is unable to quote any authors who have declared in distinct terms that phthisis is a self-limited disease; but the curability of the disease is no novel doctrine. All observers of much experience agreed that patients had recovered from phthisis even after the formation of cavities; but in all these instances the disease had been supposed to be cured, sometimes by medicinal, sometimes by hygienic treatment, or by both combined. The position had not been taken up that the recovery was spontaneous in some of those instances. The object of Dr. Flint's paper is to show

(1) that he is warranted by facts in taking the position that self-limitation in cases of phthisis is established; and (2) the consideration of this fact in relation to the treatment of the disease. "If the disease ended in recovery exclusively from intrinsic tendency, it was evident that self-limitation must be more or less concerned in cases in which recovery took place under different measures of treatment—that it was a factor co-working with certain measures. When that factor was feeble or wanting, curative treatment would not, probably, be of much avail. Allowance must be made for that factor in estimating the value of curative treatment. The extent of its working must be different in different cases: sometimes considerable, sometimes moderate, and sometimes slight. Recovery, in order to become proof of the success of any method of treatment, must take place in a number of instances so large as to render it certain that the real agency could not have been self-limitation. It would be unjust to say that therapeutics were powerless, because, when combined with self-limitation, they would probably save many cases which would not otherwise recover."

Change of climate Dr. Flint regards as a most important measure in the early stages of the disease; but great discrepancy of opinion prevails as to the places best suited for the consumptive. The only truly scientific plan of investigation of the subject is to study results in a considerable number of cases. Of 74 of Dr. Flint's cases, in which change of climate was an important, and in some cases the chief, measure of treatment, 9 ended in recovery, and in 13 the disease became non-progressive; and 22 out of 74 cases must be regarded as a number sufficiently large to warrant the conclusion that more or less curative influence was due to climate. To these were added other cases in which the disease was slowly progressive; and in only 11 out of the 74 cases did it appear that there was no improvement following change of climate.

"Dr. Flint offered some remarks with regard to symptoms and signs by means of which judgment must be formed with reference to the influence of self-limitation in individual cases of phthisis. Was it possible to judge whether there was an intrinsic tendency to a favourable course and termination? The symptoms which warranted hope, sometimes even an expectation, of a favourable course and termination, related especially to the circulation, to body-heat, to alimentation and to nutrition. Persistent frequency of pulse, fever, anorexia, and progressive emaciation opposed reliance on self-limitation. In proportion as phthisis was well tolerated there was room for hoping that the disease would prove self-limited. If tolerance was limited, self-limitation was proportionately weak or wanting. There were abortive cases of phthisis as of other diseases, evidenced by lesions found at the apex of a lung post-mortem, without clinical history. Self-limitation might be exemplified, notwithstanding a large area of consolidation, followed by cavities of considerable size. Confinement of the disease within circumscribed limits—that is, an absence of signs indicating progressive extension and general diffusion—was the most reliable point for a favourable prognosis. Heredity was not incompatible with an intrinsic tendency to recovery; and reference was made to an illustrative case, in which both parents, three sisters, and three brothers died of phthisis. In conclusion, Dr. Flint observed that his histories afforded proof that profuse and repeatedly recurring hæmoptysis, chronic laryngitis, pleurisy, with effusion and pleural fistula, were not by any means in all cases unfavourable with regard to prognosis based upon self-limitation."

THE LATE DR. RADCLYFFE HALL.—The will of this gentleman, who formerly practised at Torquay, Devon, has just been proved, and the personal estate sworn under £90,000.

At the recent examination at the London School of Medicine for Women, the scholarship offered by the Birmingham Association for the Medical Education of Women, value £30 a year for three years, was awarded to Miss Emily Tomlinson, who entered Girton College, Cambridge, in 1875, as the Lady Goldsmid Scholar. The Entrance Scholarship, offered by the Executive Council of the School, value £30, was obtained by Miss Frances Harris, who took the first place in the Arts examination at Apothecaries' Hall in January of this year.

REVIEWS.

Archives of Dermatology: a Quarterly Journal of Skin and Venereal Diseases. Edited by L. DUNCAN BULKLEY, A.M., M.D. Vol. V., Nos. 2 and 3. Philadelphia: J. P. Lippincott and Co. 1879.

THIS publication still keeps well up to the mark. The April number for this year is very good. Dr. Harlingen's "Case of Ulcerative Scrofuloderm," which opens it, to which he has "been unable to find an exact parallel in the range of modern dermatological literature," is valuable because there was a careful autopsy, as well as a microscopical examination of sections of the affected skin. We think that the diseased condition was closely allied to that described by Alibert as *mycosis fungoides*; and in connexion with the case the history of another, described by Mr. Erasmus Wilson in his lectures delivered in 1874-75 (page 72), should be studied. Whether Mr. Wilson is right in calling his case one of "Hodgkin's disease," is another matter.

Dr. Seguin, in his paper on "Paraplegia in Syphilitic Subjects," scarcely encourages us by the statement that he does not think we can, at the present time, make a positive diagnosis of "syphilitic paraplegia." He is in no doubt, however, that all suspected cases should be treated energetically by mercury and iodide of potassium, the latter "given according to the American method—viz., fearlessly in doses gradually raised from 2 grams to 24, or even 32, grams a day." We may be allowed, perhaps, to doubt whether such enormous doses of iodide benefit the patient as much as they do the pocket of the druggist.

Systematic writers on medicine should read the editor's paper on the nomenclature and classification of diseases of the skin. Space will not allow much criticism of the system proposed. In Class II. we should be inclined to put a (?) after "acne molluscum (or molluscum sebaceum)," for the question of the nature of this affection is not yet settled, and we notice in the July number of the *Archives*, at page 313, that the reviewer of Professor Kaposi's book says, "Kaposi still regards molluscum as a sebaceous disease"—implying his own disbelief in this idea. In Class IV., "Livedo" is a horrible word, the only authority for which in W. Smith's large Latin Dictionary is Appianus Martius. Surely Hippocrates, Celsus, or Aretæus would furnish something more classical! Again, should not general diseases, like measles, small-pox, etc., be relegated to their proper place among infectious diseases, and severed from skin diseases altogether? To be consistent, typhus and typhoid fever, both of which are generally accompanied with rashes, should have been included in Class V. Lastly, why should herpes zoster go in Class III. with the Neuroses, and herpes progenitalis and febrilis be banished to the Vesicular section of Class V.; in one case the supposed cause, and in the other the external form of the eruption, being taken as the basis of classification? And why should lupus vulgaris, syphiloderma, and we might add keloid and lymphadenoma cutis, be considered worthy of a place among "benign new formations" in Class IX., when the question of benignity is but one of degree? Ask a patient whose nose has perished from lupus, or whose soft palate and epiglottis have yielded to syphilis, or whose body is covered with rupial sores, whether he would vote for benignity or not. His reply would certainly be in the negative.

No. 2 of this year's *Archives* also contains a case of hypertrichosis (homo hirsuties) illustrated, and a good paper on extra-genital chancres. The digest of literature is extremely complete.

In No. 3, the most interesting paper is by Dr. F. Foster, of New York, on a case of scleroderma, with diagrams showing the progress of the induration. The editor continues his Notes and Clinical Conversations on the Treatment of Skin Diseases. From them the practitioner will pick up many valuable hints. In addition to the excellent digest of literature there are some thoughtful and conscientious reviews, among others of several English works. In one dealing with Dr. P. Manson's "Notes on Tinea Imbricata," lately referred to in our columns, the reviewer says:—"The liberality of the English Government in affording such means of publication, and especially of illustration of disease, is commendable indeed, and indicates the wisdom of the administrative officers." Last, but not least, this number contains

a remarkably well written and accurate obituary notice of the late Dr. Tilbury Fox, from which we extract one or two passages to show in what light he and his teaching were regarded in America. "Dr. Fox," the writer remarks, "represented the highest type of a genial, earnest, honourable, and conscientious Englishman, filling his position in life nobly. He was cut down in the midst of usefulness, and while reaping the reward of his diligent performance of duty. . . . In regard to the influence exerted upon dermatology by Dr. Fox, it is perhaps a little too soon to express any opinion on the subject. Certain it is that he awakened much interest in this branch by his own enthusiasm and hard work. He did not advocate any new or peculiar views with special vehemence; he was eminently conservative. He did, however, introduce an element of eclecticism into English dermatology; . . . he introduced the study of pathological anatomy into his book from the Germans, and also much of the humoral views of the French; and although his constant reference to Willan might, at first thought, indicate a step backward, still this will be seen to be but a recognition of what was good in the past as well as the present, and marks him only as the man of enlarged views. We cannot but mourn the loss which dermatology has suffered, and hope that each one now pursuing this branch may be as earnest, diligent, and true as was Dr. William Tilbury Fox."

Transactions of the American Dermatological Association at the Second Meeting in August, 1878. New York: D. Appleton and Co. 1879.

"ASSOCIATION" is rather a grand name for a society of ten members, but, like the waiting-rooms of some of our metropolitan railway-stations, it is probably devised with a view to future prosperity. However, the "Associates" are a happy family, and seem to quarrel very little among themselves, though they sometimes disagree. Their present *Transactions* are chiefly interesting for a discussion on "the treatment of hirsuties" by electrolysis, in the course of which Dr. Piffard stated, as the result of his experience, that if the hairs thus destroyed were moderately large, "about 75 per cent. would never return." The operation, however, is certainly tedious and painful. Lovers of figures will find at page 52 statistics of 17,000 cases of skin diseases of all kinds reported from the different States of the Union by members of the Association, 13,828 of these being dispensary cases treated at Boston, New York, Philadelphia, Baltimore, St. Louis, and Chicago. It does not strike us, however, that the ratios of the numbers of the respective skin diseases tabulated to one another differ much from those observed in Europe.

Medical and other Notes collected on a Holiday Tour to Arcachon, Biarritz, Pau, and the Principal Watering Places in the Pyrenees. By Dr. ROTH. London: Baillière, Tindall, and Cox. 1879.

DR. ROTH is one of those men who keep their eyes open when travelling, and whose curiosity prompts them to ask questions wherever they go. He has thus collected a good deal of useful, and, on the whole, reliable information about the sulphurous hot springs of the Pyrenees, which, according to the French doctors, who preside over the bathing establishments, can cure every mortal ailment that flesh is heir to. It is a pity Dr. Roth's visit to these springs was so hasty, as his own observations of patients treated by them would be more valuable than the statements of men like Pidoux and Fousan, saturated with a belief in *herpétisme* and the herpetic diathesis—that mysterious fiction which the late Professor Bazin has left as a legacy to the medical profession of France. It is a pity Dr. Roth accepts the herpetic theory without a protest, for the familiar way he speaks about it is pretty nearly as good as expressed acceptance. Throughout his *brochure* the main fault we have to find with him is that he seems so ready to believe anything he is told, and that he is deficient in that spirit of polite criticism and delicate scepticism which takes the assurances of bath doctors *cum multis granis salis*, and discounts largely their wonderful tales. The following anecdote is an instance of Dr. Roth's credulity (page 25):—"A young Englishman, who was violently thrown out of a carriage, suffered horribly from pains in the whole body, especially of the left temple and left shoulder; and tolerably copious hæmorrhage through

the ear caused a suspicion of a fracture of the base of the skull. The patient was about ten minutes in the bath [at Eaux Chaudes], began to talk, and scarcely complained of any pain, and two hours later he continued in his carriage his journey to Pau as if nothing had happened."

The Teutonic character of Dr. Roth's English will be evident from this quotation, but on the whole his little work is readable, and may serve to direct attention to pleasant and picturesque watering-places, whose only drawback is the abominable odour of rotten eggs which pervades their bathing establishments.

Le Climat de Menton, son Influence sur le Traitement de la Phthisie Pulmonaire. Étude clinique par le Dr. JACQUES-FRANÇOIS FARINA, Médecin honoraire de la Ville et de l'Hôpital de Menton. Paris: J. B. Baillière et Fils. 1879.

The Climate of Mentone and its Influence on the Treatment of Pulmonary Phthisis. A Clinical Study by Dr. J. F. FARINA, Honorary Physician to the Town and Hospital of Mentone. Paris: J. B. Baillière et Fils. 1879.

THIS is a genuine scientific contribution to the study of the effects of climate on phthisis. A small part only of the essay is devoted to a sketch of the climate of Mentone, illustrated with meteorological tables of mean temperatures; the major portion gives us an account of what happened to 431 foreign patients who were under Dr. Farina's care at Mentone during the period from 1866 to 1878. Of these by far the majority (348) were chest cases of all kinds, and of this 348, 252 were phthisical. In treating of the phthisical cases Dr. Farina divides them into two categories—those which passed one winter only at Mentone, and those which passed several winters, and under each head he furnishes us with statistics of age, sex, improvement or the reverse, cure, and death. He also gives a table showing how often hæmoptysis occurred in the patients who only were one winter under his care. We cannot do more here, in the way of figures, than state the results in the case of the larger number of phthisical patients who only spent a single winter at Mentone, and we have ranged together for this purpose not only the cases which Dr. Farina styles "phthisies pulmonaires tuberculeuses," but also those under the headings "processus pneumoniques phthisiogenes" and "phthisies pulmonaires accidentelles." The numbers are—of 122 males, 75 improved, 10 cured, 14 *in statu quo*, 23 dead; of 96 females, 56 improved, 9 cured, 15 *in statu quo*, 16 dead. It should be noted that all the deaths in this enumeration occurred among the cases which Dr. Farina calls "phthisies pulmonaires tuberculeuses," and that of the whole 39, 7 took place in the first fortnight after the patients reached the coast, 19 after one or two months' stay at Mentone, and only 13 from this period to the end of the season. These facts should be a warning to the profession not to send out cases in a state of advanced disease and in a very weak state to Mentone or the Riviera generally. It is sheer cruelty to tear such invalids from their homes, and hopeless to expect any climatic benefit from the change. Dr. Farina's experience is opposed, like that of all sensible observers, to the idea of sending patients with acute, rapidly progressive phthisis to Mentone—and we are probably not wrong in adding to Cannes, Nice, or San Remo—at all. The exciting nature of the climate only aggravates the fever, and accelerates the downward progress of the case. The torpid, slowly moving forms of phthisis with a chronic tendency are those that do best on the Riviera, and such, there is no doubt, improve astonishingly with proper care.

Dr. Farina's statistics of cases of chronic bronchitis and laryngitis treated at Mentone are most encouraging, and he has found the climate valuable in chronic cerebro-spinal diseases, in gout, and chronic rheumatism, as well as in scrofula, lymphatic affections, and the various forms of anæmia and chlorosis. His results are given in a tabular form. In conclusion, we can recommend this little work to the favourable notice of our readers. Few men of Dr. Farina's age and numerous avocations would have taken the conscientious pains to write an essay like that before us. An Italian by birth, he has nevertheless, as official adviser to the French authorities since the annexation of Nice and Mentone to France, worked steadily as the promoter of good and useful hygienic measures in his adopted country. A man of independent means, yet of unwearying industry, he has chosen rather to help scientific medicine than to spend his later years in unfruitful *otium cum dignitate*.

PROVINCIAL CORRESPONDENCE.

MANCHESTER.

October 15.

OPENING OF THE SESSION AT THE OWENS COLLEGE—THE QUESTION AS TO THE ADMISSION OF FEMALE STUDENTS—REPORT OF THE DEAN OF THE MEDICAL SCHOOL—CHANGES IN THE TEACHING STAFF—ANNUAL DINNER—IMPROVEMENTS AT THE INFIRMARY—REGISTRATION OF STUDENTS.

THE winter session at the Owens College was opened on October 7 by Professor A. Milnes Marshall, M.A., D.Sc., who has recently been appointed to the new chair of Zoology. Professor Marshall chose for his subject "The Modern Study of Zoology." The lecture was open to the public, and, being introductory to all the departments of the College, was listened to by a numerous audience, including a considerable number of ladies. The Owens College authorities have not as yet seen their way to admitting ladies to the College classes; but whenever, as on this occasion, the lecture theatre is thrown open to the public at large, the fair aspirants to academic training freely avail themselves of their opportunity. This is one of the ways adopted by the ladies of what Mr. Jacob Bright calls "knocking at the College doors." Another gentle hint may be recognised in the establishment, on a site closely adjoining the Owens College, of a Manchester and Salford College for Women. At a public meeting, held on October 8, in support of this institution, it was stated by its president, the Bishop of Manchester, that the number of students last year was forty-six. Classes are already formed in French, German, English language and literature, Latin, Greek, and mathematics, and it is announced that if a sufficient number of students present themselves classes will also be held in logic under Professor Adamson, and in physiology under Professor Arthur Gamgee. The staff of lecturers is indeed composed, almost without an exception, of professors and lecturers at Owens College, and the annual examinations are conducted under the auspices of the Owens College Senate. In seconding the adoption of the annual report for 1878-79, Mr. Jacob Bright drew attention to the power given by the charter of the Victoria University, as drafted by its promoters, to give degrees to women, and asked how degrees were to be given to women if they were only to be granted to students of the Owens College, from which women were excluded. Were they going to tell Parliament that they would give degrees to women, and then make it impossible for women to fulfil the necessary conditions? He looked upon the present state of matters as a sort of intellectual monopoly, and appealed to the good sense of the authorities to deal with this question in the same spirit in which the House of Commons had eventually dealt with Roman Catholics and with Jews. He advocated continuous "knocking at the doors of the College" until public opinion should become aroused, when the doors would soon be opened to everybody's advantage. Professor Ward pointed out, in reply to Mr. Bright's remarks, that the Owens College could not be accused of apathy in the matter of the higher education of women, but that the power given to the authorities to admit female students was conditional. There must be sufficient money for this purpose at their disposal after adequate provision had been made for the instruction of male students, and, in the second place, due arrangements must be made for a proper separation of the students. Any arrangement involving mixed classes would have to be very carefully considered indeed (a remark with which the Bishop subsequently expressed his entire agreement). These conditions could not at present be fulfilled, and even if it were otherwise he did not consider that the present limited demand for the higher education of women justified them in regarding the question as one urgently calling for immediate settlement. It would, he thought, be better to wait a few years, and be content to watch the practical working of the College whose claims they had met together to advocate.

The Dean of the Medical School has issued his report, from which it appears that 210 students attended the School during the session 1878-79. The remarkable success of the Manchester students in the examinations of the University of London is alluded to with justifiable pride; while refer-

ence is also made to the large number of students rejected at the primary examinations in anatomy and physiology at the Royal College of Surgeons of England. This want of success is attributed to the absence at Manchester of compulsory test examinations, which it is the custom of all other English medical schools to impose. The system was tried here in former years, but was abandoned for various reasons, not the least weighty being the odium entailed upon the teachers. The refusal to allow a student to present himself for examination, on proving himself unable to pass the test, was not unfrequently looked upon as a personal grievance both by the student and his friends, and the scenes that sometimes ensued were extremely painful. The plan now adopted is to hold a voluntary examination of intending candidates, and to offer advice to them as to their fitness or unfitness to present themselves. "Had the students who presented themselves for examination during the last session loyally taken the advice of their teachers, which was freely and urgently given them, we should," says the Dean, "this year have been as successful in the examinations of the Royal College of Surgeons as we have been in the much more severe examinations of the London University." The report concludes with a graceful allusion to the retirement of the Assistant Lecturers in Anatomy and Physiology, Mr. A. H. Young, M.B., and Mr. John Priestley. The exceptional gifts of both these gentlemen as teachers and demonstrators, and their enthusiastic devotion to their work, will cause them to be much missed in the School both by the students and by the professors whom they assisted. Mr. Alexander Fraser, M.B., and Mr. H. S. Branfoot, M.B., will, during the coming session, act conjointly as Demonstrators in Anatomy; no successor to Mr. Priestley has yet been appointed.

The only other change that has been made in the teaching staff of the Medical School since last winter is in the departments of Medical Jurisprudence and Hygiene. For several years Dr. Arthur Ransome has combined these two subjects in one course; henceforth they are to be separated. Mr. C. J. Cullingworth has been appointed the Lecturer on Medical Jurisprudence, while Dr. Ransome will devote himself exclusively to the department of Hygiene and Public Health, in which he has long been recognised as an authority.

On Friday, October 10, the annual dinner of the past and present students of the School of Medicine was held at the Queen's Hotel, under the presidency of Dr. Henry Simpson. Ninety-two sat down to dinner. At the president's right sat Dr. W. H. Broadbent, an old Manchester student, who had come down from London on purpose to be present at the gathering. Responding to the toast of "The Past Students," Dr. Broadbent spoke in highly complimentary terms of several of the courses of lectures he had listened to in Manchester. He did not think it was possible to have had a better teacher of anatomy than the teacher of that day, Mr. Lund, and the lectures of the late Mr. William Smith on physiology, and of Dr. Henry Browne on medicine, he always remembered with pleasure and gratitude.

Great improvements are in progress at the Royal Infirmary. The system of drainage has been thoroughly overhauled, the wards have undergone considerable re-arrangement, and new baths and closets have been built with due regard to thorough ventilation. At the rear of the main building a new out-patients' department is being erected, which will not only insure a better waiting-room for the patients, and improved facilities to the medical officers in charge of them, but will leave a portion of the right wing to be appropriated for in-patients, for whom increased accommodation has long been urgently needed.

P.S.—The registration of students closed this evening. The total number of entries is 198, of which sixty-five are new. This shows a slight falling-off as compared with last year, when the number of new entries was seventy-two; for the two previous years, however, the numbers were forty-eight (in 1876) and fifty-seven (in 1877); so that, with the one exception of last year, this year's entry is the largest that Manchester has known.

MEDICAL SOCIETY OF LONDON.—The 107th session of the Society will be opened on Monday, October 20, 1879, at 8.30 p.m., when the President, Dr. John Cockle, will deliver a short opening address, and Dr. B. W. Richardson, F.R.S., will read a paper on the "Sphygmophone in Diagnosis."

REPORTS OF SOCIETIES.

THE CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 10.

Dr. GREENHOW, F.R.C.P., F.R.S., President, in the Chair.

AFTER a short address from the President, who specially noted that this was the thirteenth year of the existence of the Society,

Dr. DOUGLAS POWELL proceeded to read a report on a case of

LEPROSY WITH ENLARGEMENT OF THE GLANDS,

which he had exhibited at the Society last session, and upon which a committee of observation, consisting of Drs. Cayley, Dyce-Duckworth, and Liveing, with himself, was appointed. The case had been placed under Dr. Powell's care by Surgeon-Major Porter. When shown at the Society the man's clinical features presented were—considerable, somewhat mahogany-coloured, pigmentation of the skin, and especially of the legs, marked thickening of the lips and lobes of the ears, and a corrugated thickening of the skin over the brows and occiput, which gave the patient, aged twenty-four, the appearance of a man much older; and the "leonine" aspect characteristic of leprosy. The hair had almost entirely disappeared from the head, face, and surface of the body, and a papulo-squamous eruption covered the entire surface of the trunk. There was still marked enlargement of the glands, especially of the axilla and groins, although in this respect the patient had greatly altered for the better since his portrait was shown at the Pathological Society six months previously by Mr. Porter. The disease had first made its appearance when serving with his regiment in India in December, 1876, when he had "rupia," followed by a scaly skin affection, with loss of hair, for which he was treated with antisymphilitic remedies. The glands of the neck first, but soon also of the axilla and groins, became enormously enlarged, whilst the patient steadily emaciated and lost strength. This downward course continued, notwithstanding good diet with fruit and vegetables, iron, and cod-liver oil. For four months after he was admitted into Netley Hospital, until in May, 1878, Mr. Porter placed him on cod-liver oil containing one-tenth of a grain of phosphorus. His condition then began rapidly to amend. He gained weight and strength, whilst the glands steadily diminished in size. He was admitted into Middlesex Hospital under Dr. Powell's care in January, 1879. Careful observations were made by the committee as to surface-sensibility, but no anæsthesia made out. The nerves at the bend of the elbows were slightly thickened, and small characteristic ulcers were present at the right wrist and left great toe. The urine was natural; the temperature normal. He was placed on gurgun oil, and for six months appeared to be doing well. The blood examined was found to be rich in red corpuscles, and to contain no filariæ nor excess of white discs. At the end of the first week in March, however, the patient had severe rigors; the temperature went up, and an erythematous patch appeared at the left elbow, which rapidly extended day by day, so as to attack in turn the whole surface of the body and extremities. This spreading erythema was complicated by broncho-pneumonia, and attended with typhoid symptoms; and finally albuminuria set in, and the patient died on March 30. At the post-mortem examination, fibroid induration of glands, broncho-pneumonia, with some cicatrices and indurated patches in the lungs, marked fatty degeneration of the liver, and recent nephritis, were found. No disease was apparent in the ulnar nerve or its ramifications, as examined by the unaided eye, and the internal glands were not notably affected. On minute examination, however, some early changes were observed in the nerve; also fibroid thickening of the skin, with small-celled growths or deposits, and fibroid degeneration of the glands. The committee, in their remarks, observed that the case, in its clinical features, was one of elephantiasis Græcorum, remarkable chiefly in two respects—viz., in the great enlargement of superficial glands (a certain degree of such enlargement being not uncommon), and in the amendment of the condition, apparently, under the influence of phosphorus. Secondly, in the termination of the case by such an extensive erythematous inflammation of the

skin, patches of this disease being, however, not uncommon as a complication of leprosy. The microscopical evidences were such as were compatible with leprosy in a comparatively early stage—viz., some two years' duration.

Dr. T. C. Fox said the glands were often enlarged in tubercular leprosy. But were there in this case any degenerated cells, such as had been described by Hensen, and looked upon as diagnostic, to be found?

In reply, Dr. POWELL said that none of these were found, but the stage of the disease was quite early.

MYXŒDEMA, OR UNIVERSAL DEGENERATION OF THE CONNECTIVE TISSUE OF THE BODY.

Dr. DYCE DUCKWORTH related this case. S. M., aged thirty-four, married for ten years, mother of three children, came to St. Bartholomew's Hospital in November, 1878, complaining of weakness and of failing health for two years previously. She first observed that her eyelids and face swelled; subsequently swelling was noticed generally about the body. Her voice had become altered and thick. A sister who accompanied the patient stated that her manner had become altered and her temper more sullen and irritable since her ailment began. Indeed, some of her friends believed, in consequence, that she had become intemperate in her habits. She was a well-grown woman, of large build, but had lost two stones in weight during the previous eighteen months. Her face was of peculiar aspect, and she wore a listless expression. The complexion was waxy, with some clear redness over the malar bones, and there were several moles about the chin and cheeks. The eyelids were puffy and oedematous, having the aspect so common in chronic forms of tubal nephritis. The hands were clumsy-looking and seemingly swollen about the backs, but no dints could be made in them; it was alleged that they felt numb and sleepy at times. There was no appreciable change in common sensibility, and pins could be readily picked up. On examination some general condition of xeroderma was found on the limbs more especially, but no ordinary œdema. The first impression in this case was that there was some form of chronic nephritis present which would explain both the physiognomical aspect and the obvious swellings. The urine was found to be quite void of albumen, of specific gravity 1010, acid in reaction. The heart was natural. The tongue was clean, and protruded naturally. The uvula was observed to be swollen and oedematous-looking. Appetite good; bowels usually constipated. The case was now regarded as one of that peculiar form of disorder described so well, and termed by Dr. Ord as "myxœdema," and other like instances of the disease were recalled to memory which had not been satisfactorily diagnosticated. The family history afforded no clue to the nature of the case. The children were healthy with the exception of the youngest, which was very rickety. (The patient was present at the meeting, and a water-colour drawing of the face was shown.) The treatment consisted mainly of steel and cod-liver oil. On subsequent examinations the disorder was found to be making progress. The thyroid gland could not be felt, and a fatty cushion was found in the left supra-clavicular fossa. The face became more waxy and puffy, and the voice more slow and snuffing. The urine never was albuminous. The patient's manner was more sullen and reserved, and she was shy and resentful of clinical examination. Dr. Ord saw this case six months ago, and confirmed the opinion formed respecting it. It added one more to a series which have been, and still are, receiving careful study, and about which no doubt as to their true nature can now be entertained. Occurring only, so far as known at present, in the persons of women about middle life, the varying symptoms appear to be due to a gradually spreading mucoid degeneration of the intercellular tissue throughout the body, which thus shuts off full and prompt appreciation of peripheral and other nervous impressions. Dr. Duckworth promised to report further observations upon this case at a future time.

MYXŒDEMA.

Dr. ORD then read some further observations on this disease. The paper gave the history and morbid anatomy of a second (fatal) case of this disease, first described by Sir William Gull as "a cretinoid condition supervening in women in adult life," and subsequently named by Dr. Ord "myxœdema." The patient was a woman, aged fifty-two, married, the mother of five children. Her illness dated from her last confinement, twelve years before. She had begun

then to swell in the face and all over the body. As she gradually increased in size she had become lethargic, had difficulty in collecting her thoughts, had difficulty in walking and in holding up her head. When she came under observation, fourteen days before death, she presented in a very marked degree the appearances described by Sir William Gull and Dr. Ord in previous papers. The whole body was swollen, giving her the aspect of a person suffering from renal disease. The skin was translucent, dry, and very rough on all parts except the face. The eyelids were bulged, the lips, upper and lower, greatly swollen, and the alæ nasi much thickened. Each cheek presented a sharply-limited pink flush; the hands were spade-like, expressionless, and, with other extremities, were blue, by reason of feebleness of circulation. She spoke slowly and painfully, with leathery nasal intonation. Her movements were slow, and she halted quivering in her gait, but had no true paralysis, ataxy, or tremblings. The droop forward of the head, noticed in a previous extreme case, was remarkable, the pressure of the chin upon the neck actually interfering with deglutition. Her senses were essentially unimpaired, but her response was long in coming, her memory defective, and her thoughts slow. The urine was of average quantity, of rather less than average specific gravity, and contained a trace of albumen. The arteries were firm, and the heart enlarged but weak. The thyroid body was small. Having received bad news immediately after her admission to St. Thomas's Hospital, she fell into a lethargy which deepened daily, with intervals of feeble delirium, till she died, on the fourteenth day. While under observation her temperature was very low; for twelve days the average was between 90° and 92°, on the thirteenth 88°, on the last day 77°. At the post-mortem examination all tegumentary and surface parts of the body were found swollen; the thyroid body was reduced in size and form; the kidneys were very firm, not reduced in size, smooth on the surface, and not adherent to their capsules, the cortical portion being somewhat narrower on section than normal; the liver and spleen were too firm; the heart was dilated and hypertrophied, weight twelve ounces and a half. The microscope showed in all parts a great increase of connective tissue. The fibrillar element was more abundant and more defined than normal; the interstitial mucus-yielding element was greatly increased in proportion and quantity; nuclei were larger and more numerous. This was best seen in the skin, the glandular organs, and in the coats of arteries. The connective tissue presented a strong resemblance to that of the umbilical cord, and suggested the idea of a retrograde degeneration. The encroachment of it on tissues and organs was apparently the cause of death. Five other cases, all in women between thirty and fifty, all married, were compared. All had low temperature; all had nervous weakness and lessened sensations; two, very advanced, had delusions. Those two had traces of albuminuria; the rest, less advanced, gave no indications of renal affection. The symptoms and appearances being altogether of the same character as those observed in previous cases, Dr. Ord maintained that they showed the disease under consideration to be a substantive disease, and that they justified the use of the term "myxœdema," as marking the cause of the symptoms and of the fatal termination.

Dr. SANDERS, of Edinburgh, remarked that he had seen three or four of those cases in Scotland. They were well defined clinically, but he had no complete history to give, inasmuch as the patients had all disappeared before the slowly progressing disease had ended. In his opinion the symptoms and pathology quite corresponded, and the prognosis, as a rule, was bad. One patient only had he seen to improve, but that was for a time, and the ultimate result he did not know.

Dr. GOODHART suggested that the overgrowth of connective tissue which was supposed to compress the nerves might also, in cretinism, in the same way affect the brain. But between sporadic cretinism and this malady there seemed to be this essential difference—that the former was congenital; the latter occurred in middle life only. Would it not in the latter case be so that the brain, having already received many impressions, would retain much of its mental food? He was rather inclined to suspect a kind of general mischief similar to *sclerose en plaque*.

Dr. DUCKWORTH said that of course in his case there could be no pathological details, seeing the patient was yet alive. She was not easily managed, and had only been seen at intervals.

Dr. ORD said that in one of his cases he could give the history of the children. One seemed of unusual ability as a painter; others seemed muscular in a high degree; in none had any signs of the disease been seen, but then all were under the ordinary age for such symptoms to manifest themselves. True the prognosis was bad, but in no case did it seem to prove fatal under six, or usually ten or twelve years. No treatment seemed to do good. Neither in the brain nor spinal cord was there anything which could strictly be called sclerosis, though the connective tissue round about the blood-vessels was increased. He still held that padding round the nerve-fibres, and the consequent interruption of communication with the periphery, was a prime factor in the disease.

Dr. F. TAYLOR then read for himself and Mr. H. G. Howse a paper on

A CASE OF EMPYEMA IN WHICH PORTIONS OF THE RIBS WERE EXCISED.

The patient was a child, aged six, who was admitted into the Evelina Hospital in January, 1877, with a history of acute pleurisy eleven weeks previously. The left chest was shrunken, and dull on percussion posteriorly, with deficient breath-sounds, and some crepitation at the base in front. The temperature was at first nearly normal, but after a time it fluctuated considerably, often rising in the evening to 130° Fahr. As this continued, and the physical signs were confined to the base of the left chest, this was explored on April 16, and pus was found. The chest was then incised, and about ten ounces of pus were discharged. Tubes were inserted, and the chest washed out daily. On May 20 a counter-opening had to be made, but by the end of June very little real progress had been made, as the sinuses rapidly closed, and thus the pus secreted was retained. On July 2, Mr. Howse made a T-shaped incision through the skin round the existing aperture, and after separating the periosteum, removed with the bone-forceps portions of the seventh, eighth, and ninth ribs. Each portion was about an inch and a half long. The thickened pleura was then cut through from the sinus, and two drainage-tubes were inserted. The immediate improvement was decided, but the wound rapidly filled up, and in a short time the sinus was reduced to a channel no bigger than it was previous to the operation. From this time nothing further was done by operation. The pus continued to be secreted, and its retention was quickly followed by hectic symptoms. Albuminuria was discovered in September, 1877, two months after the operation; anasarca developed later, and there was frequent diarrhoea, so that she sank from the internal complications in October, 1878. At the post-mortem examination the empyema was found to occupy chiefly the posterior part of the chest, reaching from base to apex. The lung was airless except at the apex. There was no tubercle. The sixth, seventh, and eighth ribs were united by bony bridges. The liver, kidneys, and intestines were lardaceous, and there was recent acute peritonitis. The operation performed in this case permitted more falling in of the chest than would have otherwise taken place, but did not facilitate the drainage so much as was desired. This was due to the rapid development of granulations and bone, which took place after the operation, the opening being quickly reduced to a narrow sinus. In another case it would probably be advisable to remove the periosteal tissue much more freely, even if it necessitated also the removal of the thickened pleura. The large opening thus obtained would also allow more complete exploration of the smaller cavities, apparently distinct from the main cavity, such as were found in this case at the time of the operation.

Dr. POWELL said he had now a patient under his care where something of the kind must be done. Would not gouging away a portion of the rib, and so allowing of a kind of bed for the canula, be equally satisfactory?

Dr. F. TAYLOR said their object was to prevent closure of the opening, and if possible to aid in the falling in of the ribs. Gouging he thought might fail, as this plan had done. They did not repeat the operation on account of the bad constitutional state.

Mr. Howse thought gouging had little chance in such cases. The operation itself was easy enough.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Messrs. G. W. Hill and V. H. Veley, B.A., have gained the Open Scholarships in Natural Science.

OBITUARY.

JOHN GIBSON FLEMING, M.D., F.F.P.S. GL., F.R.S.E.

THE late Dr. Gibson Fleming was descended from an old Glasgow family frequently mentioned in the annals of the city. Born in 1809, he was educated at Glasgow University, where he graduated in medicine in 1830. He then proceeded to Paris, where he spent a session in hard study, devoted mainly to anatomy and surgery. He then made a tour in Italy, and afterwards settled in his native city, where he was appointed one of the District Surgeons, and in this service he nearly succumbed to an attack of typhus fever. His appointment as one of the Surgeons of the Royal Infirmary gave him a wider sphere of usefulness. In his subsequent capacity of manager of that institution he did yeoman service to the charity, sparing neither time nor trouble in his devotion to its interest. In 1870 he addressed to his brother managers a letter (which was also published in pamphlet form) advocating the abolition of the year of ineligibility after eight years of service, under which the Hospital had lost the services of some of its best physicians and surgeons, and making a powerful appeal for "free trade" in clinical lecturing, in opposition to the method of lecturing by rotation which then prevailed. His appeal to the managers was felt to be irresistible; and both these changes he so earnestly advocated were carried out. In 1874, when the University moved westwards, it was on Dr. Fleming's suggestion that the managers took powers in a supplementary charter to affiliate a medical school to the Hospital; and up to the period of his death he superintended with unwearied devotion this department of the institution. To the Royal Infirmary the death of Dr. Fleming is a loss altogether irreparable. In the business of the Faculty of Physicians and Surgeons, to the Fellowship of which he was admitted in 1833, he long took a prominent part. He was elected to the office of President in 1865, and this honour was repeatedly renewed; and for a period of fifteen years he represented the Faculty in the General Medical Council.

Dr. Fleming had a large practice in Glasgow, a considerable part of it latterly being consultative. He was chief medical adviser of the Scottish Amicable Life Assurance Society, the head office of which is in Glasgow. In 1862 he published a very able and accurate analysis of the experience of this Society for a period of thirty-five years, in a small work entitled "Medical Statistics of Life Assurance."

Under a somewhat brusque and Abernethian manner Dr. Fleming veiled the most generous sympathies and a singularly tender heart. No one was more sympathetic with the struggles of young practitioners, and many were the occasions on which he threw work in their way. Of everything which affected the honour of Glasgow he was keenly sensitive. Altogether his death leaves a gap in the profession in Glasgow, as well as in many aching hearts, which it will take long to close up.

Several weeks ago Dr. Fleming was seized with the premonitory symptoms of an illness which developed into typhoid fever. The rarity of a man of seventy years of age being the subject of this disease caused the first reports of the seizure to be doubted. But the diagnosis was sure enough from the moment it was made, and the illness rapidly assumed a hopeless character. He died on the morning of October 2. He leaves three sons, one of whom is Mr. William James Fleming, Lecturer on Physiology in the Royal Infirmary School.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Mr. R. M. Williams has obtained the Entrance Science Scholarship of £60, and Mr. B. Relton that of £40.

LESSENED CURABILITY OF INSANITY.—In a paper read before the Philadelphia College of Physicians, Dr. Rae arrives at the conclusions:—1. Under the influence of highly civilised life the conservative powers of the constitution have been somewhat depressed, and to that extent have impaired the curability of insanity. 2. During the last fifty years cerebral affections, in which insanity is only an incident, have been steadily increasing, and thus diminishing the proportion of recoveries.—*New York Med. Jour.*, September.

NEW INVENTIONS AND IMPROVEMENTS.

WINE FROM THE TOURAINE.

Exported by Messrs. N. Elphinstone and Company,
La Chanterie, Tours.

ANYONE who looks at a map of France cannot fail to notice the two similar enormous river-basins which drain the south-west and west of France—the one, the Gironde, pouring its waters into the sea by the way of Bordeaux; the other, the Loire, which, after draining an enormous extent of the centre of France, comes to the ocean by way of Nantes and Saint-Nazaire. Both districts are celebrated for their wines, although it is hardly necessary to say that the Gironde has by far the supremacy, and that hardly a name on the map fails to recall the name of some familiar growth of wine. With the wines that come from the banks of the Loire most of us are not equally familiar, although of late they seem to be making their way in the estimation of the English public. Anyhow, large wine-growers are to be found who, from time to time, challenge the opinion of the medical profession in England by submitting specimens of their growths and appealing to the critical functionaries of the *Medical Times and Gazette*. It was through our columns that many of our readers first heard of the Vouvray, when imported by Mr. Browning; and of the sparkling Saumur, from the vineyards of M. Ackermann-Laurance, which has since obtained enormous popularity through the exertions of Messrs. Gilbey; and of the Vin Brut, or unsweetened wine, imported by the same firm, of which we recently gave a critical description; and again, of the Champigny, which was lately submitted to our notice by Messrs. Mears.

When we commend these wines we do but follow the authority of the acutest and most skilled connoisseurs and viticulturists amongst the French. M. le Dr. Jules Guyot who was employed by the government of the late Emperor Napoleon to visit and report upon the wine culture of every department in France, thus speaks of the Saumur:—"It is the same grape that gives the good wines of Champigny and its environs in Maine-et-Loire, and those of Bourgueil in Indre-et-Loire, and these wines in good years are admirable, and unite all the qualities desirable in alimentary wine: "savour ferme et agréable, bouquet suffisant, couleur parfaite, générosité, action digestive et tonique prolongée." Of the best sparkling wines of Saumur he says that they are "delicious wines, of fruity odour, fresh, clean, without local taste, full of vigour and agréments, equal to the third or even the second classes of good champagne." We feel great satisfaction in quoting from the work of M. Jules Guyot, because we feel sure that no Frenchman would speak well of bad wine; and having this faith in the equity and clearness of French wine connoisseurs, we noted with considerable curiosity one or two passages in a novel by M. Theuriet ("Le Fils Maugars," *Revue des Deux Mondes*, 15 Mai, 1879), where he speaks of the exhilarating effects of the old raspberry-flavoured wine of Chinon, "la sève framboisée du vin de Chinon." Shortly afterwards, by a fortunate coincidence, we received from Messrs. N. Elphinstone and Co., of La Chanterie, Tours, a list of wines which they export from that district, and a set of samples to enable us to judge of them ourselves.

Messrs. Elphinstone, who appear to be an English firm with Anglo-Indian antecedents, are established in the city of Tours, the ancient capital of the province of the Touraine now called the department of Indre-et-Loire, and the capital of a province celebrated in all times for the mildness of its climate, the beauty of its women, and the excellence of its wine. They have become proprietors of several of the most noted vineyards, at Chinon, Bourgueil, and Joué (or at least have secured their produce). Their list comprises two categories, red table wines or clarets, and sparkling wines, both remarkably cheap. Amongst the red wines, we notice particularly the Chinon, concerning which we quoted André Theuriet, and the wines of Bourgueil, for whose character we venture again to quote M. Guyot:—

"The wines of Bourgueil and its neighbourhood," he says, "have less *finesse* and less bouquet than the wines of Médoc. They are less *moelleux*, but they have all the hygienic qualities, and in my judgment they are more tonic and more stimulating, having more *vinosité* and astringency; their bouquet and their taste of raspberry render them in other

respects very agreeable; they are excellent ordinary wines, worthy of being sought after, and fetching a good price." In our opinion, judging from the samples of St. Nicholas de Bourgueil, 1874, with which Messrs. Elphinstone have favoured us, we should describe it as wine of remarkable lightness and delicacy, free from marked acidity or astringency, soft, and apparently very pure, the reverse of anything heady or coarse. We learn that the medical faculty of Tours permit their gouty patients to drink no other wine.

Among the sparkling wines we particularly notice a "*vin brut*." This, although not quite so dry as we should have thought, is a capital specimen of a robust sparkling white wine, full of vinosity, and very clean to the palate. The *Crème de Jouvè* may be had either dry or sweet; it is a wine of great finish and delicacy. We learn that it is made from the famous *pineau noir* or black grape of Burgundy. In fact, as we have said on former occasions, the best sparkling wines are made of a black grape, but the juice and the resulting wine are white if the juice is separated from the skins before fermentation. The greatest favourite of any of these wines is likely to be the *Chouzy Muscatel Crémant*—a wine with a most delicate muscatel flavour, produced by mixture with the grape *Muscat précoce de Saumur*, known in English vineries as the "Early Saumur Frontignan." We must add one word as to the raspberry flavour of red wines. Many of the best wines of Bourgueil have this flavour; but it must be remembered that many indifferent wines all over the world, if deficient in flavour and body, are doctored with a dose of raspberry-brandy. We must also add that these wines come to maturity early and fall off after their fifth year, and that it is better to use them in generous hospitality than to let them acetify in the cellar.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, October 6, 7, 8, and 9, the following were the successful candidates:—

For the Licence to practise Medicine—

Bennett, Deane.	Jones, Hugh Parry.
Bredin, John Noble.	Lawless, George Robert.
Davidson, Charles.	McDonnell, Joseph.
Easmon, John Farrell.	O'Grady, Michael De Courcy.
Staff, George Thomas Albert.	

For the Licence to practise Midwifery—

Davidson, Charles.	Jones, Hugh Parry.
Easmon, John Farrell.	McDonnell, Joseph.
Fialho, J. H.	O'Grady, Michael De Courcy.
Staff, George Thomas Albert.	

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 9:—

Hearnden, William Frank, Sutton, Surrey.
Jackson, Mark, Great Torrington, Devon.
Laves, Joseph W. Y. H., 56, St. George's-road, S.W.
Moore, Thomas George James, Reading.
Oglesby, Joseph William, Micklegate, York.

The following gentleman also on the same day passed his Primary Professional Examination:—

Hurtley, William Maw, Leeds Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

BUCK, W. EDGAR, M.A., M.D. Cantab., M.R.C.P. Lond.—Physician to the Leicester Infirmary, *vice* J. W. Crane, M.D., resigned.

SIMON, ROBERT M., B.A., M.B. Cantab., M.R.C.P. Lond.—Assistant-Physician to the Birmingham General Hospital.

BIRTHS.

BREWER.—On October 12, at 201, Queen's-road, Dalston, the wife of A. H. Brewer, L.R.C.P., of a son.

GODSON.—On October 18, at 8, Upper Brook-street, Grosvenor-square, W., the wife of Clement Godson, M.D., M.R.C.P., of a son.

LOTT.—On October 12, at 9, High-street, Bromley, Kent, the wife of Herbert James Lott, M.D., of a son.

MACKINTOSH.—On October 6, at 260, Clapham-road, S.W., the wife of Henry Mackintosh, L.R.C.S. Edin., of a daughter.

NICHOLSON.—On October 13, at 89, Camden-road, London, N.W., the wife of Emilius Rowley Nicholson, M.D., of a daughter.

WOOD.—On October 14, at Bethlem Royal Hospital, the wife of W. E. Ramsden Wood, M.A., M.B., of a son.

MARRIAGES.

BEEBY—FINLEY.—On October 8, at Bishop's Froome, Herefordshire, Walter Thomas Beeby, M.D., of Bromley, Kent, to Constance Emily, second daughter of the late Rev. John Finley, Vicar of Aveley.

COCKELL—HEWETT.—On October 9, at Newington, Fredk. Edgar Cockell, jun., M.R.C.S., of Dalston, to Kate, youngest daughter of the late Wm. Hewett, of Stoke Newington.

FOSTER—TARRANT.—On October 11, at Brixton-hill, Paterson Foster, eldest son of John Frederick Foster, M.D., F.R.C.S., to Annie Catherine, youngest daughter of the late Thomas Tarrant, Esq., of Moorgate-street.

GILNES—DURRANT.—On October 14, at Ipswich, the Rev. Edwin Gilnes, M.A., to Julia Gertrude, second daughter of Christopher Mercer Durrant, M.D., F.R.C.P.

GROSS—YATES.—On October 14, at St. John's, Higher Broughton, Manchester, Charles Gross, L.R.C.P., Medical Supt. St. Saviour's Infirmary, Walworth, London, S.E., to Constance, youngest daughter of the late William Yates, of Manchester and Hadley Hall, Salop.

GURDON—RANDALL.—On October 14, at St. Marylebone Church, Edwin J. Gurdon, M.R.C.S., of Hopton, Thetford, Norfolk, to Ellen Anne, second daughter of John Randall, M.D., of 35, Nottingham-place, London.

LEWIS—BROWN.—On October 8, at Lewisham, T. R. Lewis, M.B., A.M.D., to Emily Frances, only daughter of James Brown, of Braintree, Essex.

MERYON—CHALMERS.—On October 7, at Linlithgow, Lieut. John Edward Meryon, R.N., son of E. Meryon, Esq., M.D., of London, to Isabella Charlotte, eldest daughter of Thomas Chalmers, Esq., of Longcroft.

DEATHS.

BLACK, PATRICK, M.D. Oxon., late Senior Physician to St. Bartholomew's Hospital, at 11, Queen Anne-street, W., on October 12, aged 63.

CAMPBELL, ALEXANDER BOWERBANK, M.D., on September 12, at Stoney Hill, Jamaica.

CROSBY, LEONARD, F.R.C.S. Edin., M.R.C.S., at Rockleigh House, Clifton, on October 13, aged 51.

DOWSON, EDWARD, M.D., of 117, Park-street, Grosvenor-square, at West Humble, near Dorking, on October 8, aged 47.

DUNNAGE, ARTHUR RICHARD, M.R.C.S., at Allbury House, Surbiton, on October 15, aged 32.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

EAST SUFFOLK HOSPITAL, IPSWICH.—Honorary Physician. Candidates must be graduates in medicine of one of the Universities of the United Kingdom, or Members of the Royal College of Physicians of London, and registered according to the provisions of the Medical Act. Election on October 29 at one o'clock. Applications, with testimonials, to Mr. H. D. Harrison, Secretary, on or before October 22 by ten o'clock a.m.

HOSPITAL FOR WOMEN, SOHO-SQUARE, W.—Assistant-Physician. Candidates must be graduates in medicine of some recognised University, and Members of the Royal College of Physicians, London, or must become so within twelve months of their appointment. Applications to Mr. David Cannon, Secretary, on or before November 12.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD, E.C.—House-Physician. The office is tenable for one year, and an allowance of £80 is made in lieu of board. All other information may be had on application to Mr. C. Lowther Kemp, Secretary.

WEST BROMWICH DISTRICT HOSPITAL.—House-Surgeon. Candidates must be surgically qualified, registered, and unmarried. Applications, with testimonials, to Mr. William Bache, Honorary Secretary, Churchill House, West Bromwich, on or before Tuesday, the 21st inst.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Martley Union.—The Knightwick District is vacant by the death of Mr. E. F. Etheridge; area 5852; population 1364; salary £55 per annum.

Penistone Union.—Mr. Charles O. Rowley has resigned the Silkstone District; area 10,450; population 5798; salary £29 14s. per annum.

Pickering Union.—Mr. J. F. Witz has resigned the Lastingham District; area not known; population 3768; salary £30 per annum.

Selby Union.—Mr. David Sinclair has resigned the Cawood and Riccall District; area 11,836; population 3426; salary £30 per annum.

Truro Union.—Mr. T. Markby has resigned the St. Agnes District; area 14,600; population 7925; salary £35 per annum.

Woodstock Union.—Mr. George Thomas Stockwell has resigned the First Woodstock District; area 4633; population 2483; salary £40 per annum.

APPOINTMENTS.

Ecclesall Bierlow Union.—William Dale James, M.R.C.S. Eog. and L.S.A. Lond., to the Third District.

Holywell Union.—David Griffiths, L.F.P. & S. Glasg. and L.S.A. Lond., to the Second Division of the Whitfield District.

Redruth Union.—Thomas Sanctuary, L.R.C.P., L.S.A., and M.B., to the Western District.

Thirsk Union.—George Taylor, M.B. and M.C., to the Knayton District.

IRISH MEDICAL ASSOCIATION.—At the recent quarterly meeting of the Council of this Association a resolution was unanimously adopted acknowledging "the able and valuable services rendered in Parliament by Mr. Charles H. Meldon, M.P., to the public and to the medical profession, with regard to the recent amendment of the Vaccination Laws of Ireland."

CELESTIAL GRATITUDE.—From Shanghai we learn that the wife of Li-hung Chang having fallen ill, and all the native doctors having pronounced her case hopeless, an English practitioner was called in and cured her. As an expression of his satisfaction at this result, Li-hung Chang has established a hospital at Tientsin, under foreign guidance, which is being largely patronised by the higher class of Chinese.

OVARIOTOMY AT THE WOMEN'S HOSPITAL, NEW YORK.—During the ten months, September, 1878, to July, 1879, Dr. Thomas has performed ovariectomy twenty-two times, with twenty-one recoveries and one death—the death occurring in a woman who was sent to the hospital in a most forlorn condition three weeks after her delivery. In nine of the cases cold affusion was employed by Kibbee's method.—*New York Med. Jour.*, September.

POISONING BY SWALLOWING BULLETS.—In the *Annales d'Hygiène* for July a report is given of a clinical lecture delivered by Prof. Potain on the case of a man who had swallowed twenty-six bullets. Entering the hospital with some otherwise obscure symptoms their nature was at once detected by the occurrence of the blue line of the gums in a most decided manner. Saturnine encephalopathy was induced, which proved rapidly fatal.

WARM WATER AS A SURGICAL DRESSING.—Further testimony to the value of this agent is given by Dr. Gollet in the *American Medical Journal* for July. Twenty cases are cited, and the conclusions drawn from them are:—That the warm-water dressings prevent or arrest erysipelas, and have a rapid curative effect upon this disease; that gangrene can be arrested, and thus permit amputation nearer the extremity of the limb; and that pyæmia may be prevented by their use.—*New York Med. Jour.*, September.

FOREIGN SURGERY IN PARIS.—Dr. Yandell, writing from Paris to the *Louisville Medical News* (September 27), states that he assisted Dr. Sayre in the application of the plaster-jacket to a child with diseased spine at the *Hopital des Enfants Assistés*, where he says the children are treated with cruelty by the *internes and nurses*. In the lumbar region were twenty-eight sores made by burning with the actual cautery, and upon the sternum was a raw place half as large as your hand, made by a moxa. "How strange that this practice, so cruel, so barbarous, so useless, and obsolete in America, should still be carried on in Paris! . . . I doubt if the Parisian surgeons will soon adopt Sayre's wonderful dressing. Most of the persons present seemed to take but little interest in its application, till a Spanish physician present told of a doctor in Madrid who got a 15,000-dollar fee from a grateful patient for the cure of a crooked back by Sayre's plastic jacket. After that they looked on with greatly enhanced interest. At one of the clinics I saw between one and two hundred cases of spine and hip disease, and the apparatus used (cumbrous iron machinery) is not only incapable of curing the disease, but in many instances interferes with recovery and insures deformity. The French are behind the age in practical medicine and surgery, and I am astonished to learn from American physicians resident here that the French doctors are the most obstinate opponents of all new things to be found in Europe."

MILK WITH LIME-WATER IN SCROFULOSIS.—Dr. E. Chapman, in a paper in the *New York Med. Record* (August 23), strongly recommends in the various forms of scrofulosis, and especially where there is enlargement of the lymphatic glands, that the employment of milk should be made the basis of all treatment. The usual tonics and dietetic substances, even when aided by favourable hygienic conditions, are rarely of any but temporary benefit. The mischief does not lie in a deficiency in nutritious elements in the food employed, but in the absence of preparation for absorption and assimilation. The true plan of treatment is not to give more and richer food, but less and simpler; not to increase, but to lessen the work of the stomach; not to attempt an artificial, but to restore the natural digestion; and not to

depend upon drugs, but to regulate the diet. Milk fulfils every requirement, and is better than anything else, as it is capable of filling the place both of food and medicine in many grave emergencies. The writer relates several remarkable cases of advanced scrofulosis in which a milk diet, employed either alone or in combination with other agents, has seemed to work most remarkable cures. "To me it seems," he says, "plain that, however urgent the call may be to invigorate the patient and augment his vital resistance, it is of the first moment to adapt the means to the capacity of the stomach. Strong food and active medicine are not infrequently out of place before a simple form of diet has relieved the irritability of the *primæ viæ* and restored the digestive organs to their normal activity."

STATISTICAL SOCIETY "HOWARD MEDAL."—The following is the title of the essay to which the medal will be awarded in November, 1880 (the essays to be sent in on or before June 30, 1880): "The Oriental Plague in its Social, Economical, Political, and International Relations—special reference being made to the labours of Howard on the subject." The Council have decided to grant the sum of £20 to the writer who may gain the Howard Medal in November, 1880. Further particulars or explanations may be obtained from the Assistant-Secretary, at the office of the Society (King's College entrance), Strand, London, W.C. Each essay to bear a motto, and be accompanied by a sealed letter, marked with the like motto, and containing the name and address of the author; such letter not to be opened, except in the case of the successful essay. No essay to exceed in length 150 pages (octavo) of the *Journal of the Statistical Society*. The Council shall, if they see fit, cause the successful essay, or an abridgment thereof, to be read at a meeting of the Statistical Society; and shall have the right of publishing the essay in their journal one month before its appearance in any separate independent form; this right of publication to continue till three months after the award of the prize. The President shall place the medal in the hands of the successful candidate, at the conclusion of his annual address, at the ordinary meeting in November, when he shall also re-announce the subject of the prize essay for the following year. Competition for this medal shall not be limited to the Fellows of the Statistical Society, but shall be open to any competitor, providing the essay be written in the English language. The Council shall not award the prize, except to the author of an essay, in their opinion, of a sufficient standard of merit; no essay shall be deemed to be of sufficient merit that does not set forth the facts with which it deals—in part, at least, in the language of figures and tables; and distinct references should be made to such authorities as may be quoted or referred to.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Cuvier.—Yes, Mr. Frank Buckland, M.A. Oxon., is a M.R.C.S. of 1851, and was formerly Assistant-Surgeon in the Life Guards.

Curious Inquiry.—A correspondent wishes to know whether he is at liberty, being a member of the Royal College of Surgeons, to use the arms and crest of that institution on his writing-paper and on the panels of his carriage. He had better apply to the Heralds' College, Doctors' Commons.

L.D.S.—No advantage is to be obtained by your sending to the Secretary of the College of Surgeons the advertisement, a copy of which you forward to us, as the College has not the power to interfere with its publication, or in any way to stop the objectionable proceedings to which you call attention.

German Railway Employés and Colour-Blindness.—The result of the investigation of the German Railway Department into colour-blindness is that on the State lines one *employé* in 125 is affected by it, and on companies' lines one in 250, but these and local discrepancies in the return imply that the test applied was not uniform.

Increase of Female Drunkenness in London.—Mr. Mansfield, the magistrate at the Marlborough Police-court, a few days since, remarking on the number of females charged with being drunk, stated that he found such cases becoming more numerous than ever. During the previous four days sixty-nine charges of the kind had been preferred at that Court.

Anti-Water-Rate Agitation, Bermondsey.—At a largely attended meeting of ratepayers, to take into consideration the excessive charges made by the Southwark and Vauxhall Water Company for the supply of the district, a resolution strongly animadverting on the action of the Company was unanimously passed, and it was further resolved to convene a mass meeting to protest against the increased rates, and devise means for resisting them. The water companies apparently take advantage of a flaw in the Act of Parliament by charging the consumer not in proportion to the water used, but in proportion to the rateable value of the premises to which it is supplied, which in London is continually increasing.

Food Reform.—It is at the little hall in Castle-street East, Oxford-street, known as Franklin Hall, and named after Benjamin Franklin, that the Food Reform Society, as it is called, holds its weekly and monthly meetings. The success of these meetings has induced several gentlemen interested in the Society to propose the floating of a food reform restaurant company, with a capital of £5000, in £1 shares, with the object of founding establishments for providing vegetable dinners.

A Parish Undertaker's Delinquencies.—The Guardians of Bedminster have had a long discussion on some serious charges made against a parish undertaker, who had secretly disposed of a number of bodies which he ought to have buried in the cemetery, and for the burial of which he had drawn fees. Several bodies of children have been found in the Avon and in the harbour, which are believed to be those of some of the missing children, but they cannot be traced. A reward has been offered for information, and an application has been made to the Home Secretary for a Government inquiry.

Depositing Town Refuse near Inhabited Dwellings.—The contractor for the town refuse has been summoned before the Ramsgate magistrates by the Sanitary Committee of the Local Board for allowing Edgar's-field, on which rubbish and refuse is deposited, to become a nuisance and injurious to health, and for not complying with an order to abate the same. It was proved that there were huge quantities of decomposing house-refuse and other deposits within one hundred yards of eighty-five inhabited houses. The defence was, that the contractor had found it impossible to get rid of the refuse. The magistrates decided to issue an order that no further deposits be made on the field; the largest accumulation to be covered with mould to the satisfaction of the town surveyor, and to be removed within four months, and the remainder one month afterwards.

Cremation and Criminal Poisoning.—Many persons not opposed to cremation on either religious or sentimental grounds find a fatal objection to its adoption in the fact that its practice, as hitherto proposed to be carried out, would effectually destroy all possibility of detecting poison in the bodies of persons who might have been foully done to death by such means. With a view of meeting this objection, M. Lissagaray has devised a new method of cremation to which it does not apply, and has communicated his proposal in due form to the Conseil d'Hygiène. The details of the process are not yet made known, but it is stated that the degree of heat employed never exceeds 100° C., and that consequently the possibility of detecting poisons is not the least interfered with in his system of modified cremation, though it is equally effective with complete combustion as a sanitary measure.

Diseased Meat: a Bad Case.—A scandalous sale of bad meat has just been inquired into at the Crewe Petty Sessions. A butcher at Nantwich was charged with exposing diseased meat for sale. The Town Clerk prosecuted. It appears that it was a practice, on the part of some of the butchers attending Crewe market, to sell good meat in the daytime, but at night when the poor people came, a quantity of bad meat, which was kept under the stalls, was brought forth, and sold at about 5d. per lb. The nuisance inspector succeeded in finding the defendant absolutely selling some of the meat. Altogether he had about eighty pounds of meat which was quite black, and unfit for human food. A veterinary surgeon, who was called in, said that when the poor classes obtained this bad meat, they washed, salted, and hung it, and it was then not dangerous to eat it, although it might make the person partaking it unwell. The defendant, who had nothing to say, was fined £10.

Urban and Rural Sanitary Works.—The Walsall Town Council have decided to purchase forty-six acres of land at Reed's Wood for the purpose of a public recreation ground.—The Manchester Corporation find from returns recently made to them that the Leed-street Baths, which cost the Corporation £17,440, and were opened on August 27 last, have been attended by 18,883 persons; the Mayfield Baths, which have cost £15,406, have been attended by 59,985 persons since June 2 last, on which date they were opened; and the new Islington Public Baths and Washhouses are approaching completion, at a cost to the Corporation of about £23,500.—Two new slaughter-houses have been erected at Cardiff, at a cost of £6000 for each establishment.—The Vestry of Bethnal-green have decided on the plan for a mortuary in the churchyard at a cost of £3000.—The Town Council of Dorchester have ordered the drainage of a portion of the town.—The town of Lewes is about to be drained.—New waterworks have just been formally opened for the town of Cardigan.—The Local Government Board have consented to the formation of Sheffield into a special drainage district by the Belper Rural Sanitary Authority. The area of the proposed district comprises about 500 acres. The sewage is to be disposed of by irrigation. The cost of the scheme is estimated at £3000.—The Provost and magistrates of Rothesay have approved of the system of floating baths, similar to that at Greenock, and the establishment of a bath in Rothesay will be carried out. The success of the floating bath at Greenock is likely to lead to others being constructed for coast towns.—The Metropolitan Board of Works have sanctioned the following loans for sanitary improvements, viz.:—£20,000 to the Guardians of St. Giles' and St. George, Bloomsbury, towards the cost of rebuilding their workhouse; £10,000 to the Guardians of Lambeth for the erection of an infirmary and probationary wards at the Lambeth Schools, Lower Norwood.

Russo-Turkish War: Non-combatants in the Field.—A correspondent, writing from Bucharest on the 19th ult., makes some observations on this subject which are worthy of attention. He states that the vastly increased number of surgeons, Red-Cross officials, and *employés*, hospital attendants, and other non-combatant individuals, attached to modern armies in the field, renders it absolutely necessary to take some measures to regulate their status upon an international basis, in order to prevent confusion by the frequent and well-grounded complaints of these being fired at during the progress of an action. In the recent Russo-Turkish campaign the European journals published frequent reports of one or other of the belligerents having fired upon hospital surgeons or stretcher-bearers of the opposing forces. After explaining the cause of these charges, the writer suggests that surgeons, hospital attendants of all kinds, field-telegraph men, clerks, teamsters, and newspaper correspondents, should wear the same coloured uniform in all armies, the cut and texture of the same to vary with the rank of the wearer.

Artesian Wells, Australia.—Successful borings for water have been made in Frome County, South Australia, in a district hitherto almost devoid of surface water. One well sunk in some arid country near Lake Frome, at a distance of 400 miles north of Adelaide as the crow flies, on being bored to the depth of 370 feet produces a daily supply of 10,000 gallons of excellent water, and other artesian wells in the same district have proved equally successful. This success will stimulate similar enterprise elsewhere. The South Australian Government is sending a scientific expedition to the shores of the Great Australian Bight with a view to the selection of proper sites for artesian wells to tap the deep springs which are known to exist there.

Notes on Liquor-drinking.—Lager beer and ale, both in the manufacture and sale, are rapidly increasing in the United States. The estimated production for the year ending June 30 is 10,000,000 barrels, or nearly two kegs to every man, woman, and child in the country. Two-thirds of this annual production is sold in the spring and summer months. The Board of Health of Massachusetts has recently published a report which states the fact that light German beer is largely increasing in consumption each year in the States, to the exclusion of stronger drinks, and consequently to the benefit of the community. At a meeting of the Business Men's Society for the Encouragement of Moderation, attended by 500 merchants, brokers, and clerks, held in New York on June 23, the members "pledged their sacred honour not to drink as a beverage any intoxicating liquor stronger than wine or beer, and those only in moderation." Since the organisation of the Society, in April last, the pledge had been signed in good faith by 11,000 business men.

Medical Fees.—The third edition of a Tariff of Medical Fees has just been published by the Manchester Medico-Ethical Association. It is recommended in character, but "has served as a reference in disputed charges." It is remarked that the "greatly diminished value of money, and the increase of wealth and luxury among other classes of the community," will lead, before many years, to a considerably higher tariff, although the present period of commercial depression has not been thought opportune for such a change. The fees are calculated on the rental of the patient's dwelling. Householders are divided into four classes—thus, first, those paying from £10 to £25 per annum; the second, from £25 to £50; third, from £50 to £100; and the fourth, those paying £100 and upwards per annum. An ordinary visit to a householder in the first of these classes would be charged from 2s. 6d. to 3s. 6d.; whilst a person in the second class would have to pay 3s. 6d. to 5s.; in the third, from 5s. to 7s. 6d.; and the fourth, from 7s. 6d. to 10s. 6d. A special visit is charged as a visit and a half, and a night visit is reckoned at double fees. Advice at the practitioner's house, or given by letter, is charged at the same rate as an ordinary visit. Midwifery fees vary from one to five guineas. Vaccination charges from 2s. 6d. to 10s. 6d. Mileage and enhanced fees, when the medical attendant is detained longer than the half-hour, usual limit, are provided for. Attendance on servants is reckoned at 2s. 6d. to 5s. Where two or more patients, in one house, are paid for by the same person, it is usual to charge half a visit for each patient after the first. Double fees are suggested for consultations. No scale is recommended for surgical operations; but as a minimum the poor-law allowance is suggested. Certificates of health, death, etc., are to be charged from 2s. 6d. to 10s. 6d. The fees allowed to consultants are higher, a visit or advice from them ranging from one to two guineas. A third scale of fees deals with charges in connexion with trials, inquests, and other special cases. No suggestion is made as to payment for medicine, the Association being of opinion that "medical men should, in all cases, base their title to remuneration upon the value of their time and skill"; and it takes an unfavourable view of the practice of supplying medicines, which now prevails only in England. It is remarked that a wide discretion must be used in the interpretation of the tariff, as in the case of lodgers, keepers of lodging-houses, shopkeepers, and "notoriously wealthy men of penurious habits."

COMMUNICATIONS have been received from—

THE REGISTRAR-GENERAL, Edinburgh; DR. ALEX. DUNCAN, Glasgow; MR. JOHN H. CHAPMAN, Dublin; THE HON. SECRETARY OF THE SOCIETY OF MEDICAL OFFICERS OF HEALTH; THE HON. SECRETARY OF THE PATHOLOGICAL SOCIETY OF LONDON; THE HON. SECRETARY OF THE

ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON; THE REGISTRAR OF APOTHECARIES' HALL, London; THE EDITOR OF "IRON"; DR. BRAKENRIDGE, Edinburgh; DR. MATTHEWS DUNCAN, London; MR. C. J. CULLINGWORTH, Manchester; DR. SPARKS, Mentone; MR. W. WATSON-CHEYNE, London; THE SECRETARY OF THE STATISTICAL SOCIETY, London; MR. J. LEWIS, Birmingham; DR. J. B. BLACKETT, London; MR. J. E. NYPEN, London; MR. F. W. WRIGHT, London; THE HON. SECRETARY OF THE HARVEIAN SOCIETY OF LONDON; MR. G. J. SYMONS, London; MR. CHAS. J. DEVIS, Hereford Infirmary; THE REGISTRAR-GENERAL OF EDINBURGH; DR. J. MITCHELL BRUCE, London; DIRECTORS OF THE NAVAL MEDICAL COMPASSIONATE FUND, London; DR. TAYLOR, London; THE SECRETARY OF THE CLINICAL SOCIETY OF LONDON; MR. A. B. SHEPHERD, London; MR. J. CHATTO, London; MR. T. M. STONE, London; DR. DRUITT, London; MR. D. COLQUHOUN, London.

BOOKS AND PAMPHLETS RECEIVED—

Annual Report of the Society of Medical Officers of Health—Vital Statistics of Queensland for 1878—Manuals of Health, by Francis S. B. François de Chaumont, M.D.—Dr. Blaxall's Report on the Sanitary Condition of Okehampton, Devon—Dr. W. Ogle's Report on the Prevalence of Diphtheria in the Llanddausaint and the Holyhead Districts, and of Small-pox in Holyhead—Mr. T. C. Langdon's Report on the Sanitary Condition of the Rural Sanitary District of Wells—Washington National Board of Health Bulletin—Archives of Medicine, edited by E. C. Seguin, M.D.—Proceedings of the London Medical Society, vol. iv.—The Functional Stage of Granular Kidney, by Dr. Robert Saundby.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Louisville Medical News—Nature—El Siglo Médico—Revue Médicale—The Boston Medical and Surgical Journal—Revista Especial de Oftalmología—Ueber Miasmatische Ansteckung—Centralblatt für Gynäkologie—St. Louis Clinical Record—Die Arsen-giftwirkungen vom Chemischen Standpunkt Betrachtet—Canadian Journal of Medical Science—Philadelphia Medical Times—Students' Journal and Hospital Gazette—Revue d'Hygiène—Journal of Anatomy and Physiology.

APPOINTMENTS FOR THE WEEK.

October 13. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

20. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. The President (Dr. John Cockle) will deliver an Opening Address. Dr. B. W. Richardson, "On the Sphygmophone in Diagnosis."

21. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

PATHOLOGICAL SOCIETY, (S.p.m. Exhibition of Specimens) 8½ p.m. Mr. Butlin—1. Growth in Left Ventricle, with Embolism of the Brachial and other Arteries; 2. Mollities Ossium with Myeloid Tumours. Mr. A. Barker—Caries of Spine affecting Hip-joint and Aorta. Mr. Walsham—Small Round-celled Sarcoma. Mr. A. Doran—Papilloma of Fallopian Tubes. Dr. Moore—1. Disease of both Supra-renal Capsules without Bronzing; 2. Calvaria of Congenital Syphilis. Dr. F. Taylor—Lymphadenoma. Dr. Greenhow—Rupture of the Aortic Valves. Dr. Eve—1. Congenital Hernia with Undescended Testicle; 2. Syphilitic Disease of the Testicle. And other Specimens.

22. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

23. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 14 p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

24. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

CLINICAL SOCIETY, 8½ p.m. Dr. Southey, "Two Cases of Acute Rheumatism." Mr. Lawson, "Cancer of the Breast following upon Eczema of the Nipple of long standing." Dr. Wilks (Ashford), "Case in which a Man was Struck by Lightning."

QUEKETT MICROSCOPICAL CLUB (University College), 8 p.m. Meeting. Mr. A. Martinelli, "On the Germination of a Seed."

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 11, 1879.

BIRTHS.

Births of Boys, 1331; Girls, 1295; Total, 2625.

Average of 10 corresponding years 1369-78, 2252.8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	729	637	1366
Average of the ten years 1869-78	671.2	653.1	1324.3
Average corrected to increased population ... ..	...	...	1417
Deaths of people aged 80 and upwards ... ..	...	...	44

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West	561359	...	5	9	3	4	...	2	1	10
North	751729	...	9	18	6	3	...	6	1	6
Central	334369	...	2	8	2	...	...	3	...	6
East	639111	...	6	15	3	4	...	3	2	19
South	967692	...	8	16	3	12	...	10	1	19
Total	3254260	...	30	66	17	28	...	24	5	60

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	30.260 in.
Mean temperature ... ..	...	...	...	...	...	51.5°
Highest point of thermometer ... ..	...	...	...	...	...	65.3°
Lowest point of thermometer ... ..	...	...	...	...	...	37.3°
Mean dew-point temperature ... ..	...	...	...	...	...	49.8°
General direction of wind ... ..	...	...	...	...	...	N.E.
Whole amount of rain in the week ... ..	...	...	...	...	...	0.00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Oct. 11, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births registered during the week ending Oct. 11.	Deaths registered during the week ending Oct. 11.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		In Inches.	In centimetres.
London	3620868	48.0	2675	1366	65.3	37.3	51.5	10.84	0.00	0.00
Brighton	105608	44.9	69	37	61.9	45.5	52.8	11.53	0.00	0.00
Portsmouth	131821	29.4	102	41	62.5	45.0	53.5	11.95	0.00	0.00
Norwich	85222	11.4	50	30	...	...	...	...	...	...
Plymouth	74293	58.3	44	29	64.2	39.5	53.0	11.67	0.00	0.00
Bristol	209947	47.2	143	55	...	...	...	...	...	...
Wolverhampton	75100	22.1	44	21	61.7	38.0	48.9	9.39	0.00	0.00
Birmingham	388884	46.3	341	122	...	...	...	...	...	...
Leicester	125622	39.3	87	37	65.5	40.5	50.1	10.06	0.00	0.00
Nottingham	169396	17.0	100	66	67.0	37.2	50.0	10.00	0.02	0.05
Liverpool	538333	108.3	452	253	64.5	44.2	50.0	10.00	0.02	0.05
Manchester	361819	84.3	265	167	...	...	...	...	...	...
Salford	177849	34.4	111	80	...	...	...	...	...	...
Oldham	11318	23.9	66	39	...	...	...	...	...	...
Bradford	191046	26.5	107	66	63.2	40.0	48.5	9.17	0.04	0.10
Leeds	311860	14.5	222	112	60.0	42.0	47.2	8.44	0.00	0.00
Sheffield	297138	15.1	220	106	66.0	38.0	48.2	9.00	0.00	0.00
Hull	146347	40.3	94	47	63.0	38.0	48.9	9.39	0.00	0.00
Sunderland	114575	41.4	85	48	72.0	42.0	54.1	12.28	0.00	0.00
Newcastle-on-Tyne	146948	27.4	122	49	...	...	...	...	...	...
Edinburgh	226075	53.9	141	82	60.2	38.0	48.4	9.11	0.04	0.10
Glasgow	578156	95.8	344	200	62.0	39.8	50.1	10.06	0.00	0.00
Dublin	314666	31.3	150	174	61.5	33.7	48.1	8.95	0.05	0.13
Total of 23 Towns in United Kingdom	8502896	38.6	6034	3227	72.0	36.0	50.2	10.11	0.01	0.03

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30.26 in. The lowest reading was 30.10 in. at the beginning of the week, and the highest 30.37 in. on Saturday morning.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURE ON
ILLUSTRATIVE CASES OF THORACIC AND
ABDOMINAL ANEURISM.

By DAVID J. BRAKENRIDGE, M.D., F.R.C.P.E.,

Physician to the Royal Infirmary, and Lecturer on Clinical
Medicine, Edinburgh.

GENTLEMEN,—The following cases have been selected by me as the subject of my lecture to-day, for a fourfold purpose:—

First. To illustrate aneurism as it occurs in the different portions of the aorta.

Secondly. To give you examples of the greater number of the signs and symptoms of the disease.

Thirdly. To indicate some of the many different ways in which its presence may first be manifested.

Fourthly. To put you on your guard against overlooking the aneurism itself, through the close simulation of other diseases which its extrinsic effects may assume.

If I succeed in this last intention the lecture will have served its principal purpose. In the following case an aneurism which might easily have been overlooked was discovered by carefully tracing one of its complications to its cause.

Mrs. B., aged fifty, was admitted into Ward VIII. on November 5, 1877, complaining of loss of power in the left arm and leg.

On Friday, October 26, ten days previous to her admission, she was suddenly seized with paralysis of the left side of the face. Next day (27th) the arm of the same side became completely paralysed, so that she could not move it at all. The following day (28th) the movements of the corresponding (left) leg became slightly impaired.

On admission the lower part of the left side of the face was found to be completely paralysed, the lips remaining permanently closed on that side. The movements of the upper part of the face—as, *e.g.*, winking and wrinkling the forehead—were unimpaired. The left arm was completely paralysed; and the hand was considerably swollen and œdematous, its temperature being also somewhat raised. The left leg was only very slightly affected. The history of this case pointing rather to gradual occlusion of cerebral arteries from thrombosis, probably caused by embolism, than to hæmorrhage, and there being a rheumatic history, the heart was examined. It was noted that the apex-beat was far to the outside of its normal position, and slightly displaced upwards, and that the aortic second sound was considerably accentuated. The episternal fossa was observed to be unsymmetrical, the right half of it being occupied by a pulsating tumour which extended outwards under the sterno-mastoid of the same side. On grasping the origin of the muscle between the finger and thumb, the tumour was felt to expand forcibly and equally in every direction; and on trying to pass the finger behind the manubrium sterni, it was checked by the tumour swelling up from below. The size of this upper, palpable portion of the tumour varied greatly at different times.

On percussion, an area of dullness could be distinctly mapped out, bounded externally by a line about three-quarters of an inch to the right of the sternum, and extending downwards to within a short distance of the cardiac right auricular dullness. Internally the area was bounded by the midsternal line, and was lost below in the aortic dullness.

Auscultation over the dull area elicited only a 'dull prolonged first sound and an accentuated second, both booming in character. The apex-beat of the heart could be distinctly seen and felt between the fifth and sixth ribs, six inches from mid-sternum. It was strong and heaving in character. The vertical dullness in the left parasternal line began in the third interspace. The transverse dullness extended from about three-quarters of an inch to the right of the sternum across to the left for seven inches and one-eighth. On auscultation no distinct murmur was heard in any of the cardiac areas; only a dull prolonged first sound

and a sharply accentuated second sound, most marked over the sternum, but also very distinct at the apex. Both sounds at the base of the heart were clearer, but less booming in character than over the tumour. Arteries atheromatous, veins normal.

In the right interscapular region the percussion note was markedly shorter and higher pitched than in the corresponding region on the left side. The respiratory murmur was also deficient over the right side.

Here we have a hemiplegia coming on and extending very gradually, unaccompanied by any loss of consciousness, presenting rather the characters of gradual thrombosis from an embolus partially obstructing the right middle cerebral artery, than those of hæmorrhage. But the embolism in this case is on the right side of the brain, whereas we know that, in the vast majority of cases, owing to the left common carotid artery being much more in the direct line of the blood-current, an embolus finds its way into the left middle cerebral artery.

There is, however, a history of rheumatism. The heart is examined, and is found to be both enlarged and displaced; the base being depressed, and the apex pushed outwards and elevated. Hence the long axis of the heart, instead of being obliquely downwards, and forwards, and to the left, is almost horizontal transversely.

In searching for an explanation of this alteration of the heart's position, the further discovery is made of a distensilely pulsating tumour, occupying the position already described—evidently an aneurism of the ascending and first part of the transverse portion of the arch of the aorta, also involving, in all probability, the innominate artery.

Thus we have the cause unmasked, both of the displaced heart, and of the passage of the embolus into the right side of the brain. That the aneurismal tumour extended deeply into the chest from before backwards, and pressed considerably upon the right bronchus, is evident from the area dull on percussion mapped out on the right interscapular region, and the weakened breath-sounds all over the right side.

In this case, gentlemen, there was nothing to cause suspicion in the first instance of an aneurism, but you have here a warning against resting satisfied with anything short of a thorough investigation of each case.

Here there were no intrinsic or extrinsic symptoms. There was no pain, and there were no prominent pressure signs or sensations.

Let me draw your attention specially to one fact noted in this case, and which, being visible and palpable, was of great importance in the diagnosis of aneurism from solid tumours such as carcinoma.

There could be seen and felt great variations in the size and boundary of the tumour. Sometimes it presented in the supra-sterno-clavicular region, as a considerable and unmistakable tumour presenting, well marked, that characteristic of aneurism, distensile pulsation. At other times it disappeared under the chest-walls, and was hardly visible or palpable.

Variations in the position and size of the tumour, and also in the pressure phenomena, are, as you are aware, among the important diagnostic characteristics of aneurism.

The patient was discharged on November 19 *in statu quo*.

The two next cases closely resemble one another in the area occupied by the pulsating tumours anteriorly, while in their signs and symptoms they present a most marked contrast. The first of them beautifully illustrates the intrinsic signs of aneurism, while the extrinsic or pressure phenomena are almost entirely absent.

Margaret T., aged forty-four, a charwoman, married, was brought into Ward VIII. on December 6, 1877.

Inspection of the chest anteriorly revealed a marked bulging occupying the upper sternal region and inner part of the sub-clavicular region on both sides, but extending further and being more marked on the left than on the right. The episternal notch was filled up, and well-marked heaving pulsation was observable in it, as well as over the bulging area described above. The superficial cervical veins on the right side were distended, but did not pulsate. On the left side of the neck the veins were normal. Those below the clavicle on the left side were markedly enlarged. On placing the hand over the tumour, a strong heaving systolic expansile impulse was felt, accompanied by well-marked thrill, and followed by an abrupt second impulse or shock—an impulse of arrest. The pulsating area was dull on

percussion. The vertical diameter of this dull pulsating area in the mid-sternal line was three inches; the transverse diameter at the level of the first intercostal space, five inches and a quarter.

The heart presented some slight displacement and other abnormal conditions which need not detain us at present.

Over the tumour, a systolic murmur and accentuated second sound were heard, their point of maximum intensity being to the left of the sternum over the most prominent part of the tumour, where they were decidedly booming in character. Here the presence of a large tumour—presenting well marked the following intrinsic signs: 1st, visible and palpable pulsation, markedly distensible in character; 2nd, double impulse; 3rd, well-marked thrill; 4th, dulness on percussion; 5th, a systolic murmur and accentuated second sound—left no doubt of the presence of an aneurism.

It was very remarkable, however, that an aneurism occupying so extensive an area, and pulsating with a force which visibly upheaved the bony walls of the thorax over it, should have been characterised by so few pressure phenomena. There was no pain, and little discomfort. There was an absence of the signs of pressure on nerves, bronchi, œsophagus, arteries, etc. The only signs of the kind observable were dilatation of the superficial veins anteriorly, and slight displacement of the heart downwards.

Probably the tumour in this case arose from the anterior surface of the transverse portion of the arch, and was spread out as a flat and not very deep layer, pressing rather forwards on the anterior wall of the thorax than in other directions.

The risk of discredit to yourselves and of irreparable injury to your patient, which may result from a hasty or imperfect examination of a case of aneurism, is well exemplified in the following case, which came under my care in September, 1875, when I was temporarily in charge of my present wards in the absence of Dr. T. Grainger Stewart.

The case was sent in by an intelligent physician as one of laryngitis, and was, before I saw the patient (on the second day after her admission), treated as such, the treatment being constant inhalation of steam.

So pronounced was the laryngeal dyspnoea that no great blame could attach to anyone for mistaking this for a case of laryngitis.

Dr. Gairdner, of Glasgow—one of the first to direct attention to the risk of such an error occurring—writes: "The mistake of an intra-thoracic tumour for a laryngeal affection may readily occur in the most careful hands in the absence of a stethoscopic examination."

During my first visit to this patient, on putting some questions to her, I was struck with the perfect freeness of her voice from any huskiness. It was, on the contrary, clear and high-pitched, with a peculiar, punchinello-like tone.

I suggested the possibility of an aneurism pressing upon the recurrent laryngeal nerve, and the consequent examination elicited the following facts.

Inquiring into the history, I found that the patient, Janet G., aged forty-eight, married, was admitted into Ward VIII. on September 1, 1875. Four weeks previous to her admission she had caught cold, and, a fortnight later, after wading in the sea, a difficulty in breathing came on, with harsh cough and tenacious sputa. Her cough was relieved by appropriate treatment, but the breathing became gradually worse, and was hardly possible when she lay on her back or on the left side. Occasionally a free breath could be drawn, but sometimes she became livid in the face with the difficulty. Carefully questioning her, I found that she now had pain in swallowing, and required liquid to wash down any solid food that she took.

Examination of the chest anteriorly revealed marked distensible pulsation over an oval area, which was dull on percussion, including the upper sternal region, and part of the first and second intercostal spaces on both sides, and the left supra-clavicular region, extending beyond the edges of the sternum, for two inches on the left side, and one inch on the right. No murmurs were audible over the tumour anywhere. The left radial pulse was smaller and weaker than the right. The cardiac signs were almost normal, and need not detain us.

In the respiratory system important deviations from the normal were present. The *álæ nasi* played visibly; the voice was clear, but high-pitched. Wheezing rhonchus was heard

in the larynx. The action of the chest-walls was slow, laboured, and deficient. Vocal fremitus diminished over the left side.

Percussion elicited a dull note over the area already described, and also in the left interscapular region posteriorly.

Auscultation revealed harsh breathing on both sides all over the lungs, but loud on the right and much weaker on the left side.

The patient suffered from fits of great dyspnoea.

Laryngoscopic examination showed the vocal cords to be neither congested nor inflamed; the right moved normally, the left was paralysed.

The patient complained of no pain in the back; she had formication in the hands and feet, and slight twitchings of the muscles. She was treated with iodide of potassium in large doses and rest.

During the night of September 25 she got faint, and vomited three drachms of arterial blood in the form of an elongated clot like a cast of the œsophagus.

On September 26 she complained of pain in the abdomen, and passed blood by the bowels.

27th.—Very ill; vomited a small quantity of arterial blood; *fæces* black.

29th.—After vomiting a small quantity of arterial blood the patient died.

To sum up the evidence which this case afforded during life we had—

1st. A pulsating tumour, with corresponding dulness on percussion in the left infra-clavicular region, extending across beneath the sternum to the corresponding region on the right side. Dulness on percussion also in the left interscapular region, but no murmurs in any of the areas.

2nd. Sensation of constriction and pressure in the chest, but no actual intrinsic pain in the tumour.

3rd. Pressure on bloodvessels, indicated by a relative diminution of strength and fulness in the left radial pulse; but absence of any notable obstruction to the veins.

4th. Pressure on nerves, evidenced by laryngeal dyspnoea and the altered voice, indicating pressure on the left recurrent laryngeal nerve, and confirmed by the discovery, on laryngoscopic examination, of paralysis without congestion or inflammation of the left vocal cord.

5th. Pressure on the bronchial tubes, manifested by the weaker breath-sounds and the diminution of vocal fremitus on the left side; also by the harsh and prolonged inspiration and expiration on both sides.

6th. Pressure on the œsophagus, indicated by the pain on swallowing, and the need of liquid to wash down solid food.

7th. Pressure upon the vertebræ, giving rise, not to the boring pain so characteristic of erosion of the vertebræ, for this was absent in this case, but to irritation of the spinal meninges and the anterior and lateral columns of the cord, causing formication and twitchings of the muscles of the extremities.

8th.—Leakage of blood into the œsophagus, leading to the vomiting of small quantities of blood and the passage of dark hæmorrhagic stools.

With such a series of signs and symptoms the diagnosis was inevitable which was made, viz., an aneurism of the left half of the transverse portion and the descending portion of the arch of the aorta, pressing upon the left bronchus, the left recurrent laryngeal nerve, the œsophagus, the subclavian artery, and the vertebral column. It was also afterwards clear that death had resulted from rupture of the aneurismal sac into the œsophagus. This diagnosis was completely established by the post-mortem examination. The aneurism, situated as diagnosed, had opened into the anterior and right side of the œsophagus; the left recurrent laryngeal nerve was flattened upon it. It pressed upon, and was adherent to, the left bronchus; and the dorsal vertebræ, from the fifth to the ninth, which were eroded, formed the posterior wall of the sac.

Before we pass on, gentlemen, fix on your minds that such a case as this, where there is present a whole array of facts confirmatory of the presence of aneurism, may present symptoms that are mistaken for laryngitis, and I am sure you will be impressed with the necessity for great caution in all cases of laryngeal dyspnoea which come under your care. In many cases you will not meet with such complete evidence as you have here; indeed, in few is the aneurismal picture so well filled in. An aneurism, quite latent in so far as any other signs or symptoms

are concerned, may reveal itself by severe or even fatal dyspnoea. Always in cases of doubt employ the laryngoscope, which, if pressure on the recurrent laryngeal nerve be present, will reveal spasm or paralysis of one of the vocal cords.

In the following case at present (May 20) under my care, a mistake might readily occur. Indeed, three different candidates for the diploma of the Royal Colleges of Physicians and Surgeons diagnosed the case as one of loculated pleurisy with effusion. The trap which the case presents for such a mistake is very simple, as you will see.

Michael B., aged forty-two, a porter, was admitted into Ward VII. on January 17, 1879, complaining of pain in the back, which he first observed eleven months previously, and which has incapacitated him for work for five months. Nothing in his family history or habits throws light upon his present illness, except that his occupation of porter has necessitated his making great efforts in lifting heavy weights. He cannot remember having had any illness previous to the present. Eleven months ago he first noticed severe pain in the small of the back when he sneezed. After this, he observed, when he exerted himself, a pain in the region of the left scapula, which shot through the chest from the back towards the nipple. This pain had been constant for six weeks when he was admitted.

He was examined on January 19, two days after admission, and the following are the most important points that were noted:—

The alimentary system presents no important deviations from the normal. There is no difficulty in swallowing.

Circulatory System.—No cardiac pain, palpitation, or dyspnoea is complained of. The apex-beat is seen and felt in the fifth intercostal space, almost in the mammary line. Pulsation can also be seen and felt in the first and second right intercostal spaces three-quarters of an inch from the sternum, and in the first, second, third, and fourth left interspaces close to the sternum. On both sides this pulsation is most marked in the first interspaces, and is somewhat heaving in character. Over the pulsating area there is dulness on percussion.

Cardiac Dulness.—In the left parasternal line the percussion note rises in pitch at the upper border of the second rib. The transverse dulness at the level of the fourth rib commences four inches and a half to the right of mid-sternum, becoming almost absolutely dull two inches and a half from mid-sternum. From the first point the dulness extends across the chest for eight inches.

Auscultation.—In the mitral area, a long systolic murmur almost entirely replaces the first sound. In the aortic area the second sound is distinctly accentuated. The pulmonary second sound is also accentuated. The accentuated second sound, but no murmur, is heard over the dull pulsating area above the base of the heart. The radial pulse is 84 per minute, regular, and compressible; the right weaker than the left.

Examination Posteriorly.—Inspection shows distinct pulsation in the left interscapular region, from the level of the interval between the second and third dorsal vertebrae to that between the fourth and fifth—most marked at the lower part. There is none on the right side. The pulsation extends from very near the spinous processes outwards for about three inches below; less above. Palpation confirms these points, and shows the pulsation to be of a distinctly distensible character. It is most distinct at the level of the fourth dorsal vertebra, near the spine. No pulsation can be felt on the right side. Vocal fremitus is absent over this area. Percussion elicits decided dulness extending vertically from the level of the first to the fifth dorsal vertebra, and transversely from the spine to the left for three inches and a quarter, and to the right for two inches and a half.

Auscultation.—Over this dull area, especially where the pulsation is best seen and felt, a well-marked systolic murmur and diastolic sound can be heard. These are not audible on the right side.

Respiratory System.—Expansion, vocal fremitus, and vesicular murmur are relatively deficient all over the left side. On this side the breath-sounds are somewhat bronchial in character, and the vocal resonance is diminished. On the right side the breath-sounds are harsh.

Nervous System.—There is tenderness over the dull area, and severe pain is complained of in the spinal column opposite the dull pulsating area above referred to. This

pain also extends round the chest. There is no tenderness or increase of pain on pressing or percussing the spine, but the pain is relieved by lying on the face.

These are the most important facts in this interesting case, which is still under observation, and which under iodide of potassium and rest has greatly improved.

We have here, then, in the interscapular region a well-defined area, presenting the following intrinsic signs:—

1st. Percussion dulness.

2nd. Well-marked distensible pulsation.

3rd. A loud systolic murmur and a diastolic sound.

4th. Diminished respiratory sounds, vocal fremitus, and resonance.

Also the following extrinsic signs:—

1st. Pressure upon the heart and aorta, by which they are displaced upwards and forwards, the heart and aorta being flattened and broadened against the anterior walls, indicated by the wide area of the cardiac percussion dulness and the pulsation in the upper intercostal spaces.

2nd. Pressure upon the left bronchus, and to a less degree upon the right, indicated by the harsh breathing on the right side, and the diminished expansion, vocal fremitus and vesicular murmur, and the bronchial breathing on the left side.

3rd. Pressure on the vertebral column, indicated by the pain in the back, which is relieved by lying on the face.

This evidence unquestionably points to aneurism of the descending thoracic aorta. A loculated pleurisy occupying the same position might, in some of its signs and symptoms, very closely simulate those present in this case, but the very well-marked distensible pulsation, and more especially the loud systolic murmur and second sound, heard best at the point of greatest percussion dulness and maximum pulsation, are conclusive evidence in favour of aneurism.

The aorta passes from the thorax into the abdomen through the crura of the diaphragm.

Abdominal aortic aneurism presents extrinsic signs and symptoms necessarily different from the foregoing, and modified by the situation of the tumour and the various structures with which it comes into juxtaposition.

Usually situated between the pillars of the diaphragm, at or near the coeliac axis, where its room for development is very limited, it may press upon the inferior vena cava, the thoracic duct, the lower portion of the oesophagus, and the adjacent vertebrae, and will give rise to corresponding phenomena.

When, however, you recall to mind that, in this situation, the artery is closely embraced by the nervous network of the solar plexus and the semilunar ganglia, you will not be surprised to find that the earliest and most prominent extrinsic signs and symptoms of abdominal aneurism are usually pain and various visceral disturbances referable to pressure on or stretching of these nerves.

The pain usually met with in abdominal aneurism is of two kinds. The first, more or less constant, is due, in many cases, to persistent nerve-stretching, also in others to pressure on and erosion of the vertebrae. In the latter case there is tenderness on pressure over certain of the vertebrae. The second kind of pain occurs in paroxysms of excruciating agony, and radiates over the wide area in both thorax and abdomen over which the ramifications and communications of the solar plexus extend. It is almost always due to temporary increase of nerve-stretching from any cause which increases the arterial tension, e.g., a full meal, stimulants, copious fluid draughts, etc.

The effects of this abdominal disturbance of the sympathetic nerve plexus are further manifested by various disturbances of the abdominal viscera, e.g., dyspepsia, constipation, very often colic-like attacks with localised accumulation of gas in the intestines. Here again, as in the thorax, certain pressure phenomena may so obtrude themselves on our notice as to lead to their true cause being overlooked.

The following interesting case is still under observation:—During my absence from Edinburgh last month, Cicely H., aged thirty-two, was admitted into Ward VIII., suffering from acute rheumatism, for which she was successfully treated by my last resident, Dr. Macdougall.

On my return to town, he drew my attention to the interesting fact that she had, a few days previously, suffered from a well-defined, round, tense swelling of considerable size, between the umbilicus and the pubes, which presented the appearance of a greatly distended bladder—a condition

all the more closely simulated from the fact that she suffered from pain during and after micturition.

Previous to passing a catheter, Dr. Macdougall percussed the tumour, and, to his surprise, found that it yielded a tympanitic note.

In spite of suitable measures employed to relieve this colicky distension, the tumour had persisted for three days, and then completely disappeared.

I may mention here, parenthetically, that it has recurred several times since, lasting on one occasion for ten days.

Knowing this to be an occasional extrinsic pressure sign of abdominal aneurism, I at once placed the patient under chloroform, and discovered a well-pronounced aneurism, the characters and position of which I will give from the clinical clerk's report of the case.

On inspection of the abdomen, an undue prominence can be seen in the umbilical region, especially well marked on the right side, and extending upwards into the epigastric region. It pulsates visibly. On palpation an oval, smooth, elastic, pulsating tumour, situated as above stated, is felt. It is about four inches long and three broad. The pulsation is markedly distensible in all directions. There is no tenderness on pressure. This pulsating area is absolutely dull on percussion. On auscultation two sounds are heard, the first dull and thumping, the second much less audible. At a point posteriorly on the right side, exactly opposite the bulging anteriorly, a systolic murmur and a second sound are heard. The patient suffers from a constant pain in the back across the sacrum, several inches lower down than the position of the tumour. This is worse during and after micturition.

The following symptoms are also probably referable to interference with the nerve function due to the aneurism:—During fasting the patient has occasional twinges of acute pain in the epigastrium. After eating she has a constant heavy pain rather lower down. She suffers from acid eructations and waterbrash. She frequently vomits her food simply undigested, especially if she has taken it warm, also after drinking water. Her bowels are constipated.

The aneurismal tumour here apparently involves a considerable portion of the abdominal aorta; the position which it occupies extending from the level of the coeliac axis down to a little above the bifurcation of the aorta. Probably it is, however, of the false saccular variety, and has its starting-point above in the region of the aorta surrounded by the solar plexus. The branches of this plexus are evidently involved, but the pressure phenomena are comparatively few, as the principal bulk of the tumour is in the umbilical region, where it has ample room to develop and expand.

It is noteworthy that, in this case, the aneurism occurs in a comparatively young woman, in whose arteries there is no evidence of atheroma. This is, however, quite in accordance with the well-established fact that abdominal aneurism is comparatively rarely associated with extensive aortic atheroma, and usually results from some mechanical injury, such as strain or blow, although a distinct history of such cannot be ascertained in this case.

Abdominal aneurism in the female is comparatively rare.

Gentlemen,—The scope of this lecture has necessitated the omission of many important points connected with aneurism. I have, however, now completed the task I set myself at the outset.

I have placed before you examples of aneurism as it affects the aorta in all its different parts:—

- 1st. The ascending portion, and the right extremity of the transverse portion of the arch, with the innominate artery.
- 2nd. The transverse portion.
- 3rd. The left division of the transverse portion, and the descending portion of the arch.
- 4th. The descending thoracic aorta; and
- 5th. The abdominal aorta.

In connexion with these I have been able to array before you most of the signs and symptoms of the disease, both intrinsic and extrinsic, in their clinical groupings.

I have illustrated some of the many ways in which the presence of an aneurism may first be manifested.

And, finally, I have endeavoured to put you on your guard against the fallacies which may beset your diagnosis from the prominence of secondary and extrinsic phenomena by placing before you cases in which the aneurisms gave rise to the phenomena of such widely different diseases as hemiplegia, laryngitis, loculated pleurisy, and colic.

Aneurism usually terminates by hæmorrhage into the bronchi, œsophagus, pleural cavity, stomach, peritoneum, or some other neighbouring organ. It may end fatally by exhaustion, or from various pressure complications, which I need not enumerate.

Much may be done in many cases to favour or effect a cure. The indications for the treatment of this disease are:

1st. To diminish arterial tension by rest, strict limitation of the amount of liquids drunk, and of the quantity of the food, which should be nourishing, and large doses of iodide of potassium—a drug which, by relaxing the arterioles, relieves arterial tension generally.

2nd. To favour coagulation of the contents of the sac by the foregoing means, and more directly by electrolysis; and, in the case of abdominal aneurism, by pressure on the aorta above or below the tumour or both; thus arresting the current of blood and favouring its coagulation.

Note (October 8, 1879).—In only the two last of the foregoing cases was a fair opportunity afforded me of testing the effects of treatment.

The results obtained in these cases may not be uninteresting.

The means employed in both were rest in the recumbent posture, strict regulation of the amount and quality of the food, and large doses of the iodide of potassium.

Michael B. was dismissed on June 10 much improved, after having been under treatment for five months.

The following is a short report of his condition at that date:—

No abnormal pulsation can now be seen or felt in the episternal or upper sternal regions, in the upper intercostal spaces, or over the præcordia. The dulness on percussion, which was formerly well marked over this area, has disappeared. The area of cardiac dulness is now quite normal.

No systolic murmur can now be heard in the mitral area; the first sound is reduplicated; the second is somewhat impure. In the aortic area the first sound is feeble, the second unaccentuated.

Posteriorly, the area of dulness on percussion has diminished considerably in extent. No pulsation can now be seen in it, and very slight pulsation can be felt, which is not perceptibly distensible in character.

On auscultation, a very feeble systolic murmur and an unaccentuated second sound are heard.

The pain in the back and all discomfort have completely disappeared.

There is thus evidence of considerable diminution in the size of the aneurismal sac, and of probable consolidation of its contents.

Cicely H. is still under treatment.

The abdominal aneurism present in her case has diminished considerably in size, being at least a third less than when first examined.

It is much more solid to the touch, and the distensible character of the pulsation is much less distinct than it was.

But while the aneurism has thus distinctly improved, the secondary flatulent tumour of the small intestines has become larger and more persistent than ever. It has now been present without intermission for a fortnight. Probably some of the nerves of the solar plexus are implicated in the walls of the contracting sac, and their function is thus interfered with.

SPONTANEOUS GANGRENE IN A NEW-BORN INFANT.—

Dr. Bidder related at the St. Petersburg Medical Society a remarkable case, in which the left foot of the fœtus presented for twelve hours, owing to the weakness of the pains, in a birth otherwise quite normal. As soon as they became stronger, delivery was easily accomplished. The foot and leg were, however, observed to be blue and œdematous, and in a few days complete gangrene was developed, with an incomplete line of demarcation above the malleoli. Superficial gangrene also affected the ends of some of the toes of the other foot. Amputation of the leg was performed on the fourteenth day. Primary union followed, and the child recovered. The cause of the gangrene was quite obscure, for no pressure of an injurious extent had been exerted by the uterus on the limb. Neither Dr. Mayerhofer, who had had under his notice 100,000 births at Vienna, nor Dr. Rauch, who perhaps has seen as many cases, ever met with a similar occurrence.—*St. Petersburg Med. Woch.*, August 30.

CLINICAL LECTURES ON DISEASES OF THE HEART IN CHILDHOOD.

Delivered at the London Hospital.

By ARTHUR ERNEST SANSOM, M.D. Lond., F.R.C.P.,
Assistant-Physician to the London Hospital, and Senior Physician to the
North-Eastern Hospital for Children.

LECTURE III.

HEART DISEASES ASSOCIATED WITH SCARLATINA AND MEASLES.

THE etiological relation between scarlatina and heart-disease has been long recognised. Of the 122 cases of diseases of the heart in children noted by Dr. West, fifteen were traced to an attack of scarlet fever. Three of these were cases of pericarditis, two of pericarditis and endocarditis conjoined, and the remaining ten of endocarditis.(a) Dr. Hayden regards the poison of scarlet fever as next in frequency to rheumatism of the hæmic causes of disease of the heart, "and perhaps superior to it in potency." He adds, "Many of the most formidable examples of valvular lesion that I have met with owed their origin to scarlatina. The patients are generally children, and rarely survive the second period of life. The complication is usually declared in the second week of the fever, but occasionally in the first week or in the stage of desquamation."(b) Trousseau, who also recognised the relation, maintained that the cardiac complication was due not to the direct operation of the scarlatinal poison but to the co-existing rheumatism; for it is well known that articular rheumatism may be associated with scarlatina. In the experience of Trousseau rheumatism occurred in one-third of the cases of scarlatina in adults. These considerations bring before us the question—Is the heart-disease which is associated with scarlet fever due to the direct operation of the zymotic poison or to some superinduced condition? We will proceed to interrogate our cases.

Amongst the instances of cardiac disease occurring in relation with scarlet fever which have come under my notice I have recognised two types—one in which there has been a distinct intervention of articular phenomena; the other in which no signs of obvious rheumatism have been manifest.

TABLE III.—*Heart Disease in Children associated with
Scarlatina and Measles.*

A. SCARLATINA (13 cases)—

Pericarditis (3 cases):

Uncomplicated 1 case
Complicated with endocarditis (mitral regurgitation) 2 cases

Endocarditis (10 cases): inducing—

Mitral regurgitation 8 „
(In one case dilatation of left and right cavities.)

Mitral stenosis 1 case
Mitral stenosis and regurgitation 1 „

B. MEASLES (6 cases):

Pericarditis with Endocarditis (mitral regurgitation). 1 „

Endocarditis: inducing—

Mitral regurgitation 3 cases
(In one case hypertrophy and dilatation;
in one case tricuspid insufficiency.)

Mitral stenosis 1 case
Mitral stenosis and regurgitation 1 „

As an example of Type 1 we may take the case of Lydia D., aged five, who was under the care of my colleague at the North-Eastern Hospital for Children, Dr. Cayley. The child was said to have had an attack of rheumatic fever six weeks before her admission into the hospital. On cross-examining the relatives, however, it was found that the illness commenced with sore-throat; that coincidently, or perhaps just previously, there was a red rash over the body; that a fortnight after the onset, swelling about the face, and especially about the eyelids, commenced, and then the swelling became general over the surface. On admission it was found that the child manifested general œdema; the

urine was highly albuminous; there was well-marked evidence of mitral regurgitation, which long observation of the case showed to be due to structural disease of the valve. There can be no doubt that in this case the malady which was denominated "rheumatic fever" was really post-scarlatinal rheumatism. It points out to us a possible source of error as to the etiology of those cases which we have designated "rheumatic." We are of course liable to be deceived by the imperfect evidence of parents or relatives, and it is quite possible that some of the cases which have been described to us as associated with "rheumatic fever" or with rheumatism have been the concomitants or the legacies of scarlatina. As another instance, we may take the case of William F. S., who was under my own care. He had had scarlatina three months before he came under my notice; he had been out of health since the attack, but had shown no obvious symptom except wasting, and occasionally a troublesome cough. The urine was normal. He was treated by administration of iron and cod-liver oil, and whilst under treatment one month after his first application, and four months after his attack of scarlatina, swelling of the wrists and hands came on, and a systolic murmur was developed at the apex of the heart. Then pericarditis occurred, immediately attended with loud friction-sound. A month after its first manifestation the to-and-fro sound had passed away, but in addition to the murmur of mitral regurgitation a musical systolic bruit at the base, ascribed to aortic obstruction, had become evident, and a week subsequently there was in addition the diastolic murmur of aortic regurgitation.

It may be objected that the occurrence of the attack of acute rheumatism in this case was too remote from the attack of scarlatina to be distinctly in causal relation therewith, but we have the evidence of other cases showing that the development of rheumatoid phenomena may be in point of time nearer the zymotic onset, or may be more remote. In the case of Kate G., aged four years eight months, scarlatina occurred in the winter, followed by dropsy, and rheumatism in the following May; this child manifested the signs of mitral regurgitation. In another case, a little girl of nine, who suffered scarlatina at Christmas and had ailed ever since, had, after exposure to cold, manifested subacute rheumatism in the following October; here also there was the murmur of mitral regurgitation. It appears most probable that scarlatina can in some cases, without any other exciting cause, induce a condition in which both rheumatism and cardiac disease can become manifest, and that in some others it can render the system susceptible so that the rheumatic disease may be readily determined by influences from without.

We will now turn to the cases illustrating Type 2—those in which there was no evidence of intervention of articular phenomena.

Case 1.—Susan J., aged six, under my care at the North-Eastern Hospital for Children, had had an attack of scarlatina six months previously to her admission. There was no evidence of any condition resembling rheumatism, but she had ailed ever since her attack with cough and dyspnoea, attended with facial œdema. There was a blowing systolic murmur at the apex of the heart. Three days afterwards there were evidences of pericarditis, greatly extended præcordial dulness, with to-and-fro friction sound about the base; the systolic murmur at the apex had now a whistling character. The symptoms became rapidly aggravated, and the child died one week after admission.

In *Case 2*, Elizabeth M., aged six and a half, had scarlatina three months before coming under notice; her symptoms were feverishness, headache, and pain in the left side. She manifested the murmur of mitral regurgitation and pleuritic effusion in the left chest.

In *Case 3*, a little girl aged ten, who had been previously quite well, contracted scarlet fever, and, after indefinite ailment for about three months, developed symptoms of chorea; with her there was the murmur of mitral regurgitation. In two other cases, in which there was no history of rheumatism but distinct evidence that an attack of scarlatina had been followed by a total change in the previous condition of health, with no manifestation of distinct rheumatism, chorea had been manifested—in one case seven months after the fever; in another six years afterwards. In both these cases there were murmurs of mitral regurgitation. In two other cases, children who had had previous good health became attacked with scarlatina, and subsequently became subject to cough and dyspnoea. In one of

(a) "Diseases of Infancy and Childhood," sixth edition, page 529.

(b) "Diseases of the Heart and Aorta." Dublin, Fannin; London, Churchill; 1875; page 315.

these cases the attacks of dyspnoea in a boy of ten had lasted since scarlatina occurring five years previously; he manifested a well-marked presystolic murmur internal to the heart's apex with pronounced thrill. In the other case, a little girl two years old had suffered from scarlatina when nine months old, with cough and dyspnoea since; here there was a loud systolic murmur at the apex. In another case, under the care of Dr. Cayley, a boy aged seven had scarlatina when three years and a half old; two months afterwards he manifested dropsy, vestiges of which continued for eleven months. When admitted, there had been return of the dropsy, with great dyspnoea. There were manifest both presystolic and systolic murmurs at the heart's apex. The urine was albuminous, and contained tube-casts. Under treatment (by paracentesis abdominis and administration of digitalis) the cedema cleared away, and the boy was discharged much relieved.

It appears to me evident that scarlatina, occurring in a healthy child, may be a cause disposing to cardiac disease—pericarditis, or endocarditis; and this sometimes with, and sometimes without, the manifestation of distinct rheumatic phenomena. From the evidence before us, I think we may conclude that the probabilities are against the view that the heart-disease is due to the *direct* operation of the zymotic poison. We find that it is not developed with any signs of pyrexia; that it is not associated with the zymotic disease in the acute period of manifestation of the latter; that it may occur after the lapse of periods during which symptoms of indefinite ill-health may be manifested in varying degrees of remoteness from the original attack. The forms of disease seem to bear a striking resemblance to those occurring in association with rheumatism, and we have not to seek far in order to find the link which associates the morbid conditions in the one case with those in the other. In rheumatism there is strong reason to believe that the phenomena are due to the retention in the blood of lactic or uric acid and allied excrementitious products. In scarlatina the blood is loaded with material that should, in normal conditions, be excreted; moreover, elimination is peculiarly difficult, so that with increased production there is impeded excretion, and uric acid and other effete products are retained in the circulation to work their toxic effects. The most important post-scarlatinal phenomena are (1) rheumatism and (2) albuminuria. Dr. Mahomed has called attention to the correlation of these.(c) Both complications appear frequently to be induced by the same cause—constipation or chill. This is but a superadded difficulty to an already defective elimination. The blood surcharged with effete products reacting on the fibrous structures of the joints may induce the pain and swelling of articular rheumatism, or it may influence the pericardium or endocardium to produce pericarditis or endocarditis. Or the reaction of the poisoned blood may be more pronounced upon the kidney, and then we have transudation first of the crystalloids, afterwards of the colloids, into the urine. There is albuminuria and renal disease. When such condition is induced, even though there be no intervention of rheumatic phenomena, we have abundant clinical evidence of the probability of the occurrence of cardiac disease, especially pericarditis. The lesion of the kidney which follows scarlatina is exactly similar to the inflammatory form of Bright's disease, and we know that pericarditis is one of the most common complications of Bright's disease. Thus far, therefore, it seems to be much more probable that the disease of pericardium or of endocardium which is associated with scarlatina is due, not to the direct operation of the zymotic poison, but to a superinduced condition, which bears a striking relation with rheumatism. It behoves us, however, to inquire whether there be any other zymotic disease with which cardiac disease may be associated, and we are met by the facts recorded in the table which indicate a certain relation with *measles*.

Dr. West has mentioned a case in which acute endocarditis supervened on the decline of the eruption of measles; pneumonia was developed also, and the patient died. In another case the symptoms of heart-disease showed themselves gradually after convalescence from measles.(d) Dr. Hayden considers that endocarditis is occasionally set up by

the specific poison of rubeola.(e) The most remarkable case I have met with, showing this mode of causation of heart-disease, was one which I saw in consultation with Mr. Alexander Towne, of Kingsland-road. A little girl of six years of age suffered from a typical attack of measles in common with other members of the same family. The attack commenced in the middle of December, 1873; there was an abundant rash, which on fading left much blueness of surface. At Christmas there was sufficient recovery for the child to be about again, but a fortnight afterwards there occurred a violent attack of chorea, attended by left hemiparesis. On examining the heart region, we found abundant evidence of pericarditis, with loud friction sound, and endocarditis was also manifested by the development of a loud systolic murmur at the apex. There could be little doubt that the nervous lesions were due to cerebral embolism. This formidable attack, during the persistence of which life seemed oftentimes threatened, ended in a good recovery, the lesion of mitral regurgitation remaining. I have seen the little girl many times since; she appears in very fair health, the mitral lesion being well compensated. Throughout there were no signs of rheumatism, nor is there any evidence of a rheumatic family tendency.

In the other cases noted in the table the history was told of good health until the attack of measles, and then failure, and the examination of the heart showed the recorded signs of disease. Although the evidence is insufficient to establish the point with any certainty, I would point out the probability that the *obstructive* mitral lesion appears to occur with greater relative frequency than under the circumstances of rheumatism or of scarlet fever. From all the evidence, I cannot but conclude that measles, like scarlatina, is an occasional determining cause of pericarditis and of endocarditis. We have yet to consider whether the results issue directly from the operation of the zymotic poison or not. We have reason for regarding the heart-disease in the case of scarlatina as the indirect and not the direct result, and like evidence seems to point to a similar conclusion as regards rubeola, but we have yet further data to consider.

SCIENTIFIC AND PRACTICAL DOCTORS.—Dr. Yandell, writing from Paris to the *Louisville Med. News*, October 4, says:—"I hear a great lot of talk on this side the water about scientific as distinguished from practical medicine. I hear it said of certain men, 'Oh yes, he is a good practitioner and a sensible writer: but he is not at all well up in modern pathology and that sort of thing.' I do not know what your definition of a scientific doctor is, but from somewhat extended and ample observation I have learned that to be *au fait* in modern scientific medicine consists in being thoroughly posted up in all the minutiae of the latest vivisections, hypodermic injections, and therapeutic experiments on dogs, frogs, rabbits, pigeons, etc., and in treating your patients according to hypotheses based upon this sort of work. The more youthful scions of scientific medicine, of course, change their theories and practice from time to time, so as to be in accord with the ever-varying latest teachings. The old and solid scientific timber retains, without modification, however, the earlier impressions made upon it. Thus it happens that we find a not inconsiderable variety of opinion and practice among the so-called scientific doctors. Science and truth are synonymous terms, and the true scientific physician is one whose faith and practice are founded upon established facts, in contradistinction to supposed, imagined, or conjectured facts. The French physician is eminently scientific, in the common comprehension of this term; but he is eminently not a practical physician, and he does not cure his patients. Indeed, in the hospitals, the healing the sick seems a matter of very minor consideration. Clinical material in Paris is unlimited in variety and amount, and the physician who desires a large field for the study of the natural history of disease will find all that he could desire here. But there is no more unfortunate step that a medical student can take than to go to Paris or Vienna to study medicine. He might just as wisely go to either place to learn morals, as to learn how to practise physic. The United States is the best place in the world to make doctors."

(c) "The Etiology of Bright's Disease and the Pre-albuminuric Stage." *Medico-Chirurgical Transactions*, vol. lvii., page 197.

(d) "Diseases of Infancy and Childhood," page 529.

(e) "Diseases of Heart and Aorta," page 315.

ORIGINAL COMMUNICATIONS.

THE PATELLAR TENDON REFLEX.(a)

By BYROM BRAMWELL, M.D.,

Late Physician and Pathologist to the Newcastle-on-Tyne Infirmary;
Late Joint Lecturer on Clinical Medicine and Pathology in the University
of Durham College of Medicine, Newcastle-on-Tyne.

(Continued from page 394.)

Alterations of the Phenomenon in Disease.—The patellar tendon reflex may be either diminished, absent, or exaggerated in disease. Practically, it is best to consider only those cases in which it is absent or decidedly exaggerated; for, owing to the great differences in degree which we find in apparently healthy individuals, it is impossible to fix upon a common normal standard.

Cases in which the Patellar Tendon Reflex is absent.—Anything which impairs the integrity of the nervous arc will, of course, prevent the due conveyance of the stimulus, and hence the contraction of the muscle.

As yet, so far as I am aware, no case has been recorded in which it has been clearly shown that the arrest has taken place in the sensory or motor nerve trunks which convey the stimulus from the muscle to the cord, and from the cord to the muscle, respectively (sensory fibres of the anterior crural and obturator nerves, motor fibres of the anterior crural). Lesions of the second, third, and fourth lumbar nerve roots, both anterior and posterior, will, of course, arrest the phenomenon. Such lesions not unfrequently result from meningitis.

Disease, however, of the cord itself, lumbar portion, is the chief cause of arrest of the reflex. All diseases of the lumbar cord will not, of course, interfere with the phenomenon. It is only when that particular portion of it through which the impulse has to pass is diseased that an arrest will occur.

Let us stop, then, for a moment to trace the course of the reflex through the cord. "The centripetal paths, which convey a stimulus inward," says Erb, "lie beyond a doubt in the posterior roots; those which convey forth a stimulus, the centrifugal, or motor, lie in the anterior roots; but of that which lies between these two routes and its histological structure we are not well informed. We may, however, guess that there are branch conductors given off both from the sensory and from the motor paths at various points within the spinal cord, which meet each other at certain ganglia and groups of ganglia (reflex centres), and enter into conductive communication with each other."

Lesions, therefore, of the posterior root fibres of the second, third, and fourth lumbar nerves; of those portions of the grey matter through which the reflex fibres pass; or of the anterior root fibres of the second, third, and fourth lumbar nerves, by interfering with the reflex filaments, will prevent the occurrence of the phenomenon.

I now pass to consider some of the special diseases in which the patellar tendon reflex is absent. The first, and by far the most important, is locomotor ataxy.

Locomotor Ataxy.—Westphal, Grainger Stewart, and Buzzard state that the patellar tendon reflex was absent in all the cases which they have examined. Such, too, was the fact in three cases which I have had an opportunity of examining during the past year.

The leading particulars of these cases are as follows:—

Case 3.—Locomotor Ataxy—Tendon Reflex lost—Skin Reflex retained.

R. C., aged forty-seven, married, a striker, was admitted to the Newcastle-on-Tyne Infirmary, under my care, on April 23, 1878, complaining of difficulty in walking.

Previous History.—He has been ill three years, and has been off work two years. Until the present attack commenced he enjoyed good health. He remembers, however, that nine years ago his left eye was "bad," it used to lead him wrong, and he thinks he had a squint. He has occasionally had sharp, shooting pains in various parts of the body. The present attack commenced with a feeling of numbness in the fingers of the left hand. He used, too, at the same time, to stamp the left foot while at work. His fellow-workmen used to make remarks about his stamping. He could not help it. Soon after this he first noticed

that he had some difficulty in walking. It was worse in going down a bank, and much worse in the dark. He thinks he has lost some flesh, but has always been a thin man. He has never suffered from headache. He has been steady all his life; has not had syphilis; his occupation was a very laborious one.

Family History.—Very good.

Present Condition.—The patient is very thin, and looks ill. The gait is most typically that of locomotor ataxy. Co-ordination in all four extremities is much impaired. The balancing-power, when the eyes are shut, is very bad indeed. Sensibility of all sorts (touch, pain, temperature, power of localising impressions, power of appreciating weights) is very much impaired in the lower extremities, and to some extent in the upper. He complains of a tight feeling round the abdomen. The muscles generally are wasted and flaccid. Fibrillary twitchings are occasionally seen in all four extremities. The muscular power in the left side of the face and left arm is decidedly less than in the right, and there has evidently been some former cerebral lesion. The patellar tendon reflex is quite absent, but the ordinary reflex on tickling the soles of the feet is well marked. Sight is good with spectacles; the pupils are equal and contracted, the discs slightly indistinct at their edges. He is very costive, and makes his water with great difficulty; it has occasionally dribbled away from him. The other systems and organs are normal.

Treatment.—He was treated with full doses of iodide of potassium, cod-liver oil, and good food, and on June 19 was, at his own request, made an out-patient, his general health being decidedly improved.

Case 4.—Locomotor Ataxy—Typical Case—Tendon Reflex absent.

C. W., aged forty-five, married, a rivetter, was admitted to the Newcastle-on-Tyne Infirmary, under my care, on October 3, 1878, suffering from locomotor ataxy.

Previous History.—The disease has been characteristically marked for five years. He was under my care four years ago. The first symptoms were "rheumatic" pains and double vision; this was so bad that he had to close the left eye when at work. The rheumatic pains began to trouble him about six years ago. Unsteadiness of gait commenced about a year after the pains, and rapidly got worse. He has been under my care, every now and again, during the past four years. Twenty years ago he had syphilis. He has been a hard drinker, and much given to sexual excess.

Family History.—None of his relatives have suffered from nerve disorders.

Present Condition.—The gait is the most typical, the patient being unable to advance a step when his eyes are raised from the ground; the legs are thrown out wildly, and the heels come down with the characteristic stamp. The muscular force of the lower extremities is very great, the muscles being powerfully developed. There is most marked loss of co-ordination and of the muscular sense. Sensibility of all sorts (tickling, power of localising impressions, pain, temperature) is very much impaired. When the eyes are bandaged he cannot tell the position of his legs, and is unable to place his feet in any given position. He is quite unable to stand with his eyes shut, even when the feet are placed wide apart. The power of distinguishing weights is very defective. The patellar tendon reflex and skin reflex are quite absent. There is some loss of tone in the bladder. The bowels are obstinately constipated. Sexual power is much weakened. He frequently suffers from sharp, shooting pains in the lower extremities, and complains of numbness in the soles of the feet. He feels as if he were standing on something soft, but has no tight band round the abdomen. The contractility of the muscles of the lower extremities is normal to the interrupted, somewhat impaired to the constant current. The pupils are decidedly contracted; sight is good. The other special senses are normal. He is, on the whole, decidedly better than he was four years ago. At that time he could not get up from the sitting position, and could not walk a step without assistance. Now he goes about with the help of two sticks. The upper extremities are normal. There are no complications. The treatment which has seemed to be advantageous in this case is the administration of ergot of rye and iodide of potassium. He himself thinks the battery, which at one time was assiduously employed, was useful; of this I am very doubtful.

(a) Read before the Northumberland and Durham Medical Society on November 14, 1873, and before the Medico-Chirurgical Society of Edinburgh on June 4, 1879.

Case 5.—Locomotor Ataxy—No Lightning-like Pains during the first five years of the Disease—Absence of the Tendon Reflex.

X. Y., aged forty-eight, was seen by me, in consultation with my father, on March 1, 1879.

Previous History.—The patient had been a dissipated man. His illness commenced five or six years ago with unsteadiness of gait. He never had pains until this last winter. He has never suffered from rheumatism. He has not had syphilis.

Family History.—Another member of the family has suffered for twenty years past from melancholia.

Present Condition.—The gait is very characteristic. The muscular development of his lower extremities is good, the muscular force great. He complains of numbness in the feet and legs, and he cannot feel the ground properly. Tactile sensibility is somewhat impaired. Sensibility to pain, temperature, and the power of localising impressions seem almost normal. The patellar tendon reflex and the reflex actions on tickling the soles of the feet cannot be elicited. Sight is very bad, especially in the left eye; the pupils are contracted. Two years ago he could not see at all, and was said to have optic atrophy. He can now see well enough to read a newspaper with the right eye, and large print with the left. I did not examine the fundus. The patient's general health was good. There were no complications.

Westphal not only states that the patellar tendon reflex is absent in cases of locomotor ataxy, but he has shown that in some cases it is absent at an early stage before the appearance of the incoördination. Dr. Buzzard, too, has reported a case in which the early absence of the phenomenon was observed. (b) As the result of his observation, Westphal came to the conclusion that the absence of the patellar tendon reflex is a most important diagnostic of locomotor ataxy. The value of the phenomenon in this respect, although no doubt great, is probably much less than Westphal at first supposed, for—1. The phenomenon is sometimes absent even in health. 2. It is absent in many other diseases than locomotor ataxy. 3. Undoubted cases of locomotor ataxia do occur, in which it is still preserved. Cases of this sort have been observed in this country by Dr. Gowers, Dr. Clifford Allbutt, and Dr. Sawyer.

My friend Dr. Beatty Smith, of Stockton, has also published a case which presented some of the features of locomotor ataxy, but in which the patellar tendon reflex was exaggerated. Through the kindness of Dr. Smith this patient was admitted to the Newcastle-on-Tyne Infirmary under my care, and remained for some months under observation. The case is one of considerable interest. The gait at first sight closely resembled the gait of locomotor ataxy, and there was a well-marked history of the characteristic pains. In many respects, however, the case did not resemble locomotor ataxy, and after careful consideration I find myself obliged to differ from my friend's view. It is only fair, however, to Dr. Smith to say that after again examining the patient, he adheres to his published opinion. The notes of the case, which are published with Dr. Smith's kind permission, are as follows:—

Case 6.—Doubtful Case of Locomotor Ataxy—Persistence of the Patellar Tendon Reflex.

J. D., aged forty-seven, single, an engine-fitter, was admitted to the Newcastle-on-Tyne Infirmary, under my care, on September 30, 1878, complaining of difficulty in walking and of weakness in the lower extremities.

Previous History.—The weakness in the legs commenced at the beginning of last year (January, 1877), but was nothing to speak of until the cold weather set in. The weakness was always worse first thing in the morning. At the beginning of the present year (January, 1878) he became worse, and suffered for the first time from pains in the knees, right elbow, and right shoulder. The pains used to come on quite suddenly, and to last for from two to five minutes at a time. He describes these pains as being like the pain which would be caused by a knife being put into and turned round in the joint. Sometimes the pains were simply sharp shoots, lasting for a moment—"like the pain caused by the electricity which I have been getting to-day," said the patient. The pain was sometimes so severe that it made him cry out. The joints were not swollen, and there was no tenderness on pressure. The pains were generally worse at night. Walking about seemed

to relieve rather than to make them worse. He has had frequent attacks of pain since January. The knees have been chiefly affected of late. In May he experienced some difficulty in retaining his water. Calls to urinate had to be obeyed immediately. This symptom gradually got worse, until he was admitted to the Stockton Hospital in July. The bowels, which are naturally costive, have become more so. There is no difference in sexual power or sexual desire. He knows no cause for his illness, unless it be standing all day in one position and in a draught. He has been a steady man both as regards "wine and women." He says he has not had syphilis. Since July he has been under treatment in the Stockton Hospital, and has improved considerably.

The Family History is good. So far as he knows there is no tendency to nerve complaints.

Present Condition.—He is a pale man and has a somewhat worn-out appearance. He walks very badly, and required to be assisted to the ward. At first sight the gait looks as if it were the gait of locomotor ataxy. He takes short steps, throws out his feet a little, and brings down the heels first. On observing him more closely this gait is seen to be due to the fact that in walking the knees are kept stiff and that the legs are feeble. The right leg is evidently much weaker than the left, and is dragged. In walking, the eyes are never fixed on the ground in front of him or on the feet. He can walk backwards almost as well as forwards. He can also walk across the room with his eyes shut. He can stand steadily with his eyes shut, the feet being close together. There is absolutely no loss of co-ordination in the lower extremities. When lying on his back in bed, with the eyes bandaged, he can place his feet slowly and with exact precision in any given position. The power of appreciating weights is natural. Sensibility of all sorts is perfectly normal. The muscular development is fairly good; the muscular force moderate. There is no tension of the muscles nor resistance to passive flexion of the knee.

The patellar tendon reflex and the skin reflexes are exaggerated.

The electrical contractility of the muscles of the lower extremities is decidedly below par.

There is no appreciable loss of power in the upper extremities or in the muscles of the face. The tip of the tongue is turned to the right side, and the organ is tremulous. The uvula is deflected to the left. Speech is drawing, hesitating, and a little thick, resembling somewhat the speech of a general paralytic. The pupils are equal and considerably dilated. Sight is good; the optic discs are healthy. The other special senses natural. Memory is decidedly impaired. The nervous system is otherwise quite normal. Urination is now natural.

Treatment.—On September 30 he was ordered five grains of iodide of potassium thrice daily. This was gradually increased but without any apparent benefit. On October 19 half a drachm of the liquid extract of ergot was substituted.

On November 5 it was noted "he is very much improved, and can walk infinitely better than on admission. He has had no pains for three weeks, and has gained three pounds and a half in weight." On November 9 he complained of severe pain at the bottom of the spine; the face was flushed, the temperature 101° Fahr. Two days previously he had complained of pain in the right elbow, and had noticed that the slightest touch over the outer aspect of the forearm caused great pain. The skin of the part was quite natural. This hyperæsthesia has now disappeared. On January 5 he was very much better, and could walk for an hour at a time without feeling tired. On February 15 he discharged himself, saying he felt quite well and able to go home. He was accordingly discharged. He had still to some extent the peculiar gait which was present on admission. The weakness in the legs was comparatively trifling. Since November 9 he had been entirely free from pain.

(To be continued.)

THE HOWARD MEDAL.—We learn that the Statistical Society have determined to award their Howard Medal in November, 1880, for the best essay on "The Oriental Plague, in its Social, Economical, Political, and International Relations, special reference being made to the labours of Howard on the subject." They have also, we understand, decided to make a grant of £20 to the successful candidate. The essays are to be sent in on or before June 30, 1880.

CASE OF ANTISEPTIC OVARIOTOMY.

By JAMES M. BENNETT, M.D.,

Consulting Surgeon to the Liverpool Dispensaries, and Surgeon to the Liverpool Surgical Home for the Diseases of Women.

MARY B., aged forty-four years, presented herself amongst the out-patients at the Liverpool Surgical Home, on April 3, 1874. She complained of the increasing size of her abdomen, which she stated had been going on for more than four years, and that latterly it had begun to cause her great inconvenience from its bulk and weight. She was married, but never had any children. Menstruation had been regular in time and normal in quantity. She suffered from an old bronchitic cough, but her lungs and heart were otherwise healthy; kidneys sound, and there was no evidence that she suffered from any disease other than a large ovarian cystic tumour, which even at this date was not easily movable, as adhesions could be made out over a great portion of its anterior surface. It seemed to spring from the left ovary. The girth at the umbilical level was forty-one inches; one inch lower, forty-two inches and a half; from the ensiform cartilage to the umbilicus, eight inches; from the latter to the symphysis pubis, seven inches and a half; to the right ilium, nine inches and a half; and to the left, ten inches. Laterally there was mobility in the tumour, but vertically it was absent. The uterus was normal and free. The sense of fluctuation was distinct in the lower part of the tumour. On the left side its upper portion was solid to the hand, and dull upon percussion. The nature of the case was fully explained, and the difficulties and dangers of operation laid before her. She elected to follow the advice which was given at the time—viz., to wait patiently until the functions of life were interfered with—which she did for a long time. At length she described herself as a burthen and a trouble to all. Four years have elapsed since she first came under notice, her size increasing so much that she experienced great difficulty in progression. She also suffered from obstinate constipation, which medicine did not relieve. Other troublesome symptoms were, a sense of impending suffocation when in the recumbent posture, which was most distressing; together with numbness of the left thigh and leg, and a sense of downward pressure, as if the uterus or rectum would be displaced. Upon examination, on March 22, 1878, I found her size to be forty-nine inches and a half at the umbilical level; one inch lower, fifty-one inches; from ensiform cartilage to umbilicus, eight inches and a half; to pubis, seven inches and a half; to the right ilium, ten inches; and to the left, eleven inches. The tumour at this date was quite immovable; and upon examination per vaginam a large portion could be felt in Douglas's space, which, however, seemed non-adherent. The face began to assume that very pinched appearance so often observed in ovarian disease; and she now declared she would rather die than live. Upon the morning of April 6, 1878, at ten o'clock, the patient was got fully under the influence of the bichloride of methylene by Dr. A. E. Carter, who used Junker's apparatus, which, I am happy to record, quite fulfilled all the indications claimed for it by Mr. Spencer Wells, and whom I have to thank for kindly calling my attention to his valuable remarks upon anæsthetics delivered before the British Medical Association in Manchester.

In the presence of Dr. Ewing Whittle and my colleagues, Dr. Cregeen and Mr. Morrish, I proceeded to operate by making an incision between five and six inches long in the line of the linea alba, commencing a short distance below the umbilicus. Upon opening the peritoneum the cyst presented itself, but upon attempting to introduce my hand I found that the whole of the anterior surface was intimately adherent to the abdominal parietes, which required a very patient and persistent insinuation of my fingers to break up. I tapped the cyst, and withdrew 480 fluid ounces of colloid fluid, which was of a specific gravity of 1.025. I was now enabled, after tearing through several well-organised bands, to reach the fundus of the tumour, which I found to be a large solid mass. The adhesions at this point were the most difficult to overcome, especially one band, fully an inch and a half in thickness, which was so intimately attached to the pyloric extremity of the stomach, that, after repeated failures with the handle of the knife and my fingers, I carefully dissected it off, Dr. Cregeen maintaining the cyst upon the stretch whilst I held the stomach. I was

now glad to find the tumour free, and that there had been very little, if any, escape of fluid into the peritoneal cavity. The pedicle was found to be short, thick, and highly vascular. I decided to ligature, apply the thermal cautery, and return it, which I did; but it required three ligatures before I was satisfied, as, after the tying of the first two, and the free application of the cautery, a small branch was found to be spouting. Very little sponging or disturbance of the viscera was practised; but a large Koeberlé's glass drainage-tube, as improved by Dr. Bantock, was introduced into Douglas's space, and retained *in situ* by two superficial points of suture in the abdominal walls, which were brought together in the usual way with carbolised silk introduced from within outwards. The patient was now lifted into bed, and a hot-water bottle placed at her feet. The pulse was 96 before the operation, 88 immediately after it; temperature 97.8° before, 94° after. She rested fairly, and required no opiate until the following evening, when she complained of pain, which was quickly relieved by fifteen minims of liq. Battley.

The progress of the case was one of uninterrupted success—the temperature never rising higher than 101.8°, nor sinking lower than 94; the pulse never rising higher than 112. The urine was drawn by myself every four hours for the first three days, and the contents of the Bantock's tube were emptied after the first four hours. Between three and four drachms of highly-coloured serum, together with some small clots, were withdrawn by means of a syringe with rubber tubing attached. I found, however, that the working of the syringe was not satisfactory, and that it caused the patient some pain. I therefore, at the suggestion of Dr. Cregeen, introduced a small piece of rubber tubing within the glass, and, by means of an exhausting-bottle, was enabled quickly to remove the serum and clots as they came into the tube. The glass tube was removed after seventy-six hours, and an india-rubber drainage-tube introduced through it, which I allowed to remain for a further twenty-four hours. At the end of that time I removed it, and found it perfectly dry. Very little food was allowed for the first three days excepting barley-water, ice, and beef-tea; after this time stimulants in moderate quantities. The patient was out of bed on the nineteenth day, and is now convalescent. The weight of the cyst and its contents was thirty-five pounds four ounces. I may add, in conclusion, that everything was done antiseptically, thymol being the agent—one part to 500 for the spray, and one part to 1000 for instruments, ligatures, etc. No one was permitted to approach the patient unless supposed to be perfectly free from contagion. She had never been tapped. The spray, which I can highly recommend, was made by Yeates, of Dublin, and is an adaptation of Fletcher's (of Warrington) continuous action foot-bellows. It has many advantages besides its cost (which is less than half) over Professor Lister's steam apparatus.

Upon examining the tumour I found the solid portion to contain the hypertrophied ovary together with a fibrous mass. When the cyst was dilated I perceived that although at this stage it was composed of a single large cavity, still there was evidence from its multilocular shape externally, and the presence of bands of tissue running completely across it at different angles internally, that in its early life it was made up of several cysts, which ultimately became enclosed within a large enveloping one, that had diverted to itself the main supply of nutrition.

THE RAPID TREATMENT OF CLUB-FOOT.

By H. A. REEVES, F.R.C.S. Ed.,

Surgeon to the East London Children's Hospital, and to the Royal Orthopædic Hospital; Assistant-Surgeon and Teacher of Practical Surgery at the London Hospital, etc.

It is now five years since I adopted the plan of treatment in the various kinds of non-paralytic club-feet which I am about briefly to describe. My first case treated by this method was a patient at the East London Hospital for Children, when this institution was situated at Ratcliff Cross. The method is applicable to the large majority of congenital or acquired deformities of the feet; but the milder cases—those in which slight pressure will bring the foot into the normal position, and in which the rebound on relaxing the grasp is very slight—can, with patience, be cured without operation.

The patient being held by a nurse or assistant, and the foot being in the right position, the tendons of the tibialis posticus and flexor longus digitorum are first divided, and a pad and strip of adhesive plaster applied. Then the tendon of the tibialis anticus is divided, and a pad put on. Immediately after the tenotomies, the foot is forcibly but steadily brought into its right position, and kept there by an assistant while a flannel bandage is put on. Over this is put a plaster-of-Paris bandage, then a thin layer of plaster paste, and finally another bandage and more paste. Sometimes a third plaster bandage is necessary, but in infants and children it may be dispensed with. Of course, the bandages must not be too tightly applied, and it is well to protect the bony prominences with a little cotton-wool. The foot is held in position until the plaster has set; and instructions are given to the parents to bring the child at once to be seen, or they are told how to loosen or remove the bandage should the toes become cold and purple.

If the inner part of the plantar fascia be tense and interfere with the straightening of the foot, I divide it first, forcibly stretch it, and at once thereafter divide the tibials and flexor longus digitorum. I adopt this plan, which differs from that usually recommended, so that the uncut tendons may resist me, and thus enable the anterior part of the foot to be more successfully abducted. In most instances I leave the foot in the plaster case for a week; but in the more severe cases ten days to a fortnight are necessary. At the expiration of this time the bandage is removed, and the foot will be seen to have assumed its proper position. It is then well worked (*i.e.*, abducted), afterwards the tendo Achillis is divided, and the heel firmly but gently brought down. The pad and bandages are put on while the foot is held in the corrected position, the toes being left free, but the heel covered. Another week or ten days usually suffices by this method to bring the deformed foot into its normal position, and then the bandage is removed by cutting it in the mid-line, along the anterior aspect of the foot and leg. The foot is then well worked in the desired directions and the leg-muscles shampooed. The mother sees how this is done, so that she or her husband may occasionally do it at home, and the child is brought once a week to be seen by me.

If the child be old enough to walk, it is measured for a proper boot and support at the commencement of the treatment, and in most cases in three weeks after the first operation it is allowed to walk. The foot is well worked night and morning, and the second plaster bandage is put on at bedtime and retained in position by an ordinary roller. This is ordered to be continued for several weeks in order to prevent a relapse.

As a night instrument the universal Scarpa described in the *Medical Times and Gazette* of October 12, 1878, is very serviceable, and as it is effectual and inexpensive it is an excellent substitute for the plaster bandage, which requires to be occasionally re-applied.

I may state that except in very severe cases an anæsthetic is unnecessary, but in private practice, should it be desired to prevent the child crying, it may be given.

I have now had considerable experience in this as well as in the ordinary modes of treating club-feet, and so far have never had a relapse if the instructions have been properly carried out. I can therefore confidently recommend it to surgeons interested in such matters.

There are some few cases of deformed feet in infants which can be successfully treated by manipulations and the application of the plaster bandage as used by the German surgeons and modified by Dr. Alexander Ogston of Aberdeen. But I am quite sure that these cases are very exceptional, as I have met with several disappointments. One great objection is the length of time occupied in the treatment, and another is the probability of relapse. Both these are admitted in Dr. Ogston's excellent paper. Experience has taught me and other orthopædic surgeons to disbelieve in methods which profess to succeed without performing tenotomy. Sooner or later, even in ordinarily severe cases, the tendons have to be divided, after valuable time has been lost; and long practice justifies me in saying that an essential and initial point is the preliminary tenotomy. But this is far from all that is required; frequent manipulations, shampooing the leg-muscles, repeated voluntary movements of the foot (in those old enough), and the regular use of the night instrument or bandage, are absolutely necessary in order to perfect the cure.

It is our lot at the Royal Orthopædic Hospital to see many relapsed cases which have been operated on elsewhere; and while I have no wish to be unfair or hypercritical, I may do some service by pointing out the causes of these too frequent relapses. In several cases the tendons have been transfixed, and therefore only partially divided; in others, only one of the two tendons behind the inner malleolus has been divided; but I think the most frequent cause is the neglect of the important points, that subsequent frequent manipulations and the use of night retentive apparatus are the main elements of success. Surgeons must not be satisfied with tenotomy and splints, or apparatus, but must see the case at least once a week for several weeks, and with their own hands train the limb in the right direction, and for ever prevent a relapse. Granted that most of the limb-structures are involved in the deformity, abundant experience has shown that tenotomy is necessary in nearly all cases; and if this be combined with immediate forcible rectification of the foot, and the other methods just described, the surgeon can make sure of curing the deformity speedily, and of avoiding relapses. Moreover, he will have the satisfaction of bringing the foot into its correct position in about half the time occupied by the present usual methods.

I have operated on a large number of cases by the method detailed, and have at present, at the London Hospital, several cases undergoing treatment. A few words as to excision of some of the tarsal bones in severe and neglected cases. I may at once state that I have never seen a case which would have justified me in adopting so severe a measure. At the Royal Orthopædic Hospital we see a very large number of cases of all degrees of severity, and it has been our pleasure to remedy many of the worst cases of club-feet by simple tenotomy, repeated manipulations, and proper appliances, and patience. I would not be understood to say that excision of some of the tarsal bones is never justifiable, but I do assert that the worst cases may be rectified without such a severe procedure, and that the resulting foot is more serviceable. Among the poor, if time be—as it usually is—a great object, there is then an excuse for the excision method.

The advantages of the method proposed are briefly the following:—1. The results are rapid and satisfactory. 2. Expensive apparatus is unnecessary. 3. The muscles, joints, etc., are worked and exercised, and not allowed to atrophy or become temporarily fixed, as in the German method; and, 4. The patient, in ordinary cases, may be allowed to use the foot or to walk in three weeks after the first tenotomy.

THE METROPOLITAN WATER-SUPPLY FOR SEPTEMBER, 1878.—The report of the Metropolitan Water Examiners for the month of September last shows that the state of the water in the Thames at Hampton, Molesey, and Sunbury, where the in-takes of several of the companies are situate, was good from the 1st to the 14th of the month; it then became slightly turbid, and remained in that condition until the 17th, when it improved and fined down, and was good until the 24th, when it became bad, and remained so for the rest of the month. The water in the river Lea was generally good during the month. From the details of the proceedings of the various companies it is seen that they are all taking steps for giving constant supply under the provisions of the Metropolis Water Act, 1871, in a portion of their districts, except the Southwark and Vauxhall and Grand Junction Companies. The Act provides power to compel the companies to give constant supply, as and when the public authorities may see fit to demand it; but no company is compelled to give such constant supply if it can be shown by them that, after the expiration of two months from the time of service of the requisition, more than one-fifth of the premises in such district are not provided with the proper fittings, in accordance with the regulations made under the above-mentioned Act. Dr. Frankland reports that the Thames water delivered during September by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies, was rather less polluted by organic matters than in the previous month, and all the companies filtered it efficiently. The Lea water distributed during the same period by the East London Company was no better than Thames water, but that sent out by the New River Company was of superior quality. The supply was efficiently filtered by both companies.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

LONDON HOSPITAL.

FOUR CASES OF EPITHELIOMA.

(Under the care of Mr. ADAMS—Cases 1, 2, 3; and Mr. RIVINGTON—Case 4.)

Case 1.—*Epithelioma of Ear.*

THOMAS P., aged sixty-seven years, was admitted on April 26, 1879. His previous history was very good. He had been a sailor for about thirty years, had never any chest affection or syphilitic disease, and was married and the father of nine children. About two years ago he noticed that a small wart was growing on the back of the lobe of the right ear; until then he had never had any pain or sore place in that quarter. He then went to a doctor, who touched the part with nitrate of silver and told him the growth was a simple wart. The part gradually got worse, and an ulcer formed discharging dirty pus; it became the seat of constant pain, described as being shooting and burning in character. He began also to lose flesh, and his appetite failed.

On admission the whole of the right external ear was found to be congested, red, somewhat thickened and hard. An ulcer was situated on the back of the upper part of the pinna, covered with unhealthy sanious pus, and with a hard but not deeply extending base. The edges of the ulcer were irregular, and the growth extended from the edge of the ear to the junction of the cartilage with the external bone. Patient complained that he could not sleep at night on account of the pain, and that the parts were equally tender and painful by day. His sense of hearing was not at all affected. There were no evidences of severe constitutional disturbance; no glands were found to be enlarged, the tongue was clean and moist, the appetite was fair, the bowels rather confined. Patient remained in the hospital without any active local treatment being undertaken until May 14, when Mr. Adams removed the whole of the external ear with the exception of the lobule, and so completely got rid of the new growth. The parts healed up well under simple dressing, and the patient was discharged on May 24.

Case 2.—*Epithelioma of the Back.*

MARY P., aged twenty-eight years, a servant, was admitted on July 25, 1879. She stated that about six years before, or perhaps at an earlier date, a wart or raised pimple appeared in the place which is now the centre of the sore described below. When this wart was knocked it bled, and two or three years after its first appearance it began to ulcerate. A sister of her mother's was said to have died of "cancer of the womb," but there was not otherwise any history of malignant disease in her family. Her mother had a large number of moles or warts on her body. On her admission the following notes of her condition were taken:—"There is a deep, ulcerated-looking surface situated over the right scapula; the growth is about five inches long and three inches wide; it extends along the vertebral border of the scapula and towards the body of that bone. The ulcerating mass is surrounded by an indurated border, and the skin in the direction of and as far as the axilla is very hard. Situated in the axilla there is an enlarged lymphatic gland about the size of a pigeon's egg. The parts are very painful. Patient's appetite is bad; and she is kept awake a good deal at night." The wound was dressed with oxide of zinc, added to which was some morphia, and opium was administered at night to secure rest. No operative procedure was proposed, and patient left the hospital on August 1 to attend as an out-patient. The following additional note of her condition was taken on her departure:—"The appearance of the ulcer is very characteristic of epithelioma. Its edge is indurated, and its base is especially adherent to the scapula, the movements of that bone being diminished in a very marked degree, so that it is only with great difficulty it can be made to alter its position. Patient uses her shoulder-joint and spine freely. She is losing flesh, looks much older than her actual age, and is very anæmic."

Case 3.—*Epithelioma of the Leg.*

SIMON S., a tailor, aged fifty-eight years, was admitted on July 19. He stated that he used formerly to suffer with varicose veins of the legs, and that eight or nine years ago one of the veins burst and an ulcer formed in its site. This ulcer enlarged to a diameter of two or three inches, then healed; broke down again; and this alternate healing and opening up of the wound continued until within three months of admission. About May, 1879, patient noticed a fresh growth in the old situation, which increased in size rapidly, but was accompanied by no pain. He stated that he had always enjoyed good health, that he never had syphilis, and no history of malignant disease in his family could be elicited.

On admission the following notes of the condition of the limb were taken:—"On examining the left leg there is found to be an oval cauliflower-like excrescence, about three inches and a half in length, two inches and a half in breadth, and raised to about one-half or two-thirds of an inch above the surrounding parts. Around this growth there is a depression or fossa, and the tissues all round, and stretching upwards as far as the knee, and downwards to the ankle, are indurated and cicatrised. The mass is yellowish generally, with here and there an appearance of red granulations. The yellowish aspect is due to accumulated epithelial products. No discharge of any kind comes from it; patient states that 'it is always dry.' The red granulations represent such parts as are free from epithelium. Some parts of the mass are more papular and lobulated than others, especially the central and thicker part. The mass feels soft and fleshy, and is certainly not indurated. There is no œdema of the foot, although the skin above the growth is so tightly bound down that there might well be impediment to the return of blood. The scar-tissue (the seat of old ulcers) extends from three inches below the knee to the ankle, and involves principally the inner side of the limb. Below the groin, about the femoral opening, is a single large, hard, but movable gland, about three-quarters by half an inch in size, and somewhat flattened."

July 26.—The scars above the original growth are showing signs of the same changes as those which preceded the growth of the larger mass.

28th.—The scars now show a yellowish mouldy colour, slightly raised above the surface. There is still no discharge.

On August 5 patient left the hospital, as no operation was deemed advisable. The mass was increasing in size and becoming more "cauliflower" in aspect. Its other characters remained unchanged, and there was no appearance of any ulcerative process.

Case 4.—*Epithelioma of the Leg.*

THOMAS K., a printer, aged seventy-four, was admitted on May 19. Patient's memory was very indifferent, and his account of himself was not very reliable. There was no family history of cancer. His mother died at the age of eighty, and his father at the age of forty-five, after a very dissipated life. Patient himself was married, and had ten children, two only of whom had survived. He had lived a very steady life, and there was no reason to suspect any syphilitic taint. His wife stated that about two years before he had received a blow on the affected leg, which had grazed the skin and left a wound in the site of the present growth. Patient himself stated that, as far as he could recollect, until three months before admission there was nothing the matter with his leg beyond a brown mark, which he thought he had scratched; thereafter a mulberry-like growth appeared, which increased in size. On admission there was a fungous-looking growth, circular in shape, about an inch and a half in diameter, situated on the crest of the tibia in the upper part of its middle third. This growth was freely movable over the subjacent bone; its edges were somewhat indurated and raised above the surrounding parts; its centre showed a tendency to break down, and secreted a quantity of muco-purulent fluid. Its base had a peculiar striated appearance. As the growth continued to increase in all its dimensions while in the hospital, Mr. Rivington on June 7 removed it by dissection from the subjacent parts. It was found to be non-adherent to the deep fasciæ. The subsequent healing of the wound was satisfactory, though somewhat slow. There was no return of the growth, and patient left the hospital on August 12, to attend occasionally as an out-patient.

and no lawyers, no politicians, and no paid physicians or surgeons; and of course no paupers. But there will be marvellous painters and marvellous architects; and the settlers of Salut-land will have been made familiar in their own land with the elementary truths relating to public health. The women will all dress becomingly and hygienically, and the children will be singing instead of shrieking in the streets. There will be no kings, or princes, or permanent magistrates. But science will be sovereign, and the head of all the sciences will be the science of health, which "includes all the rest." We regret that our space will not now allow us to give Dr. Richardson's poem at length; but we must admit that he insinuates here and there many a piece of sound practical sanitary instruction; and we may add that this wonderful people, in their wonderful land, are not to be found till the year 2050.

THE REPORT OF THE COMMISSIONERS OF LUNACY.

WE noticed, a few weeks ago (at page 267 of the present volume), the issue of the annual report of the Commissioners in Lunacy, and we then alluded to the opinions expressed by the Commissioners regarding the proposed consolidation and amendment of the Lunacy Acts, and to their remarks upon the recommendations of the Select Committee of the House of Commons which reported upon the subject of Lunacy Reform in 1878. But we have hitherto been unable to notice the most important points in the statistical portions of the Commissioners' Report.

The total number of "registered lunatics, idiots, and persons of unsound mind" in England and Wales on January 1, 1879, amounting in the gross to 69,885, showed once more a considerable increase over the number recorded twelve months previously. We are, however, glad to find that the increment is not nearly so large as we have had to announce in recent years. Thus, comparing the present with the former report, we find that the latter showed an increase of 1902, while the present report shows an increase of only 1347. This latter number is, moreover, not only considerably below the average annual increase of the previous ten years—viz., 1753—but it is also absolutely smaller than the increase recorded in any one of these ten years with the single exception of the year 1876. This result is, therefore, so far a satisfactory one in itself, and especially so in view of the widespread alarm during recent years as to the alleged rapid increase of lunacy in our midst.

Last year we examined in detail and at some length (vol. ii. 1878, pages 382-84) the evidence furnished by the Commissioners' Report regarding this apparent increase of lunacy, and our examination persuaded us that the increase was more apparent than real. As to the constantly increasing number of persons registered as lunatics, there could of course be no doubt, after an inspection of the Commissioners' annual returns; but we pointed out several reasons for believing that many persons were now registered as lunatics who would not formerly have been classed as such. In particular, we showed that by far the largest part of the increment arose from the ever-increasing numbers of the *pauper* lunatics, and that as a matter of fact the number of *private* lunatics had lately shown a tendency to decrease, not absolutely, but relatively, to the population.

We are not going to trouble our readers with a re-examination of the matter on the present occasion, or with a re-enumeration of the considerations which help to explain this constant and rapid increase in the number of pauper lunatics. Happily, the returns we have already quoted render an investigation of the matter a question of less alarming interest than was the case in recent years. We may, however, be

allowed to point out that the details of the present year again support the main conclusions we came to, viz., that for special reasons there is a constant tendency that an ever-increasing number of dotard and troublesome paupers should be classed and treated as lunatics, but that, recently, there is little or no evidence of an appreciable increase in the number of lunatics, relatively to the population, among the non-pauper class.

Of the total 69,885 "registered lunatics, idiots, and persons of unsound mind" on January 1, 1879, no fewer than 62,107 were classed as paupers, only 7778 being private patients. These subdivisions show, as compared with the numbers on January 1, 1878, an increment of 1261 in the pauper class, and of 86 in the non-pauper section, or, as we have already said, 1347 over the whole number. Now, while the average total increase for the last ten years was 1753, that in the pauper class was 1588, and in the non-pauper class 165. While, therefore, the returns this year give an increase considerably under the average in each of the two sections, the increase in the non-pauper section is only about half what might have been expected. This latter relative diminution is the more encouraging when it is remembered, as we pointed out last autumn, that during the last half-dozen years, although the absolute number of non-pauper lunatics has gone on slightly increasing, the *ratio* of private lunatics to the population has been either stationary or has even shown a small decline. Thus the ratio of this class per 10,000 of population for the last five years has been (beginning with 1875) 3·09, 3·10, 3·09, 3·09, and still for the present year 3·09. On the other hand, the *ratio* of *pauper* lunatics to the population has gone on increasing by greater or smaller increments, never in any two successive years remaining stationary or showing a decline. For every 10,000 of population there were at the beginning of the present year about 25 (24·68) pauper lunatics. This is a slight increase on the ratio of last year (24·48), indicating that even the unusually small increase recorded this year is larger than can be accounted for simply by the natural increase of population. We have little doubt, however, but that the causes we have at present only hinted at may be credited with much of this constant augmentation to the pauper class of lunatics, without our being obliged to suppose that there is really any considerable increase of actual lunacy among our pauper population. This much, at any rate, is as certain as statistics can make any such statement—that there has not within the last six years been any appreciable increase of lunacy among the non-pauper classes of the community.

THE CONDITION OF THE RURAL SANITARY DISTRICT OF WELLS.

A LONG correspondence on the unsatisfactory sanitary condition of the Wells Rural Sanitary District, as regarded its drainage and water-supply, finally decided the Local Government Board to institute a complete inquiry on the subject, and for this purpose Mr. T. C. Langdon was despatched to the locality in May last. The Sanitary Authority is the Wells Board of Guardians, which meets once a fortnight; and the Medical Officer of Health, who resides in Wells, undertakes similar duties for the urban districts of Wells, Glastonbury, and Street. It should, however, be remarked that he has retired from private practice. There is one inspector of nuisances for the Rural District, who receives a salary of £100 per annum. He resides at Glastonbury, and is expected to go on foot (since his salary does not admit of his keeping a horse) all through the fourteen parishes of the District, which extend over an area of about sixteen miles from north to south, and fifteen miles from east to west. Moreover,

these officers are not required by the Sanitary Authority to attend their meetings, and have therefore no opportunity of talking over with them any of the subjects brought under their consideration. Dairy farming is the principal occupation of the population. Mr. Langdon, in the course of his inquiries, made a minute inspection of the different parishes of the district; the details are scarcely of sufficient interest to require enumeration. In most instances the water-supply was found to be lamentably defective, and insufficiently protected against surface-drainage and pollution from other sources. At Baltonsborough, with a population of 743 inhabitants, Mr. Langdon found "that some of the houses are supplied from the Brue, a slowly running turbid stream, which receives impurities from privies and farm-yards. I observed a dipping-place in the churchyard, along one side of which the stream passes, draining it, and at a short distance above it receives impurities such as I have named. By far the greater number of persons drink from 'pools'; these are little ponds of stagnant water dug out in garden, yard, or orchard. These pools receive rain, surface-drainage (sometimes from roads), and soakage from the adjoining soil. Their contents are always turbid after rain; some of them become dry in summer, some offensive. One, I was told, became 'as green as a leek,' another 'of the colour of coffee.' I dipped out a glass of water from a pool at West Pennard which was yellow and stinking, and contained a large number of young newts. Some of these pools are used by the inhabitants in common with the ducks and cattle, and some are so near to privies and pigsties that they cannot fail to be most impure. It seems scarcely possible to exaggerate the danger of such a supply, but the guardians of these parishes complain, in a memorial addressed to the Local Government Board, of such exaggeration by the Medical Officer of Health, for having drawn the attention of the Sanitary Authority to this subject." About 1875 the Sanitary Authority began to consider the best means of providing a pure supply of water for these parishes, and consulted Mr. Bailey Denton on the subject. The scheme which he proposed was, however, abandoned, partly on the score of cost, and partly from the fear of opposition from those who claim a right to the water which flows from the source selected by Mr. Denton. In nearly all the villages inspected the arrangements for the disposal of excrement were of the most primitive kind; the privies in many cases emptying into ditches, open gutters running close to the houses, or the rivers in the neighbourhood. These privies were often in a lamentable condition, and in one hamlet visited only one privy was provided for seven cottages. Mr. Langdon sums up the result of his inspection in a few words: he finds that the water-supply is in some portions of the district much contaminated, and in others so circumstanced that it is liable to pollution by means of excremental and surface soakage. Although there is in many places an abundance of water, yet it is often not available for the purposes of the population, either because it is allowed to run to waste, or is not brought within reasonable reach of their houses. Where springs are used they are not sufficiently protected and not properly supervised. Very generally the means of sewerage and drainage are defective. The privies generally are faulty in point of construction, and the cause of nuisance, owing to the large accumulation of human excreta, and to their contents often passing into open ditches in the vicinity of dwellings and public highways. Whilst the annual mortality for the whole Rural District during the past three years has been 14 per 1000 living, yet it was as high as 24 per 1000 in Dinder, and 23 and 20 in Rodney Stoke and Westbury respectively. The past history of the District shows that in connexion with the conditions detailed in this report, preventable diseases have

been widely prevalent, and although they have lately been much less in amount, yet so long as the conditions referred to remain in existence there will always be danger of recurring outbreaks of such diseases. The Sanitary Authority is, moreover, without any means for the proper isolation of persons suffering from infectious diseases. The Sanitary Authority cannot, in fact, be said to have adopted those measures which would lead to a permanent improvement in the sanitary condition of the District; and the marked improvement which has followed the action of the Sanitary Authority in the neighbouring district of Glastonbury affords an obvious example of what may be effected by the adoption of such sanitary measures as those referred to in this report. Mr. Langdon has appended certain "recommendations" for the adoption of the Sanitary Authority of the Wells Rural District, based upon the various shortcomings noted by him in his careful inspection of the neighbourhood.

THE WEEK.

TOPICS OF THE DAY.

A CORRESPONDENT of the *Times* has addressed a letter to that journal, which, in the present unsatisfactory condition of the Army Medical Service, will be read with some interest. He says:—"Sitting at a recent public dinner, given to do honour to a military hero, I counted around me seventeen medical men, many of whom wore the Queen's uniform, whilst several of the others had previously done so. The Army, Navy, and Auxiliary Forces, given as a toast, was duly honoured, and in the excellent speeches which it called forth, praise was given to those to whom honour is due—even down to the lady nurses of the hospital,—but not one word of commendation was bestowed, or even mention made, of an important branch of the public service, which seems ever to be kept in the shady background—I mean the medical public service. How can the country expect first-class men of a liberal profession to enter the Army or Navy, or give their gratuitous services as volunteers, when they are practically ignored on all public occasions? Are they less brave, or less exposed to danger than their combatant brethren? I myself answer this question by pointing to the death of the Residency Surgeon at Cabul, and the noble conduct of Surgeon Reynolds at Rorke's Drift."

At the Clerkenwell Police-court, last week, Walton Tucker, of Albion-street, King's-cross, was summoned by the inspector of nuisances for the parish of St. Pancras for having, on July 24 last, wilfully exposed his son, then suffering from scarlet fever, without having taken the proper precautions against spreading the said disorder. Mr. Ricketts prosecuted on behalf of the St. Pancras Vestry, and stated that on the day mentioned the defendant and his wife took their child to the University College Hospital, where he was examined by a medical officer, who stated that he was suffering from scarlet fever, and that he would have to be sent to the Fever Hospital. The defendant refused to have his child sent there, but carried it himself wrapped in a blanket, and declined to avail himself of the ambulance for its conveyance to the Fever Hospital. The child was conveyed in this condition from the Gower-street Station, on the Metropolitan Railway, to King's-cross. The child had since died. It was not the wish of the Vestry, in consequence of the death of the child, that the defendant should be hardly dealt with, but they could not in the interest of the public allow the case to be kept from the magistrate. The defendant said that he understood when he removed his child that it was only suffering from "symptoms" of scarlet fever. The magistrate remarked that the defendant had acted very recklessly, and he would have to pay 40s. and 12s. costs, or in default be imprisoned for twenty-one days.

The Warwick Board of Guardians and the Local Government Board are at issue on the question of the boarding-out of orphan pauper children with foster-parents. The auditor having reported that the proper regulations were not observed, the Local Government Board addressed an admonitory letter to the Guardians, in which they reminded them that they consider the periodical visiting of the children by the union medical officer and the relieving officer so essential for their safety that in view of their public duty they cannot dispense with such visits under any circumstances. The Guardians, at their next weekly meeting, adopted a resolution declaring the visits of the officers named as calculated, in rural districts, to entirely frustrate the object of boarding children out. Apart from the unnecessary expense, they consider such periodical visits will stamp the children as paupers, prevent their association with others, and also cause respectable persons to refuse to receive them into their families. The boarding-out of pauper children has been successfully carried on for nearly seven years by the Warwick Guardians, who were one of the first boards to adopt the system.

At an inquiry which was held at Guy's Hospital last week, before Mr. Payne, the coroner, concerning the death of a boy, aged five years, who fatally scalded himself while pouring out some hot coffee, the father complained that his son had been subjected to ill-treatment whilst in the Hospital. When the witness and his wife went to see the child, he cried and said that the nurse had hit him. The mother deposed that she had given one of the nurses a fee to look after the child; but when she visited the Hospital she found that his extremities were very cold. Ultimately a verdict of "Accidental death" was returned, the jury adding a rider calling the attention of the Hospital authorities to the system of the nurses requiring "fees," with the object of having it abolished. In reference to this subject, Dr. Steele, the superintendent of the Hospital, has addressed a letter to the papers, in which he explains that the attendants of the establishment (as in all hospitals) are forbidden to receive fees from patients or their friends; but, as he points out, the mistaken notions of the public often render this prohibition nugatory, and when, as in this instance, discovery follows, the nurse loses her situation, and the Hospital is deprived of the services of an otherwise valuable attendant.

At the request of the Committee of Management of the General Lying-in Hospital, York-road, Lambeth, Surgeon-Major De Chaumont, Professor of Hygiene at Netley, nearly twelve months ago reported on the state of the building, which was not in a satisfactory condition, and the recommendations contained in his report, and other alterations, have recently been completed. The Hospital, which had been entirely closed for the reception of in-patients, was re-opened on Monday last. Amongst the improvements carried out it may be mentioned that the system of ventilation has been entirely changed. At the floor level of the wards, on the inner surface of the walls and opposite the outside air-bricks, coned air-bricks of wood have been inserted. Owing to the conical shape of the perforations, the diameter of each boring being greatest on the surface of the brick inside the room, the air enters freely without causing any perceptible draught. In the winter this current of air, coming in contact with the hot water pipes, will be warmed as it enters. Assisting air-inlets are also placed at the ceiling level, whilst the outlets for vitiated air are valves opening into the flues and shafts direct from the ceilings to the outer air. In the lying-in wards the windows are made in horizontal sections, which can all be opened at the same moment by the turning of a rod, so that the ward can be flushed with air instan-

taneously. The floors of the wards have been planed down, and the surface of the wood has been dressed with a coating of paraffin, to prevent the absorption of anything deleterious, and the walls and ceilings have been covered with a washable paint. The disinfection of clothes and bedding has been provided for by the erection in the yard of one of Frazer Brothers' disinfecting furnaces, to which the articles can be lowered by a shoot placed outside the wall of the building. Mr. Lister, Consulting Surgeon to the Hospital, has expressed his satisfaction with the arrangements which have been made in the new building to guard against outbreaks of puerperal fever, a disease which he states to have been practically banished from some of the great hospitals abroad.

The Metropolitan Board of Works, at their last weekly meeting, had under consideration the powers conferred upon the auditor of accounts to determine the lawfulness of the Board's actions, and it was moved that application to Parliament be made to settle the difficulty. The introducer of the motion thought that the auditor assumed a power which was not given to him, and that there was no authorisation for him to govern the policy of the Board, but merely to ascertain the correctness of the details of expenditure. Mr. Fowler, in seconding the motion, said that although he was not one of the members who agreed to the expenditure on the Water Bill, he thought that a Board selected to perform such onerous duties ought not to be at the mercy of an auditor, and that they should have a fair hearing before a competent tribunal. Mr. Runtz contended that the Board were within their powers in dealing with the water question, and that if they had been able to appeal to a superior court they would have secured a decision in their favour. He thought that what had occurred was a great calamity, since they were now shut out from getting the control of the water-supply of the metropolis into the hands of a representative body. He hoped that the matter would be referred to the Works Committee to consider what course should be taken. Eventually the first paragraph of the resolution—viz., "That the authority of the Government auditor to limit the jurisdiction of the Board by disallowing expenditure, without such disallowance being subject to an appeal to a superior court, is inconsistent with the purpose of the several Metropolitan Acts under which the Board exercises authority,"—was agreed to.

We are glad to see that Dr. Wilks has been appointed Physician to the Duke and Duchess of Connaught, the post being vacant by the lamented death of Dr. Murchison. No more worthy successor could be found to such a talented predecessor.

THE HARVEIAN SOCIETY.

On Friday, October 17, the President, H. C. Stewart, Esq., in the chair, Mr. Alderson exhibited a specimen of greatly enlarged heart. The patient had been a young man, a cab-driver, who drove from Cambridge to London in one day within a week of his death. He had been the subject of recognised heart-disease. A double mitral murmur had been heard in life; and on the post-mortem examination the mitral orifice was found narrowed, and also rigid, so as to permit of regurgitation. Dr. Milner Fothergill read a paper on "The Immediate and Permanent Treatment of Disease." He pointed how, in many cases, the treatment which gives immediate relief is not that to be continued in the permanent interests of the patient. He instanced first the free use of opium in the hacking cough of phthisis, and in chronic bronchitis, which gave immediate relief, but did harm eventually. Then in the diarrhoea due to impacted masses in the rectum, astringent mixtures might give

immediate relief, but were not curative, while removal of the masses was. So too in neuralgia the injection of morphia eased the pain for the time, but if continued, was more likely to confirm it than to cure it. Likewise in dyspepsia of reflex origin, it was all very well to give the ordinary mixture to relieve it, but its cure depended upon the removal of the exciting cause. In gout, too, the application of cold, or of leeches, gave instant relief; but he quoted Garrod in illustration of the evil consequences which follow such treatment. But of all instances of the conflict betwixt the present and the permanent treatment of disease, that furnished by endocarditis was, he said, the most striking. It was the rule to give tonics as soon as possible, and to get the patient up; but, he contended, the proper plan of treatment is to keep the patient flat in bed for some days after all evidence of active mischief has passed away. The growth of connective tissue in the valve-curtains, which is lighted up by the inflammatory storm that passes over the endocardium, persists some time after the endocarditis itself is over; and it is the mutilation, caused by the contraction of the neoplasm, which we have chiefly to dread. Consequently, the true line of practice is to reduce the strain upon the inflamed valve-curtains by complete rest and the administration of agents which lower the blood-pressure within the heart and arteries. The more the connective tissue growth could be limited at the outset, the less the future mutilation of the valves. A few days in bed are nothing compared to future valvular disease.

THE MEDICAL REGISTER.

In our advertising columns this week will be found some very important notices on the subject of medical registration, which we commend to the careful attention of our readers. The notices refer to registration in the first instance, and to the necessity, imposed by Section 14 of the Medical Act, of keeping the Registrar advised of any change of address. If registered practitioners who have changed their residence do not at once send notice of the change to the Registrar they are liable to have their names erased from the Medical Register, by which they lose the right of holding certain appointments, of signing valid certificates, and of recovering in any court of law charges for professional attendance and for the cost of any medicines or other medical or surgical appliances supplied by them to their patients. The present zealous Registrar does all he can to obtain the correct addresses of all registered practitioners, but from the want of knowledge that might easily enough be sent to him on a post-card, he is often obliged by the Act to erase names from the Register.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS, IRELAND.

ELSEWHERE will be found the rules and regulations connected with the new degree of Member which this College by recently acquired powers is now empowered to grant. Heretofore the two grades in the College have been those of Fellow and Licentiate, the latter claiming by right of their diploma the title of Doctor. For some time, however, it has now been acknowledged that such a title is purely conventional and honorary, though seldom refused. A similar kind of step was taken many years ago by the Royal College of Physicians of London, but this was most sturdily opposed by some of the most distinguished licentiates of the time, who to the day of their death remained "Extra Licentiates," and we fancy there are still some of these on the College list. The immediate effect of all this is to reduce the value of the licence, but it greatly adds to the value of the other College qualifications. Our hope is that the examinations for the licence will not be on that account relaxed.

THE ROYAL COLLEGE OF SURGEONS.

At the quarterly meeting of the Council of the Royal College of Surgeons of England, held on the 16th inst., Mr. Hancock brought forward the important motion which we mentioned last week, and the Council agreed to the preamble and the first and second questions—viz., "That, in view of the little prospect which now exists of any immediate medical legislation, a committee be appointed to consider the following questions, and to report thereon to the Council, viz.:— 1. The necessary arrangements to be made for the institution of examinations in chemistry, materia medica, pharmacy, and midwifery, to be passed by all candidates (not otherwise qualified in these subjects) for the Membership and Fellowship of the College. 2. To advise the Council as to the degrees, diplomas, or certificates which should be accepted as exempting candidates from the necessity of passing the examinations in these subjects." The committee to consider and report upon these questions is to be appointed at the next Council meeting. But the Council adjourned *sine die* the consideration of Mr. Hancock's third and fourth questions—viz., (3) the desirability and the practicability of effecting a voluntary association between the Royal College of Physicians, the Society of Apothecaries, and this College in the establishment of conjoint examinations, comprising all the subjects required for the practice of medicine, surgery, and midwifery; (4) and that, before reporting to the Council, the committee be authorised to enter into such negotiations as they may think proper with the authorities of the Royal College of Physicians and the Society of Apothecaries, for carrying out the proposed association between the three licensing bodies. We are glad that the College of Surgeons have taken steps to try and perfect their examinations, and set their house in order, without any longer waiting for a new Bill, or for any decided action on the part of the General Medical Council, but we regret they have not gone further in the direction indicated by Mr. Hancock's last propositions. We will hope, however, that the College of Physicians, if they do not care, or dare, to attempt some combination for examination purposes with the sister College, will boldly act on the power they are believed to possess, and issue, on their own authority, a diploma qualifying its possessors to practise medicine, surgery, and midwifery. Mr. Simon's motion, "That in the rules relating to the formation of the Board of Examiners in Anatomy and Physiology, the rule which restricts the appointment to persons who are Fellows of the College be rescinded," was rejected by a large majority; which must be taken to mean that the Council consider that there cannot be any difficulty in well filling the appointments from among the Fellows of the College without inviting candidates not affiliated to it as Fellows or Members. The consideration of Mr. Holmes' motion—"That the question of altering the curriculum with regard to Physiology, in accordance with the alteration recently made in the Primary Examination, be referred to the Committee on Examinations in Anatomy and Physiology," was postponed. Dr. W. H. Dickinson was elected as Examiner in Medicine in place of Dr. Sieveking, who has resigned the appointment; and Mr. John Wood, F.R.S., was elected to fill the vacancy in the Court of Examiners created by the resignation of Mr. Erichsen, F.R.S.

THE HEALTH OF THE ST. GILES' DISTRICT.

THE annual reports of the various medical officers of health for the different metropolitan districts are almost unanimous in their testimony that the year 1878 was by no means an unfavourable one in London, when regarded from a sanitary point of view. Thus, Mr. S. R. Lovett, the Medical Officer for the St. Giles' District, in presenting his report for the year in question, commences by observing that it is remark-

able as chronicling the healthiest period in that district on record. The number of births registered in the district during the year was 1446, equal to a rate of 27 per 1000; and the number of deaths was 1165, which gives a death-rate of 21·8 per 1000. This is the lowest death-rate in St. Giles' District of which there is any authentic record; the average death-rate for the ten years, 1868-1877, was 24·42 per 1000. No deaths were registered from small-pox in the district during the whole year, but 13 parishioners died from it in the hospitals of the Metropolitan Asylums District Board; these, with 4 for 1876, and 14 for 1877, make up a total of 31 deaths for St. Giles' District, from the commencement of the epidemic in 1876 to the end of 1878—a fatality comparatively light, considering the density of the population in many parts of the district. Concerning the question of hospital accommodation for non-pauper cases, Mr. Lovett concurs in the opinion expressed by several of the district boards and vestries, that the most practical method of overcoming the difficulty would be to throw upon the Metropolitan Asylums Board the responsibility of providing such accommodation, seeing that they already possess great advantages for carrying out such a suggestion; and he regrets that the Local Government Board refused the inquiry into the cause and conditions which protracted the epidemic of small-pox, suggested by the managers of the Asylums Board, which would doubtless have elicited information invaluable to local authorities and their officers in their endeavours to arrest the spread of infectious diseases.

SALARY OF PRISON SURGEONS IN IRELAND.

ON Wednesday, October 15, a deputation from the surgeons of prisons in Ireland waited on the Chief Secretary at Dublin Castle to express the views entertained by the prison surgeons with respect to the proposed scale of salaries under the new regulations. Dr. Brunker, of Dublin, in addressing the Chief Secretary, mentioned that at a meeting of the prison surgeons of Ireland, held on October 7, the following resolutions were unanimously agreed to:—"1. That we respectfully ask the Government to reconsider the proposed salaries of the medical officers of prisons, as, considering the very great increase of duties to be performed at present, in many cases three or four-fold, we are of opinion that the salaries offered us are quite insufficient as remuneration for the greatly increased responsibilities and many duties we are called on to perform. 2. That in the event of our reasonable request being conceded, then that such surgeons as are unwilling to undertake the mechanical duties of compounding should be allowed either to employ a compounder, who should have access to the gaol surgery when required, or be supplied with a suitable hospital warder." In reply to the deputation the Chief Secretary stated that the Government have decided to appoint a departmental committee, to report upon the question, with the view of ascertaining how the matter really stands. That committee would not do anything more than consider the matter and report to the Government. The deputation then withdrew.

QUEEN'S UNIVERSITY IN IRELAND.

ON Wednesday, October 15, the annual meeting of the Senate of the Queen's University to confer degrees and grant diplomas and certificates was held in St. Patrick's Hall, Dublin Castle. His Grace the Duke of Leinster, as Chancellor of the University, presided. From the Chancellor's opening statement it appeared that the number of students who received their University education in the Colleges of the Queen's University has of late years been steadily increasing—in 1876 it was 810; in 1877 the number rose to 844; in 1878 it again advanced to 866; and this year

to 920, thus reaching the highest limit which has been yet attained. In the Faculty of Medicine 80 candidates sought the degree of Doctor in Medicine, and of these 55 have satisfied the severe requirements of the examiners. Out of 62 candidates 33 have passed for the degree of Master in Surgery; 32 out of 46 have been deemed qualified for the diploma in midwifery; 162 candidates presented themselves at the second University examination in Medicine, of whom 103 have satisfied the examiners; 140 candidates out of 212 have been successful at the first University examination in the same Faculty. At this meeting of the Senate the degree of Doctor in Medicine, *honoris causa*, was conferred upon the President of the British Medical Association, Dr. Denis Charles O'Connor, and also upon the President of Council of the Association, Dr. Randle Wilbraham Falconer.

INFANTILE MORTALITY IN LEICESTER.

DR. WILLIAM JOHNSTON, Assistant Officer of Health for the Borough of Leicester, has published his annual report on the mortality of the district referable to zymotic diseases, and the infantile mortality of the town, during the year 1878. It will be remembered that Dr. Johnston has devoted much time and labour to an investigation of the causes which render the town of Leicester unenviably conspicuous for its high death-rate amongst infants; and in the present report he continues the record of his investigations on the subject. The theory that artificial feeding of infants is the chief cause of infantile diarrhoea is vigorously combated by Dr. Johnston, who, while deprecating the unnatural custom, still shows that of 238 deaths of infants in Leicester (about which full particulars could be obtained), no fewer than 165, or 69·3 per cent., were breast-fed. Again, atmospheric conditions, he maintains, act only as excitants of the disease; and this only applies to localities where other conditions are met with that act powerfully as predisposing causes, so that if any particular town or district could be discovered, the sanitary machinery of which was in perfect working order, the vicissitudes of climate would there be found to be perfectly harmless in the production of diarrhoea. We have not space to record the various and patient investigations undertaken by Dr. Johnston, but must content ourselves with giving the conclusions at which he has arrived, and these are: That during the first, second, and fourth quarters of the year, the children of Leicester do *not* die in greater numbers from teething, convulsions, etc., than those of other manufacturing communities; that a considerable percentage of the deaths referred to atrophy in previous years resulted from diarrhoeal seizures; and that the excess of infantile mortality in Leicester is mainly due to exceptional fatality from diarrhoea experienced during the summer months of each year. Further, that ignorance and wilful neglect of infant life on the part of mothers are not more general in Leicester than in other towns; and that the high infant mortality of the district is largely, if not wholly, dependent upon an insanitary condition—a wide-spread contamination of the atmosphere with putrefactive products—during the summer months of each year.

ALFRED HENRY GARROD, M.A., F.R.S.

It is with great regret that we record the death of Mr. Alfred Henry Garrod, the eldest son of Dr. Garrod. Mr. Alfred Garrod was educated at King's College, London, and began there his professional education. He then entered at St. John's College, Cambridge, and passed out in the schools at the head of the Natural Science Tripos. He was afterwards elected one of the Fellows of his College, and was an Examiner in the schools. In our profession he did not proceed further, we believe, than to

take the L.S.A. qualification, in 1868, but he made himself well known as an ardent student and teacher of natural science. He taught first in London at the Charing-cross Hospital School. When he was yet very young—about thirty—he was elected a Fellow of the Royal Society; and when he died he was Professor of Zoology and Comparative Anatomy in King's College, London, Fullerian Professor of Physiology at the Royal Institution, and Prosector to the Zoological Society. He contributed a paper, "On the Pulse and Body Temperature," to the *Proceedings of the Royal Society*, a series of important articles to the *Journal of Anatomy and Physiology*, and numerous papers to the *Proceedings of the Zoological Society*. He worked beyond his strength; and on the 17th inst. he died—of phthisis, we believe—at the early age of thirty-three, at his father's residence in Harley-street.

ROYAL SANITARY COMMISSION, DUBLIN.

THIS Commission terminated its sittings on Friday week, the 17th inst. Amongst the witnesses examined since our last notice of the proceedings of the Commission, were Dr. Norwood, B.L., who gave valuable evidence as to the necessity which existed for clearing spaces in certain of the older parts of the city, where many of the tenement-houses were from 150 to 200 years old.

Dr. J. Emerson Reynolds, University Professor of Chemistry in Trinity College, Dublin, gave evidence as to the polluted state of wells throughout the city, and of the saturated condition of the soil in the vicinity of those wells. An important cause of the high death-rate was the accumulation of water in the subsoil, and he considered that in any drainage scheme that should be carried out it would be necessary to provide for the removal of that subsoil water. It has been found that rheumatism, phthisis, enteric fever, and some other diseases which were prevalent in Dublin, were associated elsewhere with districts in which there was an accumulation of ground-water.

Dr. Henry Fitzgibbon gave evidence as to the danger of allowing the washing of clothes to take place in tenements where there was sickness. He had been called in to see persons ill of measles and typhus fever in crowded tenements, where the women added to the income of their husbands by washing clothes, and he had actually seen the clothes drying in the room where the sickness was.

The Rev. W. G. Carroll, incumbent of St. Bride's parish, spoke of the sanitary condition of his parish, and in his evidence mentioned that in the old parish graveyard, from the time of the Reformation, when their registers commenced, to the year 1859, when the graveyard was closed by order of the Privy Council, there had been no fewer than 10,000 bodies interred there, the entire space being twenty-one yards by twenty-four yards.

Dr. Rawdon Macnamara, ex-President of the College of Surgeons, regarded the state of the Liffey not as a direct cause of the disease, but as a very powerful indirect factor in producing disease. A fruitful source of typhoid fever was the connexion of closets and house-drains with street-sewers and the river, and the consequent invasion of poisonous gases. He strongly recommended the providing of public baths and washhouses at convenient centres.

After the hearing of some further evidence on Friday, the proceedings of the Royal Commission terminated.

With much regret we learn that on Monday last, October 20, Mr. William Jerrold Dixon, the able and courteous secretary of the Commission, died suddenly of heart disease at his temporary residence in Dublin.

THE mortality in Ipswich during the quarter just ended was remarkably low. The deaths were only 174, being no less than 147 under the number in the corresponding quarter last year. The medical officer of health attributes this to the remarkably low temperature of the summer months, coupled with the frequent and abundant rainfall during July and August, which has been especially favourable to the health of the infant population.

FROM ABROAD.

STATISTICS OF CANCER.

UNDER the title "Observations in One Hundred Cases of Cancer," Drs. Satterthwaite and Porter publish an elaborate paper in the *New York Med. Jour.* for September, giving an account of the conclusions to be drawn from the careful examination of one hundred unselected cases of carcinoma, most of which came under Dr. Satterthwaite's care, the rest being communicated by friends. The microscope was employed in all these cases, and they are divided into five groups—viz., epithelioma, scirrhus, encephaloid or medullary, colloid, and cauliflower growths. Several illustrations of microscopical appearances are given; and the principal facts are minutely tabulated. We transcribe the conclusions arrived at, omitting, for want of room, the comparisons instituted between these and the results recorded by Sir James Paget and others.

I. *Statistics of Scirrhus Carcinoma*.—1. *Age*: In the largest number of cases which were accessible to the knife, the disease commenced between the ages of 42 and 46, the youngest patient being 28 and the oldest 76. When internal organs were affected, not accessible to the knife, 51·77 was the average age of commencement. 2. *Sex*: Out of 41 cases of external scirrhus, 36, or 87·80 per cent., occurred in females and 12·20 in males—the difference being due to the great frequency of cancer of the breast. But in the growths which may be classed as internal, 76·92 occurred in males and only 23·08 in females. 3. *Conditions*: Of the 41 cases, 31 were or had been married, 7 were single, and of 3 the fact was not stated. Of the 13 internal cases, 10 were or had been married, 1 was single, and of 2 nothing was known. 4. *Locality*: Of the 41 cases of external scirrhus, in 33 it occurred in the breast, in 2 in the uterus, and in 6 in various other parts of the body. Of the 13 cases of internal, 6 originated in the stomach, 2 in the liver and stomach, and in the other 5 in various internal organs. 5. *Assigned Causes, especially Traumatism*: In 17 of the 41 external carcinomas there was no assigned cause, in 15 one was definitely given, and in 9 this point is not stated. In only 1 of the 13 internal cases was any cause assigned. 6. *Family History*: In the combined numbers 54 of external and internal carcinoma there were but 10 cases in which a family tendency was probable. 7. *Pain*: In 29 of the 41 cases there was pain of a severe character, in 7 it was moderate, in 3 non-existent, and in 2 not mentioned. Of the 13 internal cases, in 9 it was severe, and in 4 slight or absent. In 28 of the 33 breast cases pain was a decided symptom. 8. *Enlargement of Lymphatic Glands*: This was present in 22 of the 41 cases, while in 19 no information is given. In only 4 of the 13 internal cases it is stated that the glands were found enlarged at the necropsy. 9. *Treatment Prior to Operation*: In 12 of the 41 cases this had been employed, in 12 it had not been so, and in 17 the fact is not mentioned. 10. *General Health prior to the Carcinoma*: In 30 of the 41 cases this is stated to have been always good. This was so in 26 of the 33 cases of cancer of the breast. In all the 13 cases of internal carcinoma it had been good. 11. *Effect of the Operation on the Pain*: In 26 of the 41 cases decided relief was obtained, although in a few of them this did not continue for long; in 6 there was partial relief only, in 8 the history was incomplete, and in 1 no relief followed. In 24 of the 33 breast cases the pain was relieved. 12. *Rate of Growth after Removal*: In 17 of the 41 cases the progress was more rapid, in 3 it was not so rapid, but in the rest of the cases information was not obtainable. 13. *Average Period between First Appearance and Operation*: The average period in 38 cases in which this was recorded was 17 months. 14. *Risk of the Operation*: In 40 of the 41 cases an operation was performed, and the mortality directly attributable to it was only 5 per cent. 15. *Average Interval between First Removal and Death*: There were 18 fatal cases, but excluding from these 3 cases in which death was due to the operation or uræmia, the average is 20·33 months. 16. *Average Duration of Non-Fatal Cases*: Of these 16 were living on January 1, 1879, and furnished an average of 35·75 months: but as in many instances the cases were concluded shortly after the operation, this percentage will become much higher. Combining the cases which proved fatal with those still living, we obtain

an average of 25.79 under operation, which, as time goes on, will be increased. The person who has lived longest (256 months), and is still in pretty good health, has been operated upon four times. This and some other cases lead to the conclusion—"that where the greatest number of operations had been performed we have found the greatest duration of life." 17. *Does Early Operation give a Longer Respite?* The authors do not feel in a position to draw a trustworthy conclusion on this point. 18. *Average Duration of Symptoms of Internal Scirrhus:* This in the 13 cases was only about 7 months, and in one case there were no symptoms at all. 19. *Are the Clinical Symptoms sufficient to make a Positive Diagnosis?* In the majority of cases, those of scirrhus of the breast, no mistake is made; but in internal cancer the variety is rarely detected, and indeed the disease is not suspected unless it interferes with some important function. 20. *Has the Microscopic Study of the Disease enabled us to determine its Real Nature from the Clinical Symptoms?* In only one instance has an error been made in assigning a growth to its particular class. 21. *Has Recurring Tumour the same Type as the Primary?* In reference to scirrhus, it may be said that it never undergoes any change if it return to the same site. Scirrhus of the breast, however, is apt to be medullary when it invades such organs as the lung, liver, or kidney. 22. *Relation of the Disease to Phthisis:* In the 54 cases of scirrhus, in only 5, or 9.26 per cent., has any family history of phthisis been obtained, and in no case is phthisis mentioned as having preceded the outbreak of the disease.

II. *Statistics of Epithelioma.*—Of the 37 cases of epithelial carcinoma, all but one occurred when they were in reach of operative interference. 1. *Age:* The largest number of those cases were first observed between the ages of 58 and 66, the average age at which the disease occurred being 54.11 months, with a range from 27 to 72 years. 2. *Sex:* Of the 37 cases, 28, or 75.68 per cent., occurred in males, and 9, or 24.32, in females—these figures being the reverse of those presented in the scirrhus variety. 3. *Condition:* Of the 37 persons, 28, or 75.68 per cent., were or had been married, while 4, or 10.81 per cent., were single. In 6, or 13.51 per cent., this point is uncertain. 4. *Locality:* In 11, or 29.73 per cent., of the 37 cases, the growth was located on the lip or at the angle of the mouth; in 4, or 10.81 per cent., on the tongue; in 3, or 8.11 per cent., on the glans penis; in 8, or 21.62 per cent., on the nose, cheek, ear, and labia (two cases each); and in 11, or 29.73 per cent., on the floor of the mouth, eyelid, edge of the hair, palate, rectum, larynx, neck, face, lower jaw, oesophagus, and cornea (one each). 5. *Assigned Cause:* In 12, or 32.43 per cent., of the 37 cases, the disease was ascribed to smoking a pipe, the patients in all these having been in the habit of resting the stem of the pipe at the point where the disease first appeared; in 8, or 21.62 per cent., various traumatic causes were assigned; and in 17 cases no cause was assigned. 6. *Family History:* In 26, or 70.27 per cent., there was no family history of carcinoma; while in 5 cases, or 13.51 per cent., this was distinct. In 6 cases, or 16.22 per cent., the facts were deficient. 7. *Pain:* In 15, or 40.54 per cent., the pain was very severe; in 7 it was moderate; in 10, or 27.03 per cent., there was absolutely no pain; and in 5 cases, or 13.51 per cent., no information could be obtained. Pain seems to be a very prominent symptom in this class of growth, and when it attacks the tongue the suffering is more intense than in other localities. 8. *Enlargement of Lymphatic Glands:* In 18 cases, or 48.65 per cent., there was none; in 5 this existed; and in 14 there was no information on the subject. 9. *Treatment prior to Operation:* In many cases there had been local treatment before, the application generally made being a saturated solution of the perchloride of antimony, which in almost all cases produced temporary relief, and in fact seemed to cause the disease to disappear. 10. *Previous General Health:* In 28 cases, or 75.68 per cent., the previous health had always been good. 11. *Effect of Operation on Pain:* Of 29 of the 37 cases in which a cutting operation was resorted to, in 16, or 57.77 per cent., the pain was relieved, and in 2 partially relieved. In 2 the pain was not relieved, and in 8 no information is given. In 2 cases in which no cutting operation was performed, relief was obtained by antimony. It would thus appear that an operation should be resorted to for the relief of pain; and in this class of growths some relief seems to have been obtained by the use of a local caustic, contrary to what happens in scirrhus carcinoma. 12. *Rate of Growth after Removal:* Of the 29 cases in

which a cutting operation was performed, in 13, or 44.83 per cent., the recurring neoplasm grew more rapidly than the primary; in 2 there has thus far been no return; and in 14 no information can be got on this head. 13. *Average Period between First Appearance and Operation:* In 26 of the 37 cases the average interval between inception and operation was 20.92 months, the shortest interval being three months, and the longest 156 months. 14. *Average Period between First Removal and Death:* Of the 10 fatal cases, the average interval between removal and death was 5 months—the shortest interval being 1, and the longest 9 months. 15. *Average Duration of Non-Fatal Cases:* In the 18 non-fatal cases, the average duration was over 54 months; the shortest period being 8, and the longest 178 months. When the full history of each case is concluded, there is a possibility that the duration of the disease may have equalled, in some instances, the remarkable ones already on record. 16. *Average Duration of Fatal Cases:* In the 15 fatal cases the average duration in 13 was 29.23 months; the shortest being 5, and the longest 154 months. In the 7 fatal cases which occurred before 45 years of age, the average duration of life was only 14½ months; while in 2 cases after 45 it was 39 months. 17. *Average Duration of Fatal and Non-Fatal Cases:* Of the 31 cases of which complete records exist to January, 1879, the average duration is 44.03 months; while the average duration is comparatively less for all the cases together, if we separate those below 45 from those above that age, it is found that in the former the average is only 28.70, while above 45 it is 51.33 months. This average will of course constantly improve until all the cases are dead. 18. *Relation between the Variety of Carcinoma and the Site:* Some important clinical facts may be deduced from these statistics, confirming previous ideas. The site determines the kind of disease. Given cancer of the breast, and it will almost certainly be scirrhus. Given cancer of the lip, and it will almost certainly be epithelioma. Given cancer of the eyelid, and it will almost certainly be rodent ulcer; of the liver, it will almost certainly be encephaloid.

The cases of colloid, encephaloid, and cauliflower growths are too few to serve as a basis of comparison. No general conclusions are given which apply to all cases of cancer, and there is no advantage in thus classifying them together. Their clinical characters are as different as their microscopical, and each group should be studied separately.

MR. GRAVES, of Pall-mall, has presented University College Hospital with twelve valuable framed engravings, principally by Landseer, to ornament the walls of one of the wards.

SALARIES OF MEDICAL OFFICERS OF HEALTH IN IRELAND.—The Local Government Board for Ireland has intimated to the Cavan Board of Guardians that in case they adhere to their determination of not reconsidering their action in reducing the salaries of the sanitary officers, they "will feel it necessary to exercise the power vested in them by the 11th section of the Public Health Act of 1878, and to issue an order fixing the salaries of the medical officers of health, commensurate with the duties they will now be called upon to discharge." At a meeting of the Board of Guardians of the Rathdown Union on Wednesday, October 15, a letter was read from the Local Government Board with reference to the salaries recently granted to the medical officers of health under the Sanitary Act of 1878 in the urban sanitary districts of Blackrock, Kingsdown, and Bray. The letter pointed out that in the Blackrock township the medical sanitary officers' salary had been increased from £20 to £50 by the township commissioners. The Board could not sanction that increase, as the amount granted was more than a fourth of the doctor's salary under the Medical Charities Act, and they could not under the recent Sanitary Act sanction a larger sum than one-fourth the salary as medical sanitary officer—viz., £27 10. The Board further pointed out that they would bring the matter before Parliament next session. It would be interesting to know what warrant the Local Government Board for Ireland has for thus speaking of a *maximal scale* of salaries of medical officers of health, as distinct pledges were given by the Government that *any* scale of such salaries would be withdrawn on the passing of the Public Health (Ireland) Act of 1878. At the present moment, we believe, there is imminent danger of the entire collapse of the sanitary organisation of the sister country.

REVIEWS.

The Student's Guide to the Diseases of Women. By ALFRED LEWIS GALABIN, M.A., M.D., F.R.C.P., Assistant Obstetric Physician and Joint Lecturer on Obstetric Medicine to Guy's Hospital; Examiner in Physiology and in Obstetric Medicine to the University of Cambridge, etc. London: J. and A. Churchill. 1879. Pp. 351.

THE work before us is by one who, before beginning the special study of Obstetrics, had highly distinguished himself not only at his University, but in the field of general medicine; and who has, moreover, received his obstetric education in the healthy atmosphere of a general hospital, with the sound guidance and help of one of our most trusted specialists as his senior colleague; and who has made original contributions to obstetrical science which are of the highest class. From such an author we look for a good book.

The work in many respects fulfils our expectations. Its style is clear, elegant, and concise. It contains a great amount of information; indeed, we do not think the student or practitioner will find any book which will convey to him in so small a compass so much accurate knowledge about the pathology and diagnosis of the diseases peculiar to women. The faults of the book are not those of omission. Little that is well ascertained, and that could fairly be given in a work of this size, is left out. But unfortunately much is admitted that is not at all well established, and that many will think at variance with sound principles of medicine. The defect of the book is a want of discrimination between that which has been proved, or is supported by respectable evidence, and that which is only theory, and has never been proved, and perhaps only supported by writers whose mode of advocacy is such as to discredit the cause they espouse.

A great hindrance to progress in our knowledge of the diseases peculiar to women lies in the fact that these diseases occur in the sex, and at the age, in which hysteria is most prevalent. Consequently the gynaecologist, above every other specialist, ought to be on the watch lest he attribute to local disease symptoms which are merely hysterical. Many writers on diseases of women have fallen into this fallacy. We cannot help thinking that Dr. Galabin has too hastily accepted views based only on cases which are open to this interpretation. For instance, he says, speaking of uterine flexions, that "those which chiefly attract attention may be distant reflex symptoms, such as disturbances of digestion or hysterical manifestations" (page 56). We would ask whether in such cases these phenomena, although associated with uterine flexion, may not be the result simply of general ill-health or of hysteria? Is it not a pathological rule, that where general symptoms spring from local disease these general symptoms are in proportion to the severity of the local disturbance; and is there any evidence that this law does not hold good of uterine flexions? Again, at page 155 we read, touching inflammation of the cervix, "that such a condition is apt to manifest itself rather by distant and reflex symptoms, the connexion of which with any uterine malady may be easily overlooked." We thought this had been long ago blown to the winds by Dr. West's Croonian Lectures. One more instance of the error we criticise. At page 174 we are told that "sometimes a partial or complete paraplegia . . . is the result of uterine disorder. Is there one tittle of evidence that these cases are other than hysterical?"

We have another fault to find. It is one of the first principles of sound treatment, that the remedy should not be worse than the disease. It seems to us that this rule is transgressed when (at page 323) an intra-uterine stem-pessary is recommended for the cure of amenorrhœa—a remedy which may cause death, and often causes serious and prolonged illness, for a symptom which has never been proved to produce ill-health. The same criticism applies to the use of stems for deficient development of the uterus (page 37) or of the ovaries (page 226). We think, moreover, that a book for students is not the place in which to teach measures that are discountenanced by nearly all the leaders in that department of our profession, by most general practitioners, and by all the evidence which has been published in a scientific form. This is the case with stem-pessaries. To most of the literature advocating their use,

the remark of one of Dr. Galabin's colleagues applies: "The publication of isolated cases, however good, proves nothing, whereas the withholding of the whole suggests much." The experience of those few writers who have published the whole of their cases (we believe Valleix and Olshausen are the only ones) shows that benefit follows the use of stem-pessaries only in a small minority of cases. And in this minority, of course, the benefit may not have been due to the stem. We think Dr. Galabin would do a great service to the profession if he would advocate the use of stem-pessaries by publishing an account of every case in which he has used one, giving not merely the patient's condition while in hospital, but details as to symptoms, other treatment carried out at the same time, and the length of time the patient was kept under observation. There are other modes of treatment to which we have to offer the same criticism. For instance, at page 91 we find Dr. Marion Sims's operation for anteversion advised. We think here, that if Dr. Galabin would publish an account of all the cases in which he has done this operation, giving a full account of symptoms and result, both immediate and permanent, he would do a most valuable work. For, much as the operation has been recommended, no one has ever published his cases. We should attach the greatest weight to Dr. Galabin's opinions upon these and similar points, did we know that they were formed from careful observations of his own, continued for a long period; and the evidence of cases vouched for by Dr. Galabin would be unimpeachable. But if these opinions are merely founded on the writings of others, then their importance depends upon the value of the data on which they are based; and at present the materials for judgment are worth very little.

Dr. Galabin fully accepts the mechanical pathology of the diseases of women. He says (page 78), "the angle of possible deviation (in anteversion) cannot exceed 90° at the utmost, while that of retroversion may approximate to 180°, and this is a main reason why the symptoms of anteversion are generally milder than those of retroversion." The force of this reasoning is not apparent to us. The most extreme displacements may be found with only slight symptoms, and slight displacements may be accompanied with grave symptoms such as are commonly supposed to be the consequence of displacements; therefore it would seem clear that the extent of the displacement is not the measure of severity of symptoms. We are glad to point out, by the way, that Dr. Galabin (page 82) gives a new, and we believe more correct, description of the mode of action of Hewitt's cradle pessary, and notices the error of the picture usually given.

In short, we have here a well-written book full of well-digested information, and embodying much original thought, but also containing much that seems to be based only on the writings of others, and is not only unproved theory, but hurtful in practice. We think that to lay down in a student's book, as good treatment, measures such as those we have criticised, is likely to lead to much mischief, although we doubt not that in Dr. Galabin's prudent and skilful hands little harm may result.

Dr. Galabin's endorsement of anything in pathology or treatment must largely help it forward to general acceptance; we would therefore hope that by the time a second edition of this book is called for, he will either have added to the benefits which he has already conferred upon obstetric science by publishing fully the results of his experience of the controverted methods of treatment we have alluded to, or that he will have reconsidered the evidence upon which some of his views are based, bringing to bear upon such questions a larger measure of scientific scepticism.

Die Secretion des Schweisses, eine bilateral-symmetrische Nervenfunction. Nach Untersuchungen am Menschen und an Thieren dargestellt, von Dr. ALBERT ADAMKIEWICZ. Berlin: August Hirschwald. 1878.

The Secretion of Sweat, a Bilateral Symmetrical Function of the Nervous System. An Essay founded on Experiments on Men and Animals, by Dr. A. ADAMKIEWICZ, Assistant-Physician to the Nervous Department of the Charité Hospital, Berlin: August Hirschwald. 1878.

The object of this experimental essay, which deserved an earlier notice at our hands, is shadowed forth in its title; it is, to prove the dependence of the perspiratory function on purely nervous influences. The great difficulty with the sweat-

glands is this, that up to the present moment, as far as we know, no trace of any nerve-fibres putting them in direct communication with the central nervous system has been discovered. Most physiologists have therefore been content to explain the secretion of sweat, as Dr. Adamkiewicz remarks, "as a physical phenomenon of filtration, in which the glands are only actively involved to the extent of themselves preparing in their epithelium the fat which appears in their secretion." The nerves have only been credited with exercising an indirect control over the sweat-glands by regulating the calibre of the bloodvessels and the arterial blood-pressure. Dr. Adamkiewicz, however, believes he has proved that the secretion of these glands may be the result of a pure nervous stimulus which does not affect the bloodvessels in the least, and hence he regards the ordinarily accepted theory of perspiratory causation as false, and the theory of its purely nervous nature as the true one. The details of his experiments are given in his essay: here we can only briefly summarise their results. The nervous apparatus which governs the secretion of sweat probably takes its origin on the surface of the brain. It is certain that the nerves descend into the spinal cord through the medulla oblongata, and they then join secretory centres which are scattered throughout nearly the whole spinal cord. These centres are probably seated in the anterior cornua of the grey substance, and nearly at the same spots as the motor ganglia which preside over analogous peripheral districts. Secretory fibres leave the cord in company with motor nerves by the anterior spinal roots, and enter the same regions of the body. The bilateral activity of the sweat-glands under a unilateral stimulus, such as that of muscular movement of one arm, probably depends on the facility with which such stimulus is transmitted across the ganglionic sweat centres of the cord from one side of the body to the other, their irritability contrasting strongly in this respect with that of the ganglia of muscular movement which ordinarily resist such a transference. Without going further, we may say that Dr. Adamkiewicz's theory has received strong support from the later experiments of Nawrocki and Luchsinger, which were referred to in these columns in 1878. His essay is a valuable contribution to our knowledge of the physiology of the subject.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, OCTOBER 21.

JONATHAN HUTCHINSON, F.R.C.S., President, in the chair.

THE PRESIDENT, in opening the present session of the Society's business, expressed his hope and expectation that it would be as prolific of earnest work as any of its predecessors. He called attention to the new method of exhibition of specimens by "card," without any oral communication, the rules in reference to which we printed and commented on last week. He said it would be quite optional to members to exhibit either in the old or in the new way, but those specimens which were exhibited by card must be ready for the examination of members half an hour before the meeting was constituted, so that there might be time to have the card-descriptions read. Such specimens would not further come before their notice, unless, when the President read the list of these, any member chose to ask a question or make a remark regarding them.

GROWTH IN LEFT VENTRICLE, WITH EMBOLISM OF SEVERAL ARTERIES.

Mr. BUTLIN brought forward specimens illustrative of this condition, taken from a patient of Mr. Holden's. A full history was not obtained, but in addition to gangrene of two fingers, evident on the patient's admission into the hospital, he complained of pain in the abdomen. All his symptoms, however, were attributed to the effects of severe cold, to which he had been exposed. He soon began to vomit bloody material, became collapsed, and died. Post-mortem, the ends of two fingers of the left hand were found to be gangrenous, the corresponding digital arteries being plugged with small clots like grains of corn. The left brachial artery was also plugged throughout, clots extending also into its branches. The

radial was plugged down to the wrist. The central portion of the clot in the brachial artery appeared to have been first formed. The abdomen showed general acute peritonitis of recent date, and a small quantity of faecal matter was also detected. This had evidently escaped from minute ulcerated openings of the jejunum, which was in a semi-rotten condition. The superior mesenteric artery was found plugged, and also its branches supplying the jejunum. The hepatic artery was also plugged, but there were no secondary effects in the liver. The heart showed a large fibroid mass attached to the interventricular septum, and projecting into the left ventricle. The surface of this mass was covered by recent clot, and it was found on section to be composed of ordinary fibrous tissue like the growths and patches usually found in the heart. It had no doubt been the origin of emboli in the various arteries. Two similar growths had been brought before the Society, the one by Dr. Pye-Smith (vol. xxviii. of the Society's *Transactions*), and the other by Dr. Greenfield (vol. xxvi.). Dr. Pye-Smith had suggested that the tumour he described was of syphilitic origin; but in the speaker's case there had been found no evidence of syphilis. The plugging of the mesenteric artery in connexion with the gangrene of the jejunum also recalled a very similar case brought before the Society by Mr. Howse (vol. xxix. of the Society's *Transactions*). The latter had thought the plugging was secondary to the gangrene in his case, as he found no evidence of a primary clot anywhere; but the speaker thought, from the fact that broncho-pneumonia was present in that case, that the vessels of the lungs might have supplied the embolus.

MOLLITIES OSSIIUM WITH MYELOID TUMOURS.

Mr. BUTLIN also exhibited the specimens in this case. They were taken from a man, fifty years of age, who had been under the care of Mr. Callender in St. Bartholomew's Hospital. Besides the myeloid tumours, patient had become the subject of fracture of the thigh before admission into hospital. The fracture was supposed to have been produced by ordinary causes, but the softened condition of the long bones, discovered after death, explained its occurrence. Post-mortem there were found two myeloid tumours in connexion with the lower jaw, a myeloid tumour in one rib, and a general softening of the long bones. They could not be readily bent or cut with a knife, but were so soft that a few strokes of the saw were sufficient to make a complete longitudinal section of the longest of them. Their interior contained the gelatinous fatty material, of reddish and other colours, always found in mollities ossium. There were also in the heads of the femora and humeri cavities containing clear fluid, such as had been described in a case of Mr. Solly's. The interest of this case was in the possible relation between the fragility of the bones and the presence of the myeloid tumours. No case showing the possibility of any such connexion had hitherto been recorded. The speaker stated, in reply to Dr. Pye-Smith, that as the patient was not known before death to be suffering from bone-disease, his urine had not been carefully examined for phosphates, etc. In reply to Mr. Walsham, he also stated that no dilatation of the veins had been observed, and that no microscopic sections of bone had been made before the use of reagents.

Mr. ADAMS had made the necropsy in Mr. Solly's case of mollities ossium, and could confirm Mr. Butlin's statement of the occurrence of cavities, containing clear fluid, in the heads of the long bones. The case now reported was interesting as suggesting whether there was any causal relation between mollities ossium and any of the forms of malignant growth. He knew of no previous case in which these conditions were associated.

(To be continued.)

FATAL ASPHYXIA OCCURRING AT REMOTE PERIODS AFTER ANÆSTHESIA.—In the *Gazette des Hôpitaux*, Nos. 80 and 103, an account is given of a case which occurred in Prof. Richet's practice, of a patient, who, having inhaled chloroform during amputation of the breast without any immediate ill effects, was seized on the second day after the operation with bronchitis, with suffocating breathing, which proved fatal. Four similar cases occurred in M. Richet's practice which pursued the same course, one of the features in common being their occurrence in obese persons.

OBITUARY.

ARTHUR LEARED, M.D. DUB. AND OXON., F.R.C.P. LOND.,
M.R.I.A.

WITH great regret we record the death of Dr. Arthur Leared, well known in London as a traveller as well as a physician. Dr. Leared obtained his education in Dublin, and graduated in 1845 as B.A., in 1847 as M.B., and in 1860 as M.D. of the University of Dublin; and he was admitted also to the M.D. degree of the University of Oxford. In 1854 he became a Member, and in 1871 was elected to the Fellowship of the Royal College of Physicians. He was an ardent student of his profession, an acute and accurate observer, and fertile in resource at the bedside. We cannot give anything like a full list of the various appointments he held, but he sought practical knowledge of his profession in many different fields. He was one of the Physicians to the British Civil Hospital at Smyrna, at the time of the Crimean War; Senior Physician to the Metropolitan Dispensary; Physician to the Royal Hospital for Diseases of the Chest; and Lecturer on Medicine in the Grosvenor-place School for some time before the day came when the work of medical schools unconnected with hospitals was done, and the Grosvenor-place School was closed. At the time of his death Dr. Leared was Senior Physician to the Great Northern Hospital, and Honorary Physician to St. Mark's Hospital. He belonged to many of the professional societies of the metropolis, and contributed not a little to the literature of medicine. The value of his work on "Imperfect Digestion, its Causes and Treatment," has been shown by its having passed through several editions. In 1869 he contributed to the *Proceedings of the Royal Society* a paper "On Sulphocyanides in the Urine and in the Blood"; while in our own pages and in other medical journals he published, before and after that date, many papers, as—"On the Sounds caused by the Circulation of the Blood," "An Analysis of 136 Cases of Phthisis," "On the Successful Use of Arsenic in certain kinds of Gastric Pain," and "On the Sounds of the Heart in their Relation to Pathology"; besides papers to the Pathological and the Clinical Societies. And one great proof both of his mechanical skill and his interest in chest affections was shown by his invention of the double stethoscope. But as we remarked above, Dr. Leared was also well known as a man of wide general education, and as an ardent and adventurous traveller. He was a Member of the Royal Irish Academy, a Fellow of the Royal Geographical Society, and a Member of the Icelandic Literary Society. He was a great traveller, and was most prone to visit places not generally resorted to. He early visited Iceland, and travelled there more than once, we believe; and one of the fruits of the interest the country excited in him was the production of "A Plan for the Prevention of the Fatal Cystic Disease of Iceland," which was published in our own pages in 1863, and in Icelandic. He then turned his attention to Morocco, and in the autumn of 1872 visited that country, penetrating into the famous city of Morocco. The city was at the time in a state of savage turbulence, and though Dr. Leared managed to see a good deal of it, he nearly lost his life in doing so, having gone near to dying by having his food poisoned. In 1875 he published a handsome, well-written, very instructive, and well-illustrated volume, entitled "Morocco and the Moors," recording his journey in the country, and his visits to Tangier, Mazagan, Mogadore, Morocco, and other cities, and giving much information as to the value of Tangier and Mogadore as health-resorts, and many other details of medical interest. In 1877 Dr. Leared had the good fortune to be appointed Physician to the Embassy of Portugal sent to congratulate the Sultan of Morocco on his accession, and, as may be supposed, he eagerly availed himself of such an opportunity of visiting the Court of Morocco; and Mrs. Leared was adventurous enough to accompany him, as the Ambassador was accompanied by his wife and daughter. On such an occasion the journey was performed, of course, under the most favourable circumstances possible. But the embassy did not go far into the country, having been received by the Sultan at Maquinez, which is only some 150 miles from Tangier. Dr. Leared had, however, the satisfaction of visiting not only Maquinez, the "sacerdotal city of Morocco," and of being introduced to the Sultan, but also

of visiting Fez, the city *par excellence* in the eyes of the Moors. Early this year he published a small and interesting volume giving an account of his "Visit to the Court of Morocco." While at Maquinez Dr. Leared succeeded in obtaining, with a view of a future visit to the remoter parts of Morocco, and perhaps even to Timbuctoo, a safe conduct, sealed with the seal of the Sultan—a document not known to have ever previously been given to any traveller; and the possession of this powerful document led possibly to his last and fatal journey. This autumn he again set forth on his travels, but soon after reaching Tangier he became ill, and, getting worse rather than better, came home as quickly as possible. Here his malady was suspected to be typhoid fever; still, though his health and strength had of late years been much impaired by frequent attacks of gout, by which the kidneys had been affected, it was at one time hoped that he would recover; but, after rallying to some extent, he again became worse, and gradually sank and died on the 16th inst., in the fifty-eighth year of his age. His death will be deeply regretted by a host of friends and patients, literary and general.

AMÉDÉE DEVILLE.

SOME of our readers may remember the subject of this notice when an enthusiastic visitor to our museums, hospitals, and libraries, now more than twenty years ago, and all will feel interested in the perusal of the following sketch from the pen of Professor Paul Broca, published in the *Gazette Hebdomadaire* for October 17:—

"We learn the death of Dr. Amédée Deville, formerly a prosecutor of the Paris hospitals. His life forms a chapter of contemporary history sufficiently remarkable to induce us to advert to it. Deville died on August 20 in the *maison de santé* at Ivry, in which he had been taken care of for more than seventeen years. He was one of the most deplorable victims of the *coup d'état*. He commenced life in the most brilliant manner in the career of *concours*, having been elected interne in 1841, anatomical assistant at the Faculty in 1843, and prosecutor to the hospitals in 1846. He competed in a remarkable *concours* for the post of *agrégé* in surgery in 1847, and for the Bureau Central in 1850; and although the result of these two contests was unfavourable to him, no one had any doubt of his succeeding on the next occasion, and a promising future seemed assured to him, when the *coup d'état* came to frustrate his career. An expert anatomist, a learned surgeon, and a skilful operator, he established himself at the Ecole Pratique of the Faculté de Médecine as a private professor of external pathology and operative medicine; and his oratorical talent attracted crowds of enthusiastic pupils. There it was that a police commissioner, accompanied by two agents, arrested him on December 13, 1851, just as he was about to commence his lecture. He had taken no part whatever in the insurrectional movement which followed the event of December 2. So far from it, that, belonging to the 'pacific democracy' party, he had used all his influence in allaying the agitation of his pupils. But he was the son of Deville the deputy, who was at that time a prisoner at Pelle-Ile for having taken part in the insurrection of 1849; and more than this was not sought for to justify his arrest. Placed first in the fort of Bicêtre, and then in a military prison, it was not long before he was comprised, without any trial, in the list of those to be transported to Cayenne. His masters, Serres, Bérard, Ricord, Cruveilhier, and his numerous friends, had made repeated efforts to obtain a commutation of his sentence into exile; but all in vain, and the unfortunate man embarked on board the frigate *Canada*, at Havre, for Cayenne. But the vessel, caught in a tempest, was obliged to put into Brest, and Deville's friends seizing the opportunity of this respite, renewed their efforts, and at last obtained for him the favour of a decree of exile.

"He repaired to London, where he lived for several years in extreme poverty, which, however, did not abate his courage nor chill his ardour for study. In place of seeking fortune in practice, he devoted himself entirely to scientific work, frequenting assiduously the hospitals and museums, and especially the great anatomo-pathological museum of Guy's Hospital, collecting materials which which formed the subject of several very interesting memoirs, as 'Coup d'œil sur la Clinique Anglaise,' 'Revue Clinique des Hopitaux Anglais,' etc. One of these, on 'Hernies du Testicule,' threw

great light on the question of fungus of the testicle, at that time a matter of great controversy. These important publications, which appeared in the *Moniteur des Hopitaux* in 1853, only increased the regrets of those who regarded the exile of so distinguished a *savant* as a misfortune to French surgery. But one fine morning Deville found himself refused admittance into the museum of Guy's Hospital, in which he had been working for a year, the steward of the Hospital assigning as a pretext for his exclusion that he had made drawings of some of the preparations! It was in vain that, in a letter addressed to the *Medical Times and Gazette* of August 27, 1853, he demonstrated his innocence, declaring that he did not even know how to draw. The authorities made no reply, but held fast to their decision; and those who know how to read between the lines can understand that the true motive of this persecution had to be sought elsewhere. We may refer the reader for further details on this sad business to an article, entitled 'Le Droit International en Matière de Science,' which we published in the *Gazette Hebdomadaire* for January 13, 1854. Deville thus found his scientific career closed to him, and this was one of the bitterest moments of his life. In order to be able to live, he then resigned himself to the endeavour to make a practice, and so rapid was his success that in the first year he made 25,000 fr., and soon found himself able, while succouring his companions in exile, to lay by money. At the end of some years he was already in the possession of 125,000 fr. deposited in one of the London banks. But his success never calmed his mind. The remembrance of the persecutions which he had suffered, and which were only too real, never abandoned him; and feeling himself watched by the French police in London, he believed them everywhere, and the most insignificant events became for him indications of renewed persecutions. He became distrustful to such a point that he no longer dared confide his letters to the post. At last, in 1861, he was seized with an attack of acute mania, which left him permanently insane. After some months his relatives brought him back to France, and placed him in the *maison de santé*, where he remained until his death." Mr. Stone, of the Royal College of Surgeons, wishes to add to this notice that Dr. Deville, who was admitted a Member of the Royal College of Surgeons of England in 1854, was for some time Lecturer on Anatomy and Operative Surgery in the Grosvenor-place School of Medicine—from, he thinks, about 1854 to 1857,—and that he contributed to this journal a paper on Ligatures of Arteries. He resided for some time in Regent-street, and, mainly owing to the help of Mr. John Bird, M.R.C.S. Eng., so well known from his zealous interest in the neglected condition of the blind, Dr. Deville soon obtained a good practical knowledge of English, and was able to speak the language fluently.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 16:—

Hatton, George Stokes, Newent, Gloucestershire.
Payne, John Woolward, 11, Finsbury-square, E.C.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Baines, Harold A., Charing-cross Hospital.
Harrison, Charles, St. Bartholomew's Hospital.
Knight, Alfred Osborne, Middlesex Hospital.
Knight, George Henry, University College Hospital.
Pitman, William Weston, Charing-cross Hospital.
Shepherd, Timothy A. J., Guy's Hospital.
Stuart, Sidney Offord, Guy's Hospital.
Trapp, John Best, Guy's Hospital.

The successful candidates at the competitive examination for the Society's Prizes in Materia Medica and Pharmaceutical Chemistry, held in August last, were:—

First: Clarence William Haig-Brown, of St. Thomas's Hospital, the Gold Medal.
Second: John William Ellis, of the Liverpool School of Medicine, the Silver Medal and Books.

APPOINTMENTS.

DUNCAN, JOHN THORNTON, M.R.C.S. Eng.—Medical Officer and Public Vaccinator to the Penistone Union.

JONES, THOMAS, M.B. Lond., F.R.C.S.—Assistant-Surgeon to the Royal Infirmary, Manchester.

KFAL, WILLIAM, M.R.C.S. Eng., L.S.A.—Medical Officer to the Oakham Union.

KRAUSS, Dr. ADOLPHUS, of Nuremberg—Resident Medical Officer to the German Hospital, Dalston.

LINDEMAN, SIDNEY H., M.R.C.S. Eng., L.S.A.—House-Physician to the General Lying-in Hospital, York-road, Lambeth.

BIRTHS.

BARNES.—On October 13, at Queen's-gate-gardens, the wife of A. R. Barnes, M.B., of a son.

FRAZER.—On October 13, at Yorevale, Bournemouth, the wife of William Frazer, M.D., of a son.

HILL.—On October 19, at Oak House, Tufnell-place, Holloway-road, the wife of J. R. Hill, M.R.C.S., of a daughter.

LEAKE.—On October 18, at Drimna, Dublin, the wife of Surgeon George D'Alton Nugent Leake, A.M.D., of a son.

SIMPSON.—On October 19, at Horton-crescent, Rugby, the wife of J. Herbert Simpson, M.D., of a daughter.

WHITE.—On October 10, at Moat House, Kingston-on-Thames, the wife of George Farr White, F.R.C.S., of a son.

MARRIAGES.

BRYAN—BARKER.—On October 18, at Brighton, Francis Charles Bryan, M.R.C.S., of Littlehampton, second son of J. M. Bryan, M.D., of Northampton, to Ada Mary, second daughter of Samuel Barker, M.D., of Brighton.

BURTON—KIBBLER.—On October 18, at South Hackney, Henry Burton, of Beech Hall, Woodford, to Alice, second daughter of R. C. Kibbler, M.D., of Granton House, King Edward-road, South Hackney.

CAMPBELL—AUSTIN.—On October 14, at Kensington, Chas. Moss Campbell, M.D. Edin., of 17, Belgrave-terrace, Torquay, to Helena Emma, youngest daughter of the late John Austin, Esq.

ETON—CULYER.—On October 16, at St. Mary's, Newington, Edward Wm Eton, M.B., of Stoke Poges, Bucks, to Mary Ann Culyer (widow), of 145, Newington-place, Kennington-park-road, London.

GARRETT—BLACKMAN.—On October 14, at Islington, Frederick Garrett, Esq., of Highbury-crescent, to Ellen, second daughter of Charles T. Blackman, M.R.C.S., of Highbury-grove.

O'CONNELL—LUSH.—On October 16, at St. James's, Piccadilly, Surgeon-Major O'Connell, A.M.D., of Thornfield, Hastings, to Edith Mary, eldest daughter of Joseph Lush, Esq., of Woodside, Southsea, Hants.

ORAM—CLAYDEN.—On October 16, at Clarence-road Chapel, N.W., Richard Rundell William Oram, L.R.C.P., of 13, Clapham-common-gardens, S.W., to Emma Jane, eldest daughter of P. W. Clayden, of 13, Tavistock-square.

RICHARDSON—FLEMING.—On October 15, at Morningside, Edinburgh, Ralph Richardson, Writer to the Signet, to Melville Elizabeth, eldest daughter of Andrew Fleming, M.D. Edin., Deputy Surgeon-General, late of H.M.S. Bengal Army.

SEMON—REDEKER.—On October 19, at Berlin, Felix Semon, M.D., M.R.C.P., of 59, Welbeck-street, Cavendish-square, to Auguste Louise Dorette, only daughter of the late Heinrich Redeker, Esq., of Cloppenburg, Oldenburg.

TUNSTALL—STERN.—On October 15, at South Hackney, Alfred Croudson Tunstall, M.B., C.M., of 2, Victoria-park-road, to Evelina C. Stern, of 5, Cambridge Lodge-villas, Mare-street, E.

DEATHS.

ARMISTEAD, EMILY AGNES, wife of William Armistead, M.B., at Cambridge, on October 18, aged 32.

BLACK, PATRICK, M.D. Oxon., late Senior Physician to St. Bartholomew's Hospital, at 11, Queen Anne-street, W., on October 12, aged 66.

DUDLEY, LOFTUS FITZGERALD, M.D.T.C.D., at Twerton-on-Avon, Bath, on October 15, aged 30.

DUNNAGE, ARTHUR RICHARD, M.R.C.S., at Anbury House, Surbiton, on October 15, aged 32.

GARROD, ALFRED HENRY, M.A., F.R.S., eldest son of A. B. Garrod, M.D., F.R.S., at 10, Harley-street, on October 17, aged 33.

HODSON, CHARLES FREDERICK, eldest son of Charles Frederick Hodson, F.R.C.S., of The Chantry, Bishop Stortford, at the residence of Dr. Rickards, Hunter's-hill, Sydney, New South Wales, on August 20.

LEARED, ARTHUR, M.D., F.R.C.P., M.R.I.A., at 12, Old Burlington-street, on October 16.

PEARCE, ELIZABETH, wife of Charles T. Pearce, M.D., late of Croydon, on October 14, aged 74.

THOMSON, AGNES LOUISA, daughter of W. Thomson, M.D., at 16, Elgin-road, Addiscombe, on September 13.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

EVELINA HOSPITAL, SOUTHWARK-BRIDGE-ROAD, S.E.—Physician to Out-Patients. Candidates must be Fellows or Members of the Royal College of Physicians, or must undertake to become such within six months. Applicants are requested to send in their applications, with testimonials, to the Committee of Management, on or before November 6.

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N.—House-Surgeon. Candidates must be Members of the Royal College of Surgeons. Applications, with copies of testimonials, to be sent to the Secretary, on or before November 5.

HOSPITAL FOR WOMEN, SOHO-SQUARE, W.—Assistant-Physician. Candidates must be graduates in medicine of some recognised University, and Members of the Royal College of Physicians, London, or must become so within twelve months of their appointment. Applications to Mr. David Cannon, Secretary, on or before November 12.

KENT AND CANTERBURY HOSPITAL.—Assistant-Surgeon and Dispenser. Candidates must be unmarried and not more than fifty years of age; they must be registered under the Medical Act as legally qualified to practise, and have been accustomed to the dispensing of medicines. Applications, with testimonials, to be sent to the Secretary, on or before Thursday, October 30, at twelve o'clock.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Candidates must be doubly qualified and duly registered, and will be required to visit outdoor patients, and to undertake the dispensing. Applications to be sent to the Chairman of House Committee, Macclesfield Infirmary, on or before October 27.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD, E.C.—House-Physician. The office is tenable for one year, and an allowance of £80 is made in lieu of board. All other information may be had on application to Mr. C. Lowther Kemp, Secretary.

ST. MARYLEBONE GENERAL DISPENSARY, 77, WELBECK-STREET, CAVENDISH-SQUARE.—Honorary Physician. Candidates must be graduates in medicine of one of the Universities in the United Kingdom, and not engaged in the practice of midwifery or pharmacy. Applicants are invited to attend personally, with written applications and testimonials, at the Dispensary, on Wednesday, November 5, at five p.m.

UNION AND PAROCHIAL MEDICAL SERVICE.

*. The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Chelmsford Union.—Mr. A. H. Orpen has resigned the Third District; area 6414; population 3598; salary £83 per annum.

Pontypool Union.—Mr. F. E. Pearce has resigned the Pontypool District; population 10,000; salary £45 per annum.

Tiverton Union.—Mr. W. F. Terry has resigned the Eastern and Western Districts; area 17,491; population 10,024; salary £140 per annum.

Wetherby Union.—Mr. J. S. Wesley has resigned the Wetherby District and the Workhouse; area 17,016; population 3854; salary £32 per annum; salary for Workhouse £25 per annum.

APPOINTMENTS.

Barnsley Union.—Charles Octavius Rowley, M.R.C.S. Eng., L.S.A. Lond., to the Second District.

Bethnal-green Parish.—Charles Richard Johnstone, M.R.C.S. and L.S.A. Lond., to be Assistant Medical Officer at the Workhouse.

Fareham Union.—William Frederick Brooke, M.R.C.S. and L.S.A. Lond., to the Titchfield District.

Kingsbridge Union.—John Elliot, M.R.C.S. Eng. and L.S.A. Lond., to the Workhouse.

Pateley Bridge Union.—George Lumsden, B.M. & M.C. Glasg., to the Northern and Central District and the Workhouse.

Titchhurst Union.—Frederick Henry Corbyn, M.R.C.S. Eng. and L.R.C.P. Edin., to the Hurst Green District.

Tiverton Union.—Edward Morgan Puddicombe, M.R.C.S. Eng., to the Thorverton District.

Watford Union.—Alexander Dalton Murray, M.B., M.C., and L.R.C.P. Edin., to the Rickmansworth South District.

Wigan Union.—Robert Hartley, M.R.C.S. Eng., L.R.C.P. Edin., to the Pemberton District.

Wisbech Union.—Hannibal H. Sheppard, M.R.C.S. Eng., to the Eleventh District.

QUEEN'S UNIVERSITY IN IRELAND.—At the annual meeting of the Senate of the University held in St. Patrick's Hall, Dublin Castle, the following degrees in Medicine and Surgery were conferred, and diplomas in Midwifery were granted:—*Degree of Doctor of Medicine, honoris causâ.*—Randle Wilbraham Falconer, D.C.L., M.D.; Denis Charles O'Connor, A.B., M.B. *Degree of Master of Surgery, honoris causâ.*—William Mac Cormac, M.A., M.D. *Degree of Doctor of Medicine: First Honour Class.*—Jas. Barron, B.A., Belfast; W. E. Ashley Cummins, Cork; Sinclair White, Galway. *Second Honour Class.*—J. Wm. U. Macnamara, Galway; Robt. Mowbray, Belfast; John Acheson, Belfast; Thomas M. Corker, M.A., Cork; G. H. Desmond Gimlette, Belfast; Myles Wm. O'Reilly, Galway; T. Taylor Reynolds, Galway; John Smyth, Galway; Samuel A. K. Strahan, Belfast; T. Kennedy Wheeler, Belfast; Henry K. Allport, Cork; Meles H. C. Atkinson, Galway; W. Atkinson, Galway; Aug. H. Bampton, Cork; J. W. Beatty, Galway; Samuel Dickey, Galway; John E. Dowling, Cork; John Eadis, Belfast; Alexander C. Fraser, Galway; James Geraghty, Cork; Hugh Greany, Cork; Edward Hanly, Galway; Patrick C. Hickey, Cork; James F. Holland, Cork; John Hosford, Cork; John E. Lane, Cork; Samuel G. Levis, Cork; Henry M'Cormick, Galway; John J. M'Cormick, Galway; Samuel M. Malcomson, Belfast; John Martin, Galway; And. S. Mitchell, Galway; Chas. A. P. Mitchell, Galway; George R. O'Donovan, Cork; Thomas O'Kelly, Galway; Alexander C. Suffern, Belfast; John Vint, Belfast; John Watson, Belfast; David L. Williams, Cork; William James Cowden, Belfast; Joseph Crowley, Cork; Thomas Dorman, B.A., Cork; Thomas P. Madden, Galway; Charles Magill, Belfast; Robert Mitchell, Galway; Alexander Sharpe, Belfast; Jacob Thomas Shipsey, Cork; John Simpson, Belfast; William Smyth, Belfast; Horace R. Townsend, B.A., Cork; James Wilson, Belfast; William Mussen Young, Belfast. *Degree of Master in Surgery.*—John Acheson,

Belfast; Henry K. Allport, Cork; Augustus H. Bampton, Cork; James Barron, B.A., Belfast; William Henry Bracken, M.D., Belfast; Thomas M. Corker, M.A., Cork; W. E. Ashley Cummins, Cork; Samuel Dickey, Belfast; John E. Dowling, Cork; G. H. Desmond Gimlette, Belfast; Hugh Greany, Cork; Edward Hanly, Galway; Samuel M. Malcomson, Belfast; Charles A. P. Mitchell, Galway; Robert Mowbray, Belfast; T. Taylor Reynolds, Galway; John Smyth, Galway; Samuel A. K. Strahan, Belfast; Alexander C. Suffern, Belfast; Horace R. Townsend, B.A., M.D., Cork; Sinclair White, Galway; David L. Williams, Cork; A. Osmond Geoghegan, Galway; Gilbert Kirker, M.D., Belfast; John M'Kinlay, M.D., Galway; John F. Tuohy, M.D., Cork; Joseph Crowley, Cork; Thomas Dorman, B.A., Cork; Thomas P. Madden, Galway; Charles Magill, Belfast; Robert Mitchell, Galway; Alexander Sharpe, Belfast; Jacob Thomas Shipsey, Cork; Thomas M. O'Brien, M.D., Galway. *Diploma in Midwifery.*—John Acheson, Belfast; Henry K. Allport, Cork; James Barron, B.A., Belfast; Henry Bingham, M.D., Belfast; Thomas M. Corker, M.A., Cork; W. E. Ashley Cummins, Cork; Samuel Dickey, Belfast; Hugh Greany, Cork; John J. Hartnett, M.D., Cork; John Hosford, Cork; Henry M'Cormick, Galway; John J. M'Cormick, Galway; Samuel M. Malcomson, Belfast; John Martin, Galway; Charles A. P. Mitchell, Galway; R. Mowbray, Belfast; M. M. O'Reilly, Galway; John Smyth, Galway; Samuel A. K. Strahan, Belfast; Alexander S. Suffern, Belfast; T. Kennedy Wheeler, Belfast; Sinclair White, Galway; David L. Williams, Galway; Robert Beattie, M.D., Belfast; Gilbert Kirker, M.D., Belfast; Daniel Riorden, M.D., Galway; John Wilson, M.D., Belfast; Joseph Crowley, Cork; Thomas Dorman, B.A., Cork; John Simpson, Belfast; William Smyth, Belfast; Horace R. Townsend, B.A., Cork. At the same meeting the Peel Exhibitions of £20, and of £15 a year, awarded at the First University Examination in Medicine, were granted to John G. Bell, Belfast, first; and to William E. Hadden, Cork, second. Each exhibition is tenable for two years. The Peel Prize in composition, limited to undergraduates in medicine, was awarded to Robert Shore, M.A., Galway.

THE drainage scheme proposed by the Rivers Committee of the Manchester Corporation, which was to comprehend the surrounding townships, was considered at a conference of the Local Boards recently held in the district. A resolution was passed declaring it to be inexpedient to adopt the Manchester scheme on account of the enormous cost it would involve; and the meeting further resolved to memorialise the Local Government Board to suspend the operation of the Rivers Pollution Act for the present, as regards the districts represented at the conference.

REMOVAL OF GLANDS OF AXILLA WITH TUMOURS OF THE BREAST.—Lecturing at La Pitié on a case of amputation of the breast, Prof. Verneuil observed that sometimes the indurated glands extend very far under the pectoralis, where it would be difficult, as in this case, to follow them. He therefore made at the anterior edge of the axilla a section of the pectoralis major by means of the linear écraseur, thus rendering the search for the glands much easier. In this way this thick muscle was divided without giving rise to any bleeding, and the search was easily pursued. These glands, excepting those situated at its outer border, are chiefly situated along the vessels, and especially along the axillary veins in the deeper-seated regions. It is especially in removing these deep-seated glands that we have to fear hæmorrhage from the axillary vein—hæmorrhage which is easily and rapidly produced on the slightest detachment of the glands, even when the use of a bistoury is abstained from. It is not the vein itself which is wounded, but every gland is connected with this by means of a short venous branch with a relatively large calibre. On detaching the glands by the fingers or a blunt instrument this vein of the ganglion becomes torn, and bleeding is produced, owing to the absence of valves, just as if the principal trunk were injured. It is impossible to find this little branch to tie it, and the ligature of the axillary vein should be practised at two points, as bleeding takes place at both ends of the divided vessel. Difficult as this proved in this case, it would have been infinitely more so if it had to be done under the great pectoral, in a wound inundated with the blood. The operation is therefore greatly facilitated by the previous division of the muscle.—*Gaz. des Hop.* October 16.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the annual stated meeting of the College held on St. Luke's Day, October 18, 1879, the following officers were elected for the ensuing year:—*President*: Dr. Henry H. Head. *Censors*: Dr. Fleetwood Churchill (Vice-President), Dr. Walter G. Smith, Dr. John Hawtrey Benson, Dr. Stephen M. MacSwiney. *Additional Examiners*: Dr. Duffey, in Medicine; Dr. J. W. Moore, in Forensic Medicine and Hygiene; Dr. Macan, in Midwifery; Dr. W. G. Smith, in Anatomy; Dr. Duffey, in Chemistry; Dr. J. W. Moore, in Materia Medica; Dr. Purser, in Physiology. *Registrar*: Dr. J. Magee Finny. *Treasurer*: Dr. Aquilla Smith. *Examiners in Midwifery*: Dr. Edward B. Sinclair and Dr. Arthur V. Macan. *Professor of Medical Jurisprudence*: Dr. Robert Travers. *Representative on the General Medical Council*: Dr. Aquilla Smith. *Agent to the Trust Estates*: C. N. Townshend, Esq. *Law Agents*: Messrs. S. Gordon and Son. The following were elected to the Fellowship:—Reuben Joshua Harvey, M.D. Dub. 1873, L.K. & Q.C.P.I. 1876; John Rutherford Kirkpatrick, M.B. Dub. 1855, L.K. & Q.C.P.I. 1859; Francis John Boxwell Quinlan, M.D. Dub. 1862, L.K. & Q.C.P.I. 1859.

A FIRE broke out one evening last week in the west tower of Woodike Lunatic Asylum, Lennie, near Glasgow. It was caused by the scullery chimney taking fire, and igniting a wooden cupola surmounting the tower. The fire brigade of the institution and a detachment of the Glasgow brigade, which were very soon upon the spot, succeeded in confining the flames to the tower, which has been completely gutted. There were 500 inmates in the Asylum at the time of the fire, but fortunately no one was injured. The damage is estimated at about £6000.

PROF. DOHRN'S OVARIOTOMIES.—In the *Deutsche Med. Woch.* (October 4), Prof. Dohrn of Marburg furnishes a tabular view of his last ten cases of ovariectomy, performed between November, 1878, and June, 1879. They all recovered, and in the last eight Lister's procedure was employed. He has now performed the operation thirty-five times, with thirty recoveries. He has never employed the clamp or drainage. The five fatal cases occurred at early periods of the series, and the last twelve cases have all recovered.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Scotus.—The opening of the new Royal Infirmary, Edinburgh, is to take place on Wednesday, the 29th inst.

The Medical Officers for India.—It is announced that the Indian Government have applied to the Secretary of State to expedite the despatch of the newly appointed medical officers for India.

Dangerous Confections.—The public analysts of Glasgow have reported to the Town Council that on examining some confections they found the face of an imitation watch to contain a dangerous quantity of strychnine.

The Speculative Builder again.—At a meeting of the Liverpool Health Committee, last week, Dr. Taylor reported that in the neighbourhood of Everton builders were using for mortar a mixture of street-sweepings "largely made up of manure." This was used for plastering the walls of dwelling-houses. No nuisance had yet arisen, and therefore he could not interfere, but "he was certain a nuisance would arise, and he should then take action." This is another instance of the defects of the Public Health Act.

Suicide of a Scotch Medical Man.—A medical man belonging to or connected with Greenock, who recently went to Newcastle from Staffordshire to seek an engagement as doctor's assistant, was found a few days since in his bedroom at his lodgings, lying insensible on the floor. He had poisoned himself. Near him was found a note addressed to his wife in Glasgow, in which he requested to be buried in the Greenock Cemetery. It was stated at the inquest held on the body that the deceased had lost £3000 by the failure of the City of Glasgow Bank.

The Playgrounds of the London School Board.—We are glad to notice that at the last meeting of the London School Board a special committee was appointed to consider to what extent, and under what regulations, the Board may, either with or without the co-operation of voluntary societies, open the playgrounds of the School Boards on Saturdays and out of ordinary school hours. We hope the Board will feel able to modify the present restrictions as to the opening of these playgrounds for the recreation of children. They are a boon of which parents have shown their great appreciation.

St. John's Ambulance Association.—Classes to teach first aid to the injured have lately been established at Waltham Abbey and Shoburyness, and others are about to be opened at Liverpool, Hereford, Cheltenham, Bristol, and Twickenham.

Invalids.—The climate of Mont Dore is very variable, storms of rain and thunder coming on suddenly, and in some seasons frequently. The variations of temperature during the months of June, July, and August are sometimes very considerable, the maximum being 86° Fahr., and the minimum 37° Fahr. The average temperature in August is 57° Fahr. The air is, no doubt, favourable to most invalids; it is decidedly a dry air. The season, however, of fine weather is often extremely short. July and August are the finest months.

Mad Dogs: a Legal Defect.—The *Manchester Guardian* remarks that the increase of cases of hydrophobia has led to attention being drawn to a flaw in the Act of Parliament, 34 and 35 Vic., cap. 56, the third section of which empowers the local authority to make an order placing such restrictions as they think expedient on dogs in their jurisdiction only "if a mad dog, or a dog suspected of being mad, is found within it." A discretionary power should be given to magistrates to make restrictive orders without having to wait, as at present, until a case of rabies in a dog has actually appeared, or there is sufficient ground for suspecting that it has done so within the district in which they usually act. Probably before any order could be made the infection would spread wider. The public safety evidently renders an amendment of the law a necessity.

Medico-Legal Society, New York.—At the annual election of officers of this Society, on October 1, Dr. R. J. O'Sullivan delivered an address on the subject of "State Medicine: the Relations of the Professions, and the Responsibility of Civic and Educational Authorities in the Promotion of Public Health." He said that they in that country treated their stomachs in such a manner that they are fast becoming a nation of dyspeptics. The late pedestrian match was decided not by coaching, but by the stomach. The Yankee bolts his food like a boa-constrictor. The lecturer then alluded to the defective ventilation in their public buildings, and, in speaking of the deplorable sanitary condition of the public schools, said that the Press rendered powerful aid in the work of amelioration by sending out members of its staff, who obtained damaging statements from teachers, trustees, and other officials. The address was considered so important that discussion on it was postponed to a future meeting.

Ignoring the Law.—It is to be regretted that many local authorities exhibit considerable reluctance to institute proceedings against offenders under the Sale of Food and Drugs Act. Lately a member of the West Ham Local Board made a complaint to the Local Government Board on this subject. He stated that his Board had caused samples of butter to be analysed by the county analyst, who had condemned some of the samples, and recommended that legal proceedings should be taken against the sellers of them. The Local Board, however, ignored the suggestion and the reports made by their analyst, resolving not only not to prosecute, but also determined that no more samples should be collected for analysis. The encouragement thus offered to sophistication induced the member to ask whether the Local Government Board had power to interfere in the matter.

Street Accidents: Lamps to Public Vehicles.—Wooden pavement is now so generally superseding the old granite carriage-ways, that the noiseless approach of vehicles in our dimly-lighted thoroughfares at night renders it absolutely necessary (to avoid collisions and danger to foot-passengers) that public vehicles should use lamps according to the provisions of the law. Probably, had lamps been used, a recent fatality at Rutland-gate might have been prevented. At the inquest on the unfortunate man in question—a cabman—it was stated that cries of "Help," and for assistance to take the deceased from under a cab, attracted the attention of a passer-by, who found the deceased beneath the cab which had been upset. The pavement at the spot is rather high, and the night being foggy, the deceased, it is supposed, drove against it, the rebound causing the cab to turn over—a casualty which might have been avoided if lamps had been used. The unfortunate man was taken to St. George's Hospital and found to be dead. A verdict of accidental death was returned.

Urban and Rural Sanitary Works.—The Corporation of Margate have purchased, for the supply of the town, the Waterworks Company's property for £59,000.—The Surrey magistrates have resolved to provide an additional lunatic asylum for the county at a cost of £198,640.—The Glamorganshire magistrates have decided to construct two new filtration beds, and make other improvements in the water-supply of the County Lunatic Asylum near Bridgend, at a cost of £800.—The question of the purchase by the Hastings Town Council of the subscription gardens at St. Leonards for public recreation purposes has at length been finally settled by the Local Government Board sanctioning the acquisition of the land at the proposed cost of £70,000.—The Biggleswade Rural Sanitary Authority are building a contagious diseases hospital at a cost of about £2000.—The Town Council of Wells city are considering a scheme for the disposal of the town sewage at a cost of about £1800.—The Waterworks Company of Peel, Isle of Man, have taken steps to increase the water-supply and to add to its purity. A subsiding reservoir is about to be constructed at an elevation of 152 feet above Peveril-terrace, the highest tenements in Peel.

COMMUNICATIONS have been received from—
 Mr. J. HAMILTON CRAIGIE, London; Mr. JONATHAN HUTCHINSON, London; Mr. EDWARD BOND, London; Dr. TYNDALL WATSON, London; THE REGISTRAR OF APOTHECARIES' HALL, London; Messrs. A. BASSETT SHARP, London; Dr. FRANKLAND, London; Mr. GEORGE FIELD, London; Mr. N. W. PARKER, London; THE CLERK OF THE OAKHAM UNION; THE EDITOR OF "IRON"; Dr. WOAKE, London; Mr. CHARLES EGAN, King William Town, South Africa; THE SECRETARY OF THE HOWARD ASSOCIATION; THE ASSISTANT-SECRETARY OF THE PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN; Mr. N. CLEMENT LUCAS, London; THE REGISTRAR-GENERAL, Edinburgh; THE EDITORIAL SECRETARY OF THE SOCIETY FOR PROMOTING CHRISTIAN KNOWLEDGE; Dr. J. W. MOORE, Dublin; Dr. J. S. BRISTOWE, London; Dr. W. N. GOWERS, London; Dr. J. F. CHURCHILL, London; THE SECRETARY OF KING AND QUEEN'S COLLEGE IN IRELAND; THE SECRETARY OF THE HARVEIAN SOCIETY; Dr. VINEN, London; Mr. JOHN CHATTO, London; Mr. T. M. STONE, London.

BOOKS AND PAMPHLETS RECEIVED—
 Revue des Sciences Médicales, edited by G. Masson, Esq.—St. George's Hospital Reports for 1877-78, vol. ix.—Metropolitan Water Companies' Report for September, 1879—Edward Stanford's Atlas of Anatomy—Poems, by Wm. Frank-Smith, M.B., with Memoir by Dr. Pye-Smith—The Riviera, by Dr. E. I. Sparks—Glancoma, by Priestley Smith, M.R.C.S.—Otorrhœa, by Douglas Hemming, F.R.C.S. Eng.—Monthly Report on the Health of the Parish of St. Marylebone, by John Whitmore, M.D.—On the Causes of Locomotor Ataxy, by Jonathan Hutchinson, F.R.C.S.—Report of the College of Physicians of Philadelphia, vol. iv.—Washington National Board of Health Bulletin—Report of the Chemical Analyser to Government, Bombay, for the Year 1878-79—A System of Midwifery, by Dr. Leishman—Observations and Comments on "Certain Convulsive Disorders," by Henry Day, M.D.—Manuals of Health, by F. E. B. François de Chaumont, M.D.—Vaccination Tracts—Annals of Chemical Medicine, by J. L. W. Thudichum—Twelve Clinical Tracts, by L. J. Hobson, M.B.—B.S. Lond.—Considérations sur la Fièvre Intermittente—On the Electrical Excitability of the Skin, by A. D. Watteville, M.A.—Smith and Co.'s Travelling Lists—Annual Medical Report of the Madras Government Lying-in Hospital for the Year 1878—Water for Nothing, by Dr. Shirley Hibberd, F.R.H.S.—The Diagnosis of Diseases of the Spinal Cord, by W. R. Gowers, M.D., F.R.C.P.

PERIODICALS AND NEWSPAPERS RECEIVED—
 Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Louisville Medical News—Nature—El Siglo Médico—Rêvue Médicale—Boston Medical and Surgical Journal—Boston Journal of Chemistry—American Bookseller—Anti-Vivisectionist—Index Medicus—New York Medical Journal—Detroit Lancet—New Preparations—Michigan Medical News—Gny's Hospital Gazette—Journal of Neurology.

APPOINTMENTS FOR THE WEEK.

October 25. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

27. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Mr. Royes Bell will show a Case of Old-standing Ununited Fracture of Patella treated by Incision into Joint and Wiring Fragments together. Dr. S. O. Habershon, "On the Passage of Gall-Stones." Dr. Drysdale, "On the Mortality of the Rich and the Poor."

28. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Report of the Committee on Suspended Animation, and the Comparative Merits of the Method used by the Royal Humane Society and that of Dr. Benjamin Howard. Dr. Miller Ord and Dr. Brodie Sewell, "On Large Dermoid Cyst in the Abdomen of a Man." Dr. Miller Ord, "On a Malformation of the Genital Organs of a Man." Mr. W. Pye, "Removal of the Diaphysis of the Tibia for Acute Necrosis."

29. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

HUNTERIAN SOCIETY (London Institution), 8 p.m.: Dr. F. C. Turner will relate "A Case of Myocarditis." Mr. Gilbert, "A Case of Fever." Mr. G. T. B. Stevens will exhibit a Peculiar Foetus.

30. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

31. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 18, 1879.

BIRTHS.

Births of Boys, 1339; Girls, 1238; Total, 2637.
 Average of 10 corresponding years 1869-78, 2333.8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	778	721	1499
Average of the ten years 1869-78 ...	707.1	658.4	1365.5
Average corrected to increased population ...	...	...	1453
Deaths of people aged 80 and upwards ...	...	...	44

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West ...	561359	...	3	10	2	4	...	3	1	7
North ...	751729	...	7	20	7	6	...	5	...	10
Central ...	334369	...	3	3	...	2	...	2	...	2
East ...	639111	...	4	18	1	4	...	5	1	16
South ...	967692	1	9	22	4	11	1	7	1	13
Total ...	3254260	1	31	73	14	27	1	22	3	48

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29.999 in.
Mean temperature ...	...	...	...	...	...	45.0°
Highest point of thermometer ...	...	...	...	...	...	56.4°
Lowest point of thermometer ...	...	...	...	...	...	33.7°
Mean dew-point temperature ...	...	...	...	...	...	41.5°
General direction of wind ...	...	...	...	...	...	Variable.
Whole amount of rain in the week ...	...	...	...	...	...	0.02 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Oct. 18, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Oct. 18.	Deaths Registered during the week ending Oct. 18.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		In Inches.	In centimetres.
London ...	3620868	48.0	2637	1499	56.4	33.7	45.0	7.22	0.02	0.06
Brighton ...	105608	44.9	75	25	58.6	32.0	45.8	7.67	0.22	0.56
Portsmouth ...	131821	29.4	83	32	57.0	35.0	47.2	8.44	0.00	0.00
Norwich ...	85222	11.4	61	42	55.0	39.0	45.4	7.44	0.28	0.71
Plymouth ...	74293	53.3	37	28	60.1	34.0	49.6	9.78	0.03	0.08
Bristol ...	209947	47.2	143	65	57.2	27.5	44.6	7.01	0.21	0.53
Wolverhampton ...	75100	22.1	69	20	54.8	30.2	44.7	7.06	0.13	0.33
Birmingham ...	388884	46.3	317	135	...	...	...	...	...	...
Leicester ...	125622	39.3	94	47	55.2	34.0	45.6	7.56	0.17	0.43
Nottingham ...	169396	17.0	129	63	56.7	33.2	45.7	7.61	0.13	0.33
Liverpool ...	539333	103.3	424	266	58.1	33.6	47.0	8.33	0.20	0.51
Manchester ...	361819	84.3	233	153	...	...	...	...	...	...
Salford ...	177349	34.4	130	77	...	...	...	...	...	...
Oldham ...	111318	23.9	77	39	...	...	...	...	...	...
Bradford ...	191046	26.5	131	81	54.8	32.8	45.3	7.39	0.25	0.63
Leeds ...	311860	14.5	212	103	57.0	35.0	46.0	7.78	0.20	0.51
Sheffield ...	237138	15.1	240	128	57.5	34.2	45.9	7.72	0.12	0.30
Hull ...	146347	40.3	97	65	58.0	34.0	44.0	6.67	0.45	1.22
Sunderland ...	114575	41.4	68	42	62.0	36.0	47.2	8.44	0.34	0.85
Newcastle-on-Tyne ...	146948	27.4	110	48	...	...	...	...	...	...
Edinburgh ...	226075	53.9	139	73	56.3	30.0	42.7	5.95	0.65	1.65
Glasgow ...	578156	95.8	349	179	56.3	32.0	46.1	7.84	0.17	0.43
Dublin ...	314666	31.3	179	197	56.5	32.0	46.6	8.12	0.19	0.48
Total of 23 Towns in United Kingdom	8502896	33.6	6034	3412	62.0	30.0	45.8	7.67	0.21	0.53

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30.00 in. The highest reading was 30.39 in. at the beginning of the week, and the lowest 29.60 in. on Friday afternoon.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ADDRESS TO THE SOCIETY OF MEDICAL OFFICERS OF HEALTH,

On the Opening of the Session 1879-80.

By JOHN SYER BRISTOWE, M.D., F.R.C.P.,

Physician to St. Thomas's Hospital;
President of the Society.

GENTLEMEN,—My first duty on addressing you from the chair to which you have elected me is to thank you for the unexpected and unmerited honour which you have been pleased to confer upon me.

I must acknowledge that when it was intimated to me that, on the retirement of my friend Dr. Thomas Stevenson from the presidency of this Society, I might possibly be nominated as his successor, my first inclination was to decline the prospective honour; for although I was an officer of health of many years' standing, and had performed the duties of my appointment conscientiously, I had been a very perfunctory member of this Society; I had taken little or no part in sanitary matters outside or beyond my limited official sphere; and I could not pretend as a sanitary authority to measure myself with the distinguished men who had hitherto presided over your meetings, or even with many of those working members on whom, more than on presidents, depend the continued usefulness and reputation of the Society. I soon saw reason, however, to regard the matter in another light. I felt that if my colleagues on due consideration should come to the conclusion that as President I could be of any use to the Society, it was my duty to them and to the Society to place my services at their disposal. I bethought me of the vast importance of sanitary medicine, of the difficulties which attend its investigation, and of the many perils by which, until it has emerged from its period of infancy, its practice must be beset, and I felt that, at any rate so long as I was one of its ministers, I was morally bound, when called upon to do so, to act up to the responsibilities attaching to my position, and to assist to the best of my ability in upholding the importance and dignity of our common pursuit. And lastly, I called to mind the fact that the first occupant of this chair was my great master, John Simon, the Gamaliel at whose feet I have sat, the man who for many years has been my teacher and my friend, and I experienced a sentimental pleasure in the thought that my name might be associated with his in the records of the Society. I might, had I needed any further inducement to accept the presidency, have recalled the fact, as I believe it to be, that I was the first, some three or four and twenty years ago, to take steps to call this Society into existence. I played a very insignificant part, however, in the affair. I had some preliminary correspondence; I attended the first meeting; I proposed a resolution in an unimportant speech; and then, I am ashamed to say, I left it to others to make the enterprise a success, while I retreated into that obscurity which my modesty, or rather perhaps my laziness, made most congenial to me, and deserved.

No one, gentlemen, who gives any serious thought to the subject—least of all the physician who knows how futile in most cases his efforts are to cure the diseases which come under his care, and the surgeon who only too often finds his skill useless to save, or has to content himself with trimming up or patching the maimed fragments of humanity—can hesitate to acknowledge that the prevention of diseases and injuries has far higher claims to be regarded as a science, and to the gratitude of mankind, than the mere curative or palliative treatment of diseases or injuries which have already accrued. But prevention, in relation to the conditions which determine sickness, injury, and premature death, is a very wide subject, and covers a much more extensive area than that with which we, as medical officers of health, are directly concerned.

I have to acknowledge, not for the first time, that I am one of those who look with a good deal of scepticism on most that is generally inculcated with regard to the medicinal treatment of disease. I do not for one moment mean to imply

that the physician is powerless in the presence of disease; and that he should sit with folded hands while it takes its course unchecked towards recovery or death. I believe that there are many diseases in which remedies, judiciously applied, are of inestimable value; and that there are periods in most diseases when appropriate medicinal treatment is attended with important beneficial results. It is impossible to deny the efficacy of quinine or arsenic in the treatment of ague; of mercury or iodide of potassium in the treatment of syphilis; of colchicum in the treatment of gout; of salicylic acid in the treatment of acute rheumatism; or of iron in the treatment of chlorosis. It is impossible, also, not to recognise the utility of purgatives or diaphoretics in cases of uræmic poisoning; of digitalis and iron when the heart is acting feebly and irregularly; of opium and its preparations in relieving pain or spasm or procuring sleep; of quinine or other tonics in promoting convalescence, especially from diseases which have wrought debility and emaciation. And the list might be largely increased. But I am satisfied that many affections which we profess to cure, and for the treatment of which definite rules are laid down in books, run their allotted course in spite of all our remedies; and that in a very large proportion of cases all the nicely balanced combinations of drugs which are administered in the form of pills and potions, might, for any good they do, as well be thrown to the dogs. But, gentlemen, although I take what may, perhaps, be an unduly sceptical view of the value of the direct medicinal treatment of diseases, I am, on the other hand, quite satisfied of the immense benefit to be derived from the expectant treatment of diseases, applied with forethought and knowledge. I regard it as one of the chief claims of pathology to the high place it holds among the sciences on which the practice of medicine is built, that the knowledge which it gives of the nature, of the progress, and of the tendency of diseases, and of the various complications to which they are liable—in other words, of the natural history of diseases—enables us to foresee the special dangers to which those who are suffering from particular diseases are exposed, and, foreseeing, to guard against them, to counteract or prevent them. And I am satisfied that, as pathological knowledge advances, our powers in this respect will be largely if not indefinitely increased. The late Dr. Graves, looking back upon the labours of his life, held it to be his chief claim to the gratitude of mankind that "he had fed fevers"; and even, if my memory serves me, intimated a kind of wish that this fact might be inscribed upon his tombstone. But when Dr. Graves fed fevers, and expressed his own sense of the value of his achievement, he was ignorant of the fact that under the head of continued fever were comprised at least three different kinds of fever—each having its special cause, its special pathology, its special dangers, and demanding its special treatment. And certainly, whatever may now be thought in regard to the feeding of typhus and relapsing fever—which constitute two out of the trio—few at the present time would venture to follow Dr. Graves's dictum in the case of the remaining (namely, enteric) fever. Indeed, now that the pathology of enteric fever is understood, and now that it is recognised that the chief causes of its fatality reside in the ulceration of the bowels which attends it, in the persistence of diarrhœa and vomiting, and in the occurrence of hæmorrhage or perforation, our chief hopes of successful treatment are made to depend, not on feeding the patient in the sense in which Dr. Graves employed the term, but in so reducing and regulating his diet as to guard it from irritating the stomach and bowels and thus maintaining sickness and diarrhœa, or inducing either of the other accidents above referred to. I quote this, not for the sake of casting ridicule on Dr. Graves, whom I regard as one of the great lights in medicine, but because enteric fever affords an apt illustration both of the practical value of the progress of pathological science, and of the benefit to be derived in the treatment of disease from an exact knowledge of its tendencies and of the special dangers which attend it. But the remarks which I have made as to enteric fever apply, *mutatis mutandis*, to most other affections. We know that one of the chief dangers to which a scarlatinal patient is exposed is the super-vention of nephritis with albuminuria and dropsy; and consequently we take special precautions, and generally with success, either to guard against the occurrence of this complication, or to prevent it from attaining dangerous proportions. We know that when rheumatism attacks

young persons it is probable in a very high degree that cardiac inflammation will arise; and consequently, if we have even a very mild case of rheumatism in a child to deal with, we take the utmost care to avert the impending calamity. Again, we know that persons who are suffering from diabetes or Addison's disease are, even at a time when they seem to be in moderately fair health, peculiarly liable on exposure to cold, or after a little unusual fatigue, to fall rapidly into a condition of fatal collapse; and, if wise, we take measures accordingly; and many a life has been prolonged by such precautions, which otherwise would have been prematurely sacrificed.

These remarks, which might be indefinitely extended, apply only to expectant or preventive treatment in relation to the incidents and complications of diseases which have already been contracted, and to the claims which prevention has to be regarded as one of the essential factors in the scientific treatment of disease.

It is an easy transition from this subject to that of the prevention of diseases. Man, like all other living things born into this world, has, by an inexorable fate, a natural term put to his existence here. And few of us, probably even under the most favourable sanitary conditions, and protected from all accidental causes of death, could survive the normal wear and tear of life for a much longer period than the three score years and ten or four score years which, on old authority, is the span allotted to us. Death from the natural decay of our tissues and vital powers which attends old age is not preventable. But it is difficult to say as much of any of the diseases or accidents which shorten life, or interfere with our due enjoyment of it. It cannot be pretended, of course, that the child born with a syphilitic taint can be protected absolutely from the consequences of its fatal inheritance, or that the scions of families in which nervous diseases or scrofula prevails can in all cases avoid the consequences of that tendency to insanity or to consumption which they have derived from their ancestors, equally with their bodily conformation and their mental attributes. Neither can it be pretended that the sot, even after he has given up his besetting vice, can always escape the visceral lesions which habitual tippling usually entails; or that the man who has been too long exposed to hardships and over-work shall not suffer the natural consequences of his intemperate and hard life; or that famine, starvation, poverty, or the use of poisonous or unwholesome food, will not be followed by the penalties due to the special infraction—unwitting, or at the time unavoidable, though that infraction be—of the hygienic terms on which the lease of life is held. Neither, again, can it be asserted that those who frequent marshy districts can escape ague; or that those who live in alpine valleys can be free from liability to goitre and cretinism; or that unprotected persons who mingle with their fellows shall not from time to time contract some one or other of the infectious diseases which prevail among them. But, on the other hand, we can safely declare that if the syphilitic parent had not contracted syphilis, his children would have escaped their heritage of woe; that if persons who are insane or scrofulous were not to marry or beget children, and especially if they were to avoid marrying into families in which like proclivities exist, insanity and scrofula would undergo a large diminution; that if drunkenness were banished from among us, many of the diseases which now swell our mortuary tables would disappear; that if hardships and excessive labour could in any way be prevented, many of the maladies which now bring patients into our hospitals and destroy them before their time would be shorn of half their victims; that if want of food, or poisonous or unwholesome food, and poverty, could be counteracted or guarded against, deaths from rapid or from slow starvation would cease in great measure, and the mortality among the poor, and especially among the children of the poor, would be much less than it now unfortunately is; that if districts in which endemic diseases prevail were to be deserted, or if certain precautionary measures were adopted in regard to some of them, endemic affections would disappear to a large extent, or it may be absolutely; and lastly, that it is conceivable that infectious diseases amongst human beings, like the cattle plague among cows, might be stamped out.

I make these remarks, gentlemen, not to claim for preventive medicine a position which does not belong to it, nor to proclaim to the world that if sanitary doctors had

their way and their deserts all diseases would be swept away, all men would attain a good old age and drop like mellow apples from the tree, and doctors should out of mere gratitude be clothed in purple and fine linen and fare sumptuously every day, but to maintain my thesis that all diseases are in a sense preventable, and that if we trace them back to their original causes and attack them there, we shall, even if we do not stamp diseases out, at any rate reduce their frequency and severity, and by so much render human life the happier and the longer.

It is scarcely necessary to repeat to you, of all men, gentlemen, that it is the knowledge of the causation of disease which gives us the best clue to the prevention of disease, and enables us, as a rule, to grapple with it most successfully. But the subject of etiology, although one of great interest, is also one of extreme difficulty, and one in respect of which, while much has been done, much more remains to do; and, indeed, much of what seems to be already known is probably rather to be regarded as provisional or approximate than absolutely true. It is a subject, too, in the investigation of which medical officers of health are taking, and ought to take, a leading part. I will very briefly advert to some of the more important or interesting points in connexion with this subject and its application to preventive medicine. That a large number of diseases are inherited, or that a proclivity to them is inherited, is beyond dispute, and that the tendency to transmit such diseases is largely increased when families in whom the same affections prevail amalgamate in marriage, and especially when the members of a diseased family intermarry, is a universally admitted fact. It is in this way that insanity, idiocy, epilepsy, hysteria, and many other nervous disorders, that scrofula in all its various phases, that carcinoma, that gout, that certain skin diseases, that many malformations, and that weaknesses of constitution or defects of mind,—which impart in the former case a readiness to contract certain diseases or to fall into premature decay, and in the latter case tendencies to many of those varieties of foolish or criminal conduct which make persons a cause of continued anxiety to friends, or lead them to the police-court, the prison, or the gallows,—are too often propagated. It is no crime in the father or the mother that such potentialities should reside in their respective reproductive elements; and it seems impossible by legislative enactments to prevent such persons from marrying and procreating morbid specimens of humanity. Still, we have reason to hope that as knowledge increases, and as the laws which determine the inherent healthiness or unhealthiness of offspring become more thoroughly understood and appreciated, marriages of consanguinity, and marriages between persons who, on the grounds above given, are manifestly unsuitable for one another, will become more and more rare.

Certain diseases are what are called endemic. They depend on causes which seem to be inherent in certain localities, and to be due to peculiar conditions or combinations of conditions pervading the soil, the water, or the atmosphere of these localities. Among the most typical of these may be included ague or malarious fever, goitre and cretinism, and dysentery. Now, it is needless to remind you that although the exact causes of those several maladies are unknown, we know enough, at any rate in regard to some of them, to enable us to deal with them more or less successfully, and so to prevent the prevalence of the maladies to which they give rise. Goitre and its congener, cretinism, appear to occur exclusively in the valleys of mountainous or hilly districts where the drinking-water is largely impregnated with certain combinations of earthy salts; and it is known that goitrous persons who remove from such districts in an early stage of the disease may be cured absolutely of it, and that the disease itself would probably cease if certain areas in which the disease prevails were to be deserted. It may be added that if the drinking-water of such districts were to be purified or brought from some other source, there is little doubt that both goitre and the idiocy which is associated with it would be eradicated. Ague is the peculiar disease of marshy soils. Where undrained or imperfectly drained marshes exist, all over the world, there ague in one or other of its forms prevails; and nowhere else, excepting in low-lying lands whose soil is saturated with water, and whose surface is alternately submerged and imperfectly dried, does ague originate, so to speak, spontaneously. It has been proved over and over again that by drainage marshy localities may be rendered perfectly innocuous. And nowhere, probably, has this been shown

more conspicuously than in our own metropolis. Nearly the whole of South London was once a vast marsh, and malarious disorders—ague and dysentery—were among the most fatal of its diseases. But for many years past both dysentery and ague have disappeared as endemic affections; and ague especially—so far, at any rate, as my own experience goes—is never now met with except in imported cases. It is scarcely necessary to say, gentlemen, that if goitre or ague or dysentery were to break out in an endemic form in any part of London, it would be owing to some sanitary default, and that the knowledge which we already possess in regard to the causation of these diseases would indicate the nature of that default, and at the same time the remedy. Other diseases besides those which I have enumerated occur endemically—some in regard to which we possess more or less valuable information, some in regard to which we know little or nothing. Nor must it be forgotten that many diseases which are infectious, and it may be epidemic, and many which are due to the operations of parasites, and others which are neither infectious nor parasitic, occur in an endemic form. I refer amongst others to enteric fever, to diphtheria, to Asiatic cholera, to trichinosis, to hydatids, and to the parasites which, in the West Indies, India, Egypt, and elsewhere, cause hæmorrhages from the urinary organs, chyluria, and one of the forms of elephantiasis. Possibly, we may hereafter have to include tubercular diseases, pneumonia, erysipelas, and other inflammatory disorders. At any rate, it will be admitted that endemic diseases, whether one takes the restricted or the extended view of them, afford a wide and extremely interesting field for observation, which promises in the future, as it has yielded in the past, a valuable harvest of sanitary fruit to those who labour in it, and for the benefit of mankind.

One of the most important classes of diseases is that which comprises the febrile and other disorders which are communicable from man to man, or from other animals to man, and which severally depend on some specific poisonous agent or virus, which multiplies in the body, and is discharged thence by various routes and in different ways, to plant itself in, and thus infect, other suitable organisms. These are mostly epidemic affections; but they include some of those which have just been referred to as tending at times to present more or less of an endemic or local character. I shall not stop to enumerate the diseases which I should be inclined to place in this class. But they are among those in which it is presumable that a knowledge of the nature and behaviour of their several specific causes should best enable us to deal with them preventively. They are also among those in regard to which the advance of pathological and sanitary science has effected most in this respect. Of infectious diseases some are imparted only by the direct inoculation of their contagium or specific virus. Of these, hydrophobia, glanders, and syphilis are the most conspicuous examples; and it might be supposed, from the comparatively coarse and visible way in which they are imparted, that they would prove easier to eradicate than probably all other diseases. Yet this is not the case. The history of our knowledge of syphilis is very interesting in relation to the present subject. It has probably prevailed from time immemorial. But it was shortly after the discovery of America that its ravages began to excite especial attention, and it was even believed that it had been introduced from that continent. But the precise mode of its introduction into the system was long unrecognised; and priests and bishops who suffered from it (for these and many others high in position were its victims) felt it no moral shame to acknowledge and to manifest the hideous ravages which it effected in their persons. At that time it was not recognised as a disease propagated solely by inoculation, and almost exclusively by sexual intercourse; and it was impossible under such circumstances that effectual measures could be adopted to prevent its spread. It was looked upon then, as cholera has been since, as a visitation from God, and a thing, therefore, to be dealt with only by prayer and fasting. But, gentlemen, the time arrived when its origin in impure sexual intercourse was suspected, and at the present day and for many years there has been no room for dispute on this point. But we have been gradually learning much more about this disease than our ancestors knew. They knew, of course, the mischief it inflicted on the sexual organs, and indeed exaggerated the mischief; and they knew the havoc it was wont to work upon the bones and limbs and features. But they did not know, as we now know, how the disease slowly and

silently leads to disorganisation of the internal organs; how it is the remote cause, in persons who have had it ever so lightly apparently, of disease of the brain, or of the heart, or of the arteries, or of the lungs, or of the liver, or of the kidneys, inflicting irreparable mischief and early death on its miserable victims; and how fruitful a cause it is of the maladies which are habitually received into hospitals and workhouses. Nor did they know, as we know, how in this respect the sins of the fathers are visited on the children: how many premature and still births, how much deformity and permanent weakness of constitution, how many specific visceral lesions, how much tuberculosis and scrofula, how much misery, and how great a mortality, occur amongst the children of syphilitic parents. And in the face of these glaring facts, we still find men, and women too, who regard themselves as philanthropists, whose liberality of sentiment leads them to preach and to uphold the equality of the sexes in all respects, and the right of man (not to inflict murder by the knife or by poison, not to steal the bread for want of which he is dying or the money by which he might save his starving wife and children from misery and ruin, but) to inflict without let or hindrance the awful penalty of a loathsome and pitiless disorder on the wife of his bosom, the children of his loins, or the frail victim of his passions. It certainly is a marvellous thing that there should still be persons who regard syphilis as a just retribution for our sins, and who deem it almost an impiety to endeavour by legislative measures to arrest its spread. It is even more marvellous than that obstinate ignorance and prejudice should be allowed, on payment of an occasional paltry fine, to aid in the perpetuation of small-pox by refusing to permit innocent children to share the benefits which Edward Jenner's discovery of the efficacy of vaccination has placed within easy reach of all mankind. I am satisfied that, knowing what we do of syphilis and small-pox, we are wrong not to take every means in our power, and the Legislature is doubly wrong not to endeavour by stringent legal enactments, to arrest the progress of these maladies. I confess that I cannot help thinking that no man who has once begotten a syphilitic child should be allowed henceforth to take part in the propagation of his species. There are at least two diseases—namely, Asiatic cholera and enteric fever—which are communicable mainly, if not alone, by means of the alvine evacuations. And it is in regard to our knowledge of the causes and means of prevention of these that recent sanitary science has been most conspicuously successful. When cholera first reached this country, in 1832, it was looked upon as syphilis had been looked upon some centuries ago—as a malady “which,” to use Lord Dundreary's expression, “no fellow could understand.” How it originated, how it spread, what its nature was, and what were its relations to other diseases, constituted an inscrutable mystery; and consequently numberless modes of treatment, and numberless modes of preventing its spread, were blindly suggested, blindly tried, and believed in with all the credulity of ignorance. In the next and succeeding European epidemics, however, observers of eminence, and among them certain belonging to our own body, conducted a series of researches which have proved, at any rate, that the chief part of the poison is contained in the intestinal discharges; that this poison, little infectious at the time of its escape, attains its chief virulence in the course of three or four days; and that the disease is propagated generally through drinking-water which has become contaminated with these discharges. The importance of these facts in relation to the prevention of cholera has now been demonstrated on a large scale in this country, and there can be no doubt that we have in our present sanitary arrangements a valuable means of keeping cholera epidemics in abeyance whenever hereafter they may unhappily reach our shores. Our knowledge of the causation of enteric fever is probably as accurate as that which we possess in regard to cholera. Within the present century, almost within the present generation, this fever was confounded with several others, and its cause and means of prevention were necessarily alike unknown. But now nothing is more surely established than that this disease is the product of faecal poisoning—probably not of the ingestion of healthy fæces, or even of fæces which have undergone more or less decomposition, but of fæces discharged from the bowels of those suffering from the disease. This clue to its causation once suggested, it has been interesting to watch how, of late years (again largely through the labours of the

school of sanitarians who have been educated under Mr. Simon's eye, and of medical officers of health), the unsuspected sources of this disease have been tracked to drinking-water directly contaminated with sewage, and to articles of diet which have been mixed or prepared with such water, and especially to milk which the vendors have unrighteously diluted with the contents of their filthy wells. It is needless to add that few diseases are more under the control of sanitary science than this widespread and ever dangerous affection. Most of the other infectious fevers are transmitted by the breath or by emanations from the surface of the body. As regards these our powers of prevention are, excepting in one or two instances, much less apparent, and I fear actually much less, than in the cases just considered. The main exception is small-pox, which may be prevented by previous vaccination. In most others, however, there are certain peculiarities in regard to the behaviour of the contagia, which become more or less serviceable to us in dealing either with isolated cases or with epidemic outbreaks. It is important to recollect, however, that probably in none of them can we prevent spread excepting by isolation and cleanliness, and that so-called disinfectants have probably no power in destroying their poisons, excepting so much of them as may be imbibed by articles of dress and such-like things which admit of being directly treated by the disinfecting agents. But the difficulty which applies to quarantine, and which induces many of our greatest sanitary authorities to regard quarantine as useless—namely, that there always remains some weak link in the chain of protection, through which the disease escapes—applies also here, and often renders futile all efforts to prevent contagion. It is not surprising that it should be so, even under the most favourable circumstances; it is certainly not surprising, therefore, that that should be our present experience, when the ignorant poor regard many of these diseases, as the over-religious do syphilis, in the light of a visitation from God, which it is impious to oppose; when most persons in whose families they occur are so thoughtless as they generally are in regard to the safety of their neighbours and friends; and when, even now, physicians and medical practitioners—who, one would suppose, ought to know better—continue to regard the most infectious of all infectious diseases as non-infectious; apparently for no other reason than that the very virulence of their infection causes them to be constantly present in our midst. There are many who even now believe that the poison of neither mumps, nor measles, nor whooping-cough can be carried by the doctor or the nurse from one patient to another; and especially there are many who regard whooping-cough, which is probably the most infectious of diseases, as utterly devoid of infectious properties.

Another class of affections over which we are gradually acquiring the power of prevention is that which is due to parasitic influence. It is within the recollection of most of us that the natural history of tape-worms and cyst-worms, and of some other animal parasites, has been successfully investigated, and with this history the means, which could not otherwise have been discovered, of protecting ourselves, with more or less success, from their attacks. It is needless to discuss at any length a subject which in the main is well understood. But the importance can scarcely be over-estimated of the knowledge we now have that tape-worms, and especially that the *trichina spiralis*, to which in Germany so many fatal endemic outbreaks have been due, are traceable to immature forms of those animals imbedded in the flesh of oxen and pigs; and that those persons who eat such flesh raw or underdone, or merely smoke-dried, incur the serious risk of infection by them, and, in the case of trichinosis, of distressing illness and probably death. Nor can we disregard the fact that it is from the ova of tape-worms, bred in the alimentary canals, mainly of the lower animals, that the cyst-worms which imbed themselves in our brains and livers are derived; and that, on this account, water contaminated with sewage, and raw vegetables which have been brought up on manure, bring their respective dangers to those who ingest them. To pass over much that is being done both here and elsewhere to explain, and by explaining to enable us to circumvent, the ravages of parasitic animals, I may give brief consideration to the septic organisms, as they are called—the different forms of bacteria—to whose influence putrefactive processes appear to be largely due, and which recent investigations and recent practice apparently prove to be the active agents in producing unhealthiness in wounds,

and in leading to erysipelas and pyæmia after injuries attended with breach of surface, or after operations, and to equivalent varieties of so-called "puerperal fever." So long as the causes of these conditions were unrecognised, it was hopeless to expect that effectual means of preventing them should be employed. No doubt cleanliness in treating wounds and puerperal women is a matter of great importance, and has long been practised with much advantage. But until it was fully recognised that the cleanliness that was needed did not consist in the mere removal of obvious filth and obvious stinks, and that the filth to be dreaded was not so much the filth of drains and dustbins, and unventilated chambers, as the lowly organisms which might no doubt be associated with these conditions, but were derived mainly from wounds already unhealthy, from patients already suffering from puerperal inflammation, from cases of erysipelas and pyæmia, it was difficult to understand why patients died after operations, and women after confinement, more frequently in clean, well-ventilated, and well-conducted hospitals, than in the foul and close dwellings of the poor. But now the mystery seems to be explained; and I do not think I am too credulous when I avow myself, under the influence of the evidence which has been brought to bear upon the subject, a believer in the importance, not of Lister's discoveries, but of the results which have followed from his endeavours to apply the teachings of microscopic pathology to the treatment of the affections under consideration, and in the vast sanitary benefits which have accrued and are accruing to mankind through his persevering and enlightened efforts.

It would be difficult to classify and discuss all the remaining varieties of diseases. It will be sufficient for my purpose to advert to some of them. Certain affections are due to defective or improper dietary, or to over-indulgence in substances which, having a more or less beneficial effect when used in moderation, and under certain conditions, exert a poisonous influence when taken persistently or to excess, or to the habitual introduction into the system of matters which are more or less directly poisonous. The effects of chronic lead-poisoning in causing paralysis, of chronic mercurial poisoning in producing tremors of the limbs, of chronic arsenical poisoning in inducing gastrointestinal disturbance, have long been recognised; and, although each of these forms of disease is still from time to time met with, they are certainly much rarer than they used to be; and the precautions which are generally adopted in factories where these minerals are employed, and generally amongst such as are exposed to their fumes or dust, have had a marked beneficial result. The consequences of phosphorus-poisoning, especially among persons engaged in the manufacture of lucifer-matches, form a matter of more recent observation. But already the phosphorus-necrosis of the jaws, which some fifteen or twenty years ago was of common occurrence, is, owing to the adoption of precautions and of new processes of manufacture, rarely met with, at any rate in this country. Again, we know, as a matter of history, how on long voyages our sailors used to suffer from the ravages of scurvy. The cause of this, however, was ascertained to be not mere hardship or the use of salt meat, but the simple deprivation of some of the necessary principles which are contained in fresh vegetables. And it is needless to say that not only has scurvy become a comparatively rare disease amongst the classes of persons who were formerly its victims, but that when it does occur it is always traceable to the infraction of well-recognised rules of diet. I may add to this that there is ample reason to believe, both from clinical experience and from experimental researches on the lower animals, that rickets in infancy is largely due, not so much to inherited weakness of constitution as to the use of food, nutritious probably in itself, but unsuitable for the requirements of early childhood. But of all matters which are wittingly or unwittingly ingested, alcohol, in its various seductive preparations, effects by far the largest amount of injury. It is not, of course, that alcohol is as poisonous as lead or mercury, or that its consequences are in themselves more serious than those due to abstention from vegetable food or other allied conditions. But it is that indulgence in alcohol affords a certain pleasurable excitement; that this, by feeding it, tends to become a veritable passion, which it is difficult and often impossible to overcome; and that persistent intemperate indulgence induces changes in the viscera and in their functions which result sooner or later in incurable diseases and death. No

one who has paid the slightest attention to the subject can question the enormous moral and sanitary evils which are referable to alcoholic excess. Indeed, there can be little doubt, I think, that the two chief causes in deteriorating the moral and corporeal health of our population are alcohol and the venereal disease. I am not prepared, gentlemen, to express any strong opinion as to how drunkenness should be dealt with. I confess, however, that I am one of those who believe that alcohol in moderation is not injurious and is often beneficial, and that it is a food, though not a necessary food; that I am not of those who believe that because reformed tipplers and others who have felt the ill effects of the too free use of alcohol choose to make a crusade against the enjoyment they have abused, temperate persons should debar themselves from the moderate indulgence in what to them is an innocent pleasure; and that until I am better advised I shall not recommend my abstemious friends to take the pledge with the object of thus reclaiming the drunkard from the error of his ways, any more than I shall urge persons to swear not to bathe in order thereby to discourage bolder or reckless swimmers from getting drowned, or than I shall press them to take a vow of celibacy because there are men whose licentious passions impel them to adultery, rape, and abominable crimes. But it is of good omen that drunkenness, which prevailed largely among our forefathers of the middle and upper classes, has so far diminished among those classes, that for a gentleman to be drunk is regarded as a disgrace to him; and surely we may fairly hope that the leaven of abstemiousness will in coming years gradually pervade the masses of the population.

We cannot well divide diseases into those which belong to the rich and those which belong to the poor, for there is none from which the one suffers to which the other is not more or less liable. And yet no one who investigates the relative mortality of these classes, and the relative frequency among them of the different causes of death, can fail to recognise the fact that many diseases are much more rife and much more fatal among the poor than among those who are above them in the social scale. I shall not venture to enter upon this important subject at length, but I may advert to certain facts, such as that many of the infectious diseases—small-pox, scarlet fever, measles, whooping-cough, and typhus—are not only more prevalent among the poor, but that they are much more fatal among them; that deaths from diarrhoea and bronchitis occur with disproportionate frequency among them; and that the infantile mortality in poor districts—caused in great measure by one or other of the above affections, aggravated by ill nourishment, by injudicious management, and by defective sanitary conditions—is excessive. Indeed, the mortality among the infant population of our poorer districts is even now appalling. It is amongst the poor, and in relation to the diseases that prevail among them, that sanitary science finds its chief field of operations; and it is needless to say that it is probably here that our chief sanitary triumphs in the future are to be sought.

Hitherto, gentlemen, I have referred solely to the medical aspect of prevention. But the surgical side of the question is almost as important. Accidents are liable to befall us from all quarters, and civilisation brings with it not merely new means of happiness, but incidentally new risks and new dangers. Fortunately, the public is tolerably well alive to the chances of accidental injury to which it is exposed; and Acts of Parliament and regulations abound, and are increasing, with the object of lessening the special risks to life and limb which are incidental to manufacturing, to mining, to travelling, to building, and to many other varieties of business or operations; and scientific and practical men are constantly engaged in devising new safeguards against such contingencies.

I have extended these remarks to a much greater length than I had intended. But I have said much less about the subject than I might have said, and in some respects possibly might have said with advantage. I might, for example, have discussed the valuable inquiries of one of my predecessors in this chair in reference to the causation of tuberculosis; and the investigations which have latterly been made into the connexion between diphtheria and sewage emanations. I have refrained, however, from entering upon these and other kindred topics, not because they are unimportant or uninteresting, but because they relate to questions which seem to me to be still *sub judice*, and scarcely at present

adducible as instances to prove the benefits which accrue from sanitary investigations and sanitary measures.

The objects which I have had in view, gentlemen, in the foregoing discussion have been, as I have already explained, to contrast the relative value of the medicinal and surgical treatment of diseases and injuries, and of their preventive treatment; to show how much more important and scientific the latter is than the former; and by considering prevention in relation to various classes of disease, and by adducing well-known but apposite examples, to explain that preventive medicine is not limited to the comparatively small range of diseases and conditions with which we as medical officers of health have to deal directly, but that it permeates the whole length and breadth of practical medicine, and forms an important element even in the actual treatment of disease. But I had also other objects; and these were—to discuss the duties of medical officers of health in relation to the prevention of diseases; to consider what they can do, what they cannot do, and what is expected of them in this matter; to show to how small a segment of the entire field of preventive medicine their operations are confined; and to contend that, valuable as undoubtedly their labours are in this restricted sphere, it can scarcely be expected that the number of lives saved annually by their labours can, as a general rule, affect the death-rate appreciably, and that hence it is an injustice to them to make the varying death-rate a measure of their success or failure, and unwise of them to appeal to it in this sense; and, lastly, to make some observations on the relations of medical officers of health, and of their duties, to the vestries and local boards which employ them. I have spent so much time, however, on that which I had intended to be only the preliminary portion of my subject, that none is now left me for more than this simple brief enumeration of some of the more important topics on which I had intended to address you. I trust on some future occasion, with your permission, to resume the broken thread of my discourse.

Very little has happened during the last year, gentlemen, to which I need call your attention. The Acts relating to sanitary matters which have been passed by the Legislature are few in number, and on the whole perhaps of no great importance. Moreover, they have already this evening been brought under your notice by some of our members. The annual report, which has just been placed in our hands, and for the preparation of which we are indebted to our indefatigable secretaries, is an admirable record of the proceedings of our Society during the past year. But it speaks for itself, and needs no words of mine to recommend it. We gather from it the gratifying fact that the number of our members has increased during the year; but we also learn from it that no less than five have been removed by death. In regard to these permit me in conclusion to say a few words. Of Dr. Bateson I knew little personally. He practised his profession for many years in Southwark, of which parish, since the retirement of Mr. Rendle, he was the conscientious and respected medical officer of health. I was still less acquainted with Dr. Macintosh, of Caistor, Lincolnshire, and with Mr. Oakeshott, of Highgate. The former was the medical officer of health for the rural district in which he resided; the latter was the medical officer of health for the rural district of Hornsey. His melancholy death from an accident in the streets of London is doubtless fresh in the minds of all my hearers. Dr. Trench died in the previous year; but his name has been removed from the list of members for the first time in the present annual report. He was officer of health for Liverpool, and acquired well-merited reputation for the painstaking and enlightened way in which he devoted himself to the sanitary work of that great city. Unfortunately he broke down in health, and for some twelve months before his death, which occurred on December 5, 1877, had to live in retirement. Dr. Murchison was an old friend of mine. I had known him ever since he came to reside in London, and intimately since, eight or nine years ago, he became, partly through my own efforts, a colleague of mine at St. Thomas's Hospital. I entertained the greatest regard for him. Never in the whole course of my acquaintance with him did an angry word pass between us. He was a warm friend, and a man in whose integrity and straightforwardness I had implicit confidence. I do not think that he was characterised by originality of thought, or that he was of the stuff of which original investigators are made; yet, nevertheless, he

presented a remarkable combination of intellectual endowments: he was endowed with unfailing energy; he was a most laborious and methodical worker; he possessed an excellent memory; his mind was an encyclopædia of scientific knowledge; he had a marvellous readiness in seizing upon the essential points of any question that came before him, and taking a common-sense and practical view of it and of his duties in relation to it. Moreover, he was an admirably clear and vigorous writer; and, above all, perhaps, a painstaking and successful clinical teacher and a great physician. He was not an officer of health, but he had, as is well known, taken an enlightened interest in sanitary matters; and a large portion of the labours of his life had been given to subjects which have a special relation to sanitary science. It is devoutly to be hoped that many like him, whose lives are devoted mainly to the ordinary practice of medicine, will cordially co-operate with officers of health and sanitary authorities in the special work to which the latter apply themselves. For the two branches of the science of medicine are inextricably interwoven; and it is impossible to sever them without doing injury to both. Their common aim is the physical welfare of mankind, and anything like antagonism between them must lead to disastrous results.

ORIGINAL COMMUNICATIONS.

FOUR CASES ILLUSTRATING THE CLINICAL HISTORY OF LOCOMOTOR ATAXY.

By JAMES RUSSELL, M.D., F.R.C.P. Lond.,
Senior Physician to the Birmingham General Hospital.

(Concluded from page 443.)

Case 3.—F. H., aged twenty-nine. The history he gives of his complaint is as follows:—Eighteen months ago, whilst being treated for an eruption and a sore throat, being otherwise healthy, he one morning found his legs stiff and numb. He was treated for this sore throat for three months. He took white medicine. He used Tidman's sea-salt for the stiffness; but the numbness in the lower extremities continued, and then he found he had "lost his spring" whenever he strained himself to run or jump. He, however, continued to walk well. At the end of the three months of throat complaint he went to another doctor, who gave him iodide of potassium. Before these symptoms set in he had had to do a good deal of walking in connexion with a fresh business, that of a coal merchant, and he found the walking "tell" on his legs at night. By degrees the facility of walking lessened, he felt weaker, and was worse at night if he had walked much by day.

At the end of six months he placed himself under the care of Mr. Fletcher, of Walsall. His power of walking was then failing rapidly. The effort of walking produced great weariness, so that he was glad to sit down anywhere and rest. He used to drop heavily on his chair; and by this want of control over his muscles he has broken several chairs. The right leg was apt to give way; he could depend better on the other leg.

Six months ago, when he was under Mr. Fletcher's care, the right leg was unable to support the body, and cutaneous sensibility in the limb was lowered. Mr. Fletcher noticed considerable complaint of pain over and to the right of the fifth and sixth lumbar vertebræ, and also in the region of the right trochanter. The patient had difficulty in voiding his urine. A pint of urine was drawn off by the catheter after micturition had been performed. This trouble materially lessened; but even whilst he was in the hospital a special effort was required in order to secure complete emptying of the bladder. The lumbar pain was relieved by the recumbent position, but always returned on the patient resuming the erect attitude. He then kept his bed for four months, but on again getting about, walking had become so much impaired that on entering the hospital two months afterwards he could only accomplish a distance of two hundred yards; and he then observed that it was necessary for him to look at his feet whilst walking.

After careful inquiry, I am unable to learn that the patient suffered pain in his limbs until six weeks before he entered the hospital, when he felt sharp darting pains in each calf, occurring as he was going to sleep, and causing the limb to

start. He is very intelligent, and of a station above the ordinary run of hospital patients, and his description is very precise. The pains continued, but not with any severity, for two or three weeks of his residence in hospital, and then they ceased. Afterwards they returned, but only for a short time. He positively denied having experienced any ocular difficulty, but it will be seen below that he was not quite accurate in this denial. I found his optic discs quite healthy.

He has been married a year. He denies any sexual abuse. A year ago he found his sexual power lessened; at the period of admission he had not had connexion for nine months. Occasionally, though very rarely, he had an erection in his sleep, and once or twice an emission. Five years ago he had a venereal sore, which, however, was open only for two days. A week after, an abscess formed in the left groin, which also was open only three days. Soon after, he had an eruption, still present (pityriasis), and about that time a sore throat. He has had ulcers on the tongue "on and off" for two or three years. He has had one child, now ill with bronchitis (he lives away from Birmingham). There is nothing to note in his family history. He has nine healthy brothers and sisters.

He added the following important particulars to the other portion of his history. Up to two years ago—that is, up to six months before the decided ataxic symptoms appeared—he had been in the employment of a railway, and during the cold weather had to stand within three or four feet of a large fire at his back for twelve or fourteen hours of the day, and even into the night. He did this for twelve years; and it was from the inconvenience he encountered from the neighbourhood of the fire that finally he threw up his appointment, not being able to obtain any change in the arrangement. He had to cast up figures, and he tells me that shortly before the ataxic symptoms began, and after three or four hours' work, the figures would run into one another, so that he could not see them.

He is a fine, healthy-looking man. Muscular nutrition is very good. Power of resistance to passive motion in the lower extremities certainly normal. He stands erect, but when his eyes are blinded he threatens to fall very speedily. In walking, with support, he keeps a steady gaze on his feet; if he directs his eyes upwards he is in danger of falling. The style of walking is not very ataxic; but it manifests decided derangement of harmony between antagonist muscles, with abruptness in the placing of the heel, and a tendency to circumduction and to crossing of the feet. In turning he threatened to lose his balance. He had no vertigo. There was no abnormal sensation in his feet on his putting them to the ground. I have only two reports on the condition of tactile sensation. On admission, sensation by touch and by temperature, as well as power of localising, is reported normal in each lower extremity, and in the sole of each foot. Electro-sensibility was decidedly low; contractility was normal. Ten months afterwards he felt the points of the compasses directly on the legs and thighs, but did not discriminate the points four inches apart. He was accurate as to temperature. But the soles were markedly anæsthetic, requiring firm scratching to produce a sensation. He discriminated cold, but not heat. No sensation or reflex act was excited by tickling. Electro-sensibility and contractility were both very low, both by faradism and by voltaism. He told the position of the feet when his eyes were covered. Two trials with weights, at the periods indicated above, entirely agreed with each other in their results: in the one he had much uncertainty in discriminating between a sham weight and two pounds; in the second he seldom succeeded even with a three-pound weight. Through the entire period of ten months there was complete absence of patellar reflex.

He remained in hospital only from December 10, 1877, to January 26, 1878. The continuous current was passed down the legs, and he took iodide of potassium in scruple doses. After he became an out-patient, phosphide of zinc was substituted. The last I saw of him was on October 26, 1878. There was no amendment in either the sensitive or the muscular condition. His gait was not mended, nor did he stand blindfolded. When leaving the hospital in January he could only walk 200 yards; but by June 13 he was able to walk three miles, and on July 20 had accomplished five. On September 28 he thought he was recovering sexual appetite and erectile ability, but had not had connexion with his wife, though he occupied the same bed with her.

Probably, the increased ability of walking was due to a certain amount of education having adapted his muscles to their altered condition. (Mr. Fletcher writes me word at present that he believes him to be in the same state as at my last report.)

In my fourth case the pain again holds an exceptional position in relation to the other symptoms, as it commenced coincidentally with the motor failure. Whilst watching this case I more than once asked myself whether it were indeed a genuine case of the disease, or whether it were one of the "aberrant" cases of which Dr. Buzzard speaks. One main reason for my uncertainty was connected with the presence of a certain degree of patellar reflex, whilst the lightning pains constituted so prominent a feature in the case. Cases of locomotor ataxy are admitted to exist in which patellar reflex is preserved. Thus, Erb has seen "two cases in which there was undoubted ataxy, with distinct increase in the reflex action of tendons." Dr. Hamilton (*New York Medical Record*, May 24, 1879) observes that "the records of several recent observers have led us to regard it as a symptom which possesses only doubtful value," and in making this remark he specially excludes the possible existence of transverse myelitis. With reference to the persistence of tendon reflex, Dr. Gowers connects the condition with a slight degree of damage to the posterior root-fibres, as shown by sensation being little or not at all affected, and commonly by the absence of lightning pains; he refers to Westphal for confirmation, and Dr. Buzzard gives his support to the statement.

Now, in my patient the pains were not absent; on the contrary, they were very characteristic. Sensation to contact was indeed retained, but the interpretation of a sensation, both as to localisation and as to its nature, was so curiously perverted as to constitute a remarkable feature in the history. The later period of the case, however, nearly removes the uncertainty, by showing reflex action rapidly disappearing from the tendons. It will, however, be noted that the mode in which the reflex action manifested itself was unusual—viz., in flexion of the knee and extension of the foot. The extensors of the knee were not excited to action; and at the last examination taps on the right knee, though failing to affect the muscles on the same side, slightly excited those of the other side. Was it the case that the usual channels by which reflex excitement is conveyed were closed, and that in consequence other muscles were left free to act, which under ordinary circumstances would have been controlled by their antagonists?

The ocular phenomena presented a highly interesting feature in the case. The nystagmus—a rare symptom in locomotor ataxy—was here connected with the defect in vision occurring at a very early period of life. But the visual defect commenced at a remarkable age—namely, at the age of five or six years, or twenty years before the setting-in of the pains. Now, atrophy of the disc exists at present to a decided extent, and though we have no means of ascertaining what first produced the amblyopia, it is a remarkable circumstance that the description given by the patient's aunt of the manner in which the blindness began certainly agrees with what would be supposed to take place when the atrophy commences at the circumference of the optic nerve, as is the case in ataxy.(a) It is, however, an unprofitable discussion to inquire into the precise relation of the ocular changes to the substantive disease. On the one hand, locomotor ataxy at five years of age would probably be an unprecedented occurrence; and, on the other, we know nothing of what first caused the atrophy, if atrophy there were at that time. The patient was probably correct in referring the ataxic stage to the influence of damp, especially as that influence was exerted upon an imperfectly developed body suffering from strong nervous proclivities.

I may just call attention to the evidence which the case affords of the distinction to be made between the power of balancing the body and of co-ordinating movement; the evidence consisted in the marked help afforded to the first-mentioned function by the production of only a very faint sensation in the hand.

Case 4.—Clara A., aged twenty-eight, single. This patient

(a) I have retained this sentence, though I have some reason to fear that its pathology is questionable. Priestley Smith tells me that Leber has shown reason for suspecting that the periphery of the retina receives fibres from the centre of the optic nerve; he also adds that this observation of Leber's agrees with the effect on vision of the cupping of the disc in glaucoma.

has been under my observation at intervals for the last sixteen months. At the time of the commencement of her present complaint she had been living in a very damp house for two years, and had to leave the house on account of the damp. Her brother says that she was always very negligent in changing wet boots or damp clothes.

Both the patient and her aunt agree in dating her symptoms from a period two years and a quarter before she applied at the hospital. Up to that time she had been a good walker, able to accomplish eight or ten miles in a day. The approach of the symptoms was very gradual; they did not begin with any acute development. She noticed that her legs gave way under her—the left leg more than the right; "it was twelve months before walking was seriously affected," but she then became more and more in need of help, and finally depended entirely on her brother's arm when attempting to walk from home; and when she applied at the hospital she could walk in her house only by the aid of the furniture. She has many times nearly pulled her brother down in consequence of sudden yielding of her knees. At the same time she complained of a feeling of weakness in her legs. I may at once state that we found muscular resistance in the lower extremities probably up to the normal standard, the general condition of the patient being considered.

About the same time with the first evidence of inco-ordination the patient began to suffer pains in her legs, and these pains have formed a prominent subject of complaint ever since. They began first in the left leg. She had one attack of pain four months before, but it lasted only for one week. With this exception she and her brother are very positive in asserting that the pain and the muscular defect were coincident. The pains are paroxysmal; sometimes they are bad at night. They remain for an hour at a time, the paroxysms themselves lasting for a day or two, or for "some days"; the pains may be entirely absent for two or three days at once; they are sudden, darting, "like toothache," or "as if the limb were screwed in a vice"; they may start from the inner ankle and shoot up the leg, or from the knee and shoot down, or they may shoot through the joint itself; again, they may dart from the ankle over the back of the foot. She was suffering from a paroxysm at one of her visits, and the starting of the leg-muscles occasioned by the flashes of pain quite interfered with my examination. The pains are increased in frosty weather, but are not affected by damp. There have been also abnormal sensations in the sole of the foot, "like treading on a lump of something." About the time of her applying at the hospital, pain in the back occasionally attacked her, sometimes between the shoulders, and the pain shoots up the back of the neck and head. She has had no other pain in her back, but frequently complains of pain over the left lower ribs; she has never felt any constriction around the abdomen. The upper extremities have been entirely spared in every particular. Urination has not suffered. Menstruation occurs with abnormal frequency; it commenced at the age of fourteen.

The eyes are affected with nystagmus of a most active character. The movements are constant; they are as energetic when she is engaged in conversation as when her eyes are fixed upon any particular object. They cease during sleep doubtless, and are connected with the amblyopia. Acuity of vision is greatly impaired. She sees only 18 Canon at four inches and a half. The field of vision is very limited in a lateral direction; to what extent it is of course impossible to define. The pupils are contracted almost to the size of a pin. One trial with four-grain solution of atropine produced no effect on the pupils; on another occasion by a similar solution I obtained dilatation to about one-fourth the diameter. On this last occasion I succeeded in ascertaining that the disc was very white and the vessels were very small; it was impossible to be more minute in the investigation. In other respects the eyes were healthy.

The patient and her aunt gave me the following history of the ocular phenomena:—When a child the patient learned to read well; but at the age of six her governess found evident proof of failing sight (her family refer the first degree of failure to a year earlier). After another year she became quite unable to read, and so remained from that time forward. The nystagmus was not perceived until the failure of vision had made some progress, but it dates from that period. Vision failed first in the lower part of the field (upper part of the retina). The child was observed to strike against chairs or

other things standing in her way; to miss her plate at dinner; and to hold her needle high when threading it. She is very clear that the defect of vision was induced quite by degrees, and that it did not originate in any acute affection of her eyes; but about the time of the motor defect she had a paroxysm of severe burning and heat in her eyes, for which she received medical help.

She has one sister who is very nervous; a brother who is quite healthy. One brother died when three months old. Her mother had no miscarriage. No nervous disease nor disease of the eyes is known in the family. She is a thin, feeble, ill-developed girl. Her front teeth are very small, like those of a child; her complexion is clear; her nose is well formed; her corneæ are quite transparent. She had been losing flesh for twelve months when her attendance began.

No important change has taken place in her condition during the last sixteen months, excepting more frequent complaints of pain. In standing, constant alternating action of extensors and flexors, and an occasional yielding of one or other knee, render her very unsteady; but she is greatly assisted even by laying a finger lightly on the bedpost or by placing it on my hand. "I can stand if I only touch with a finger." The difficulty is not increased by closing the eyes, probably because she has become more or less independent of vision. In walking with help of her brother's arm, the feet are raised abruptly but fully, and are projected forward like a soldier marching, the foot being everted, one occasionally crossing the opposite one. Sometimes the foot so far overreaches her centre of gravity as to endanger her falling, and at times one leg is thrown across the other, or the feet are placed widely apart. In sitting for examination, a state either of automatic rigidity or of very irregular muscular action is produced; the moment attention is drawn to the legs they assume most awkward positions, and the toes are spread out. No rigidity remains at other times; no tremors. Tactile sensibility is probably normal in the arch of the foot, but the points of the compasses are less readily felt on the plantar surface of the toes. Though the degree of anæsthesia is very low, there is singular defect in power of localising and of interpreting a sensation: a touch on the foot is referred to the ankle; a touch on the leg, and sometimes also on the foot, to the opposite limb. A touch with the compasses gives rise to the sensation of cold; and a sponge in very hot water on the left leg was avoided immediately, with the exclamation, "Cold"; on the right it felt hot. Electro-sensibility is almost absent, except for producing a sensation of cold; a slight feeling of pins and needles is the only other response of a sensitive character. Electro-contraction is low. The faculty of discriminating weight is seriously impaired; she hesitates even with a difference of two pounds between weights hung on her feet. Sensibility and irritability to tickling the soles are nearly abolished.

With regard to the knee phenomena, during the first six or eight months decided, though limited, *flexion* of the knee and extension of the foot on the left side were produced by tapping the patella or its tendon; on the right side the response was of the same character, but was feeble. Afterwards the reaction in the left extremity began steadily to diminish; and in my last examination, made at the present time, by tapping the left patella or its tendon a slight action only of the ham-strings follows, just enough to move the joint, and the foot just moves in extension; every now and then no action follows, and, after some trials, response ceases. In the right limb a very slight movement followed once or twice, but most of the taps produced decided, though very limited, movement in the *opposite* limb. There has been no ankle clonus. Her upper extremities are so completely free from all imperfection that she has acquired the power of dispensing with vision in threading her needle; in my presence she passed ordinary thread through the eye of a common sewing-needle held between the first finger and the thumb. She makes all her brother's clothes.

GLYCERINE IN 1868 AND 1879.—Mr. Shoemaker, in an interesting account of the early manufacture of glycerine in this country, in the *American Journal of Pharmacy*, says that he began selling it in 1848 at \$4 a pound, while it can be now produced for 18c. a pound. The chief demand comes from the brewers; and it is estimated that over 40,000 lbs. are drunk annually in beer in this country alone.—*Philad. Med. Times*, August 30.

CASES OF FRACTURE IN ADVANCED LIFE.

By E. L. HUSSEY, F.R.C.S.

Fracture of Thigh, not detected—Splint applied six weeks after Fracture—Bony Union.

A MAIDEN lady, seventy-four years of age, short in stature and slight in make, living at Leamington, had been observed in the spring of 1860 to be feeble and inclined to stumble in walking. She fell down as she was moving about in her bedroom late one night in the end of May. Although in much pain she managed to raise herself without help and to get into bed.

The lady herself and her sisters with whom she lived had great faith in homœopathy, and sent next day for a practitioner in that department of the art, who generally attended them in illness. Under his advice the patient was ordered to lie quietly in bed; and such means as kindness could suggest were used to comfort her and soothe her sufferings. At his suggestion another practitioner, whom he recommended as being "homœopathic and a surgeon," was summoned from a distant town to consult on the case. As the result of the consultation, an explanation was given that the bone of the thigh was broken at the joint, that the broken parts would not unite, and that permanent lameness would follow.

In the beginning of July—between five and six weeks after the accident—the lady's nephew, a lawyer practising in London, came to pay her a visit. Not being satisfied with what he heard and saw of the case, he went to the late Dr. J. H. Lakin, of Kington, and requested him to visit the patient. Dr. Lakin found that the right femur was fractured in its upper third; that the fragment nearest the trochanter was prominent, with the skin tightly stretched over the projecting end of the bone; and that the limb itself was four inches and a half shorter than the other.

On July 7, I saw the lady in consultation with Dr. Lakin. There was nothing in the patient's appearance and general state to make us think that bony union was impossible; and we resolved to make an attempt to bring the parts into a more favorable position, with a view to obtain union. We were not able to bring the limb to its proper length by extension. But, making extension and counter-extension as well as we could in so feeble a subject, we applied on the outside of the limb a long wooden splint, with joints at the hip and knee; and we placed her on her back, with the limb well supported by pillows.

A bedstead of a convenient form having been obtained, with support for the back, and a double inclined plane for the limbs, we placed the lady upon it on the 14th. Dr. Lakin then took charge of the case. In the middle of September (ten weeks after the application of the splint) the limb was rolled in bandages stiffened with a solution of gum and starch, and the patient was moved from the bed on to a sofa.

At the date of my last visit (September 24) firm bony union had taken place. The ends of the bone were firmly united by ossific matter, which was deposited in abundance around them. The limb was much shortened.

After Dr. Lakin's attendance had ceased, I was informed that the lady was too much crippled to be able to walk without help. She was, in fact, discouraged by those about her from making the attempt. With the help of crutches she moved from one room to an other on the same floor, and in suitable weather she went out in a carriage or a Bath chair.

She died in the spring of 1863, having lived without discomfort for nearly three years after the accident. No opportunity was afforded for examining the limb after death.

Fracture of Thigh—Recovery without Deformity.

A laboring man, seventy-eight years of age, was admitted September 5, 1862, into the Radcliffe Infirmary, under my care, with a fracture of the right thigh in its middle third, received by falling off a waggon when drunk.

The ends of the broken bone having been adjusted, a long straight splint of wood, known as Liston's splint, reaching from the axilla to a distance of several inches beyond the foot, was applied and fixed by cotton bandages to the outer side of the limb, counter-extension being maintained by a thick bandage passing under the perineum, and fixed to the

axillary end of the splint. The patient thus confined was placed on his back.

In consequence of some irritability of the skin of the perineum and the groin, I removed the bandage from the perineum on October 4.

On the 29th the union of the fracture seemed to be firm, and I took away the splint. The patient remained in bed for some days longer, as I did not think it was safe for him to bear his weight on the limb.

The man had the usual meat diet of the house, being a portion of meat on four days in the week. On September 15 I ordered a pint of ale in addition: this was taken daily throughout his stay in the Infirmary. On the 18th, I ordered, in addition, two ounces of port wine at night: this was increased on the 20th to four ounces; and it was continued until November 3.

In the beginning of November he was allowed to move about the ward with crutches, and he went home on the 12th. There was not any perceptible difference in the length of the two limbs. I have since been informed by a gentleman resident in the village where he lived, that he was not in the least lame, and that he frequently walked a distance of several miles. He died in May, 1869—nearly seven years after the accident.

Fracture of Thigh—Limb Shortened after an Old Fracture of Leg.

A farm laborer, eighty-three years of age, was admitted March 11, 1873, into the Radcliffe Infirmary, under my care, with a fracture of the right thigh in its middle third, received in a fall from a tall horse on which he was riding. Upon recovering from the shock he tried to rise, and to walk with the sound limb; but, to use his own words, he "found the other was left behind him." The leg of the same side was shortened from the effects of a fracture received many years ago.

The limb was put up, as in other cases under my directions, with a long splint on its outer side, and the patient was placed on his back.

The old man suffered much from a chronic cough: and the medicines administered for three weeks were directed to the relief of his sufferings from that complaint.

The usual meat diet of the house was taken; and on May 22 I ordered a pint of ale daily in addition.

The fracture united favourably, and the man went home on June 4. The limb was shortened by about an inch and a half.

He did but little work afterwards; and he was removed to the workhouse in the autumn. He employed himself merely in moving about with a stick and a crutch; and he died in March, 1875, under an attack of senile bronchitis.

Comminuted Fracture of Neck of Thigh-bone—Inversion of the Limb.

An unmarried lady, sixty-four years of age, of thin and spare frame, rather above the middle height, formerly a governess, living in lodgings away from her relations in consequence of her inveterate habit of drinking, fell down a steep flight of stairs when going up to bed on Sunday night, September 6, 1868. She was not perfectly sober at the time. With some difficulty she was raised, and taken to bed by the landlady and her servant.

About an hour after midnight I saw her with Dr. Freeborn, who generally attended her. The soft parts in the left gluteal region were greatly swollen. The limb on that side was shortened, and it was lying on its inner aspect, with the knee and foot inverted, having the general appearance of dislocation of the head of the bone backwards. The shaft of the femur could be traced in its whole length. Upon making pressure on the trochanter and over the hip-joint, crepitus could be felt distinctly. The limb could be brought to its proper length by making extension with moderate power, and it could be rotated without difficulty. But when the extending power was relaxed, the limb resumed its former appearance of retraction and inversion, falling by its own weight on to its inner aspect. We formed the opinion that the neck of the bone was fractured and comminuted, with much effusion of blood.

In such a subject, with habits known to us, we had no reasonable hope of the recovery of a useful limb, with bony union; nor had we much hope that our efforts for the purpose would receive corresponding attention on her part. We placed her in bed, with pillows under the limb to support

it in an easy position. A draft of liq. ammon. acet., with some morphia, was prescribed.

Much fever with depression followed. She was greatly reduced, and at one period it seemed as if her strength would fail altogether. A superficial sore formed on the sacrum, and another on the right trochanter. They seemed to be from the direct effects of the fall, and they healed favorably.

An attempt was afterwards made to bring the limb permanently into a better position by means of a weight attached to the foot with a pulley at the lower end of the bedstead. This was discontinued, in consequence of the determined resistance of the patient. No other mechanical contrivance was used. The limb was supported by pillows, and every attention was given in the way of nursing. A restricted, but generous, diet was administered.

The large quantity of blood effused at the seat of fracture became absorbed by degrees; and several small pieces of bone made their way to the surface without suppuration, and without leaving an open wound.

In the middle of December she was placed daily on a sofa, and toward the end of the month she was able to move about her room, but without resting on her left foot. The limb was nearly two inches shorter than the other. The foot was in a middle position between inversion and eversion. With a thick sole to her boot, and with the help of crutches, she used to move about the house, going up and down stairs; but she seldom went out of doors except in a Bath chair.

She continued in fairly good health to the time of her death, in February, 1875, when she sank from the gradual decay of a constitution naturally feeble.

Fracture of Leg—Recovery.

A laboring man, eighty-five years of age, over six feet in height, was admitted into the Radcliffe Infirmary, April 19, 1864, under my care, with a fracture of both bones of his left leg, received in a fall when drunk, as he was coming out of a public-house.

The limb was placed on a back splint of iron, with a wooden splint on each side; and the patient was put to lie on his back.

He had lost his teeth so completely that he could not chew butcher's meat; it was therefore a matter of necessity that he should have the broth diet of the house instead of meat. On May 2 I ordered two eggs daily in addition. On April 21 I ordered two ounces of port wine daily, and I increased it to four ounces on the 23rd. On the 25th I ordered a pint of ale daily instead of the wine, and two ounces of brandy to be taken at night in water. I stopped the allowance of brandy on June 2. The broth, the ale, and the eggs were continued till he was discharged from the Infirmary, on June 8, with the bone firmly united.

To the best of my memory he did not take a dose of any medicine during the treatment.

He died at home in October, 1868, within a month of completing his ninetieth year, having lived between four and five years after the accident.

Compound Fracture of Skull—Erysipelas—Recovery.

A widow woman, eighty-four years of age, was admitted into the Radcliffe Infirmary, July 23, 1872, under my care, with a compound fracture of the skull caused by a brick falling on her head. She was picking pieces of stick from among the rubbish of a house which was being pulled down, and continued to do so, though warned to keep away from the danger.

There was a transverse wound of the scalp an inch and a half long across the frontal bone, where it is thinly covered with hair, about an inch from the margin of the forehead. The outer plate of the bone was broken, but without being much depressed. The injury was attended with slight symptoms of concussion. She rallied soon after admission.

On the 31st I ordered four ounces of port wine to be taken daily, and next day it was increased to six ounces. This was continued for five or six weeks, after which a pint of ale was given instead of the wine.

On August 4, erysipelas appeared on the head and face. Quinine with tincture of cardamoms was given; and on the 8th, sp. chlorof. Mx. added to each dose. This was taken twice a day till the 29th. The erysipelas subsided favorably.

During the month of August she suffered much from constipation, for which repeated doses of castor oil were

administered. In the beginning of September the bowels acted naturally, and aperient medicine was not wanted afterwards.

In the middle of September several small pieces of bone, which were loose, were removed from the wound.

She was taken home on October 25, the wound being then nearly healed.

I have since been informed by her daughter that she continued in good health for some years afterwards, and that she died in August, 1878, having reached the age of ninety years.

Remarks.—These patients were some of the most aged of those who have been under my care in cases of similar injury. Notwithstanding the severity of the injury in these cases, recovery followed, with union of the bone in all of them, without unusual delay, and without anything remarkable being observed in the progress. In the course of the treatment I did not find it necessary to prescribe more animal food than is provided for the patients in the ordinary diet of the Infirmary; nor in private practice did I see reason to advise any alteration of the usual meals, or to give any special directions on the subject of diet. In some of the patients in the Infirmary, as in other aged persons, whether in local diseases or constitutional affections, it seemed to me that the addition of wine was beneficial during the period they were confined to bed; and that recovery was promoted by an allowance of stronger beer at meals than is given with the diet as the ordinary drink of the patients. If an opinion may be formed from the subsequent history of the patients, it does not appear that life was shortened by the accident. It is a melancholy fact that among these aged persons three of the number were not sober at the time of the accident.

Oxford.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

MR. LISTER'S CLINIQUE.

Case of Genu Valgum.

THE patient was a little girl who had been operated on two weeks ago for extreme genu valgum. In examining the case, which had been last dressed eight days before, Mr. Lister pointed out that the blood-clots which covered the wounds were quite sweet, and he remarked that he never cleared away blood in these cases, but rather looked upon it as useful in sealing up the wound. The operation he had performed was that of McEwan, and although it had been stated that he liked to make a large incision, that was not the case; he was not afraid to do so when it was necessary, but he followed the plan of McEwan in his operations. The wounds were dressed with the ordinary antiseptic precautions, and in addition the limbs were enveloped in boracic acid lint. This precaution was considered useful in cases where the parts might have to be kept in splints or other apparatus for many months; it prevented chafing of the skin, and in addition it was a safeguard against what Mr. Lister had often seen where strict cleanliness could not be observed—the presence of pediculi. These were apt to introduce themselves beneath ordinary dressings, and gave rise to much trouble, but the boracic acid seemed to be fatal to them.

Amputation of Breast.

Patient was a young woman whose right breast, with numerous enlarged axillary glands, Mr. Lister had removed nineteen days before. A piece of skin as large as the palm of the hand had been removed along with the breast, and the edges of the wound had been brought together with the lead-button suture. There had been very considerable traction, not directly on the edges of the wound, but on the parts above and below, but the entire length of the incision had now quite healed, and there was only slight oozing from the axillary end, where drainage had been established. The healing had taken a little longer than usual, owing to the

irritation in the parts from the great amount of traction necessary. It had been necessary to follow the enlarged glands up as far as the clavicle, but all this part had healed well. Over the situation of the lead button there had been a tendency to sloughing, and these various spots were covered with protective to keep the irritating action of the carbolic acid from them. The antiseptic dressing was still to be kept up for a short time longer, and the arm was bound to the side in order that there might be no dragging upon the still tender cicatrix.

Laceration of Forearm, with Division of Ulnar Nerve and Artery.

Patient was a labouring man who had been in the hospital some time ago, and who now came to be examined. He had been admitted with a deep wound extending over the front of the forearm about its middle, and dividing the muscles and the artery and nerve in that situation. The artery was secured on admission, and it was subsequently noticed that there was complete loss of sensation in the little and ring fingers. Mr. Lister opened up the wound, and having found the two ends of the severed nerve, united them by catgut sutures. The wound healed up well, and complete sensation returned to the fingers. Patient now complained of some weakness in the hand and of a tendency of the fingers to remain semiflexed. On examination there was the cicatrix of the large irregular wound in the front of the arm. The flexor tendons in the hand could be felt to be tense, and patient was unable to completely extend the digits. They could, however be forcibly extended, and this treatment was recommended to be used daily, along with friction and soaking in hot water. The union of the cut nerve seemed perfect, as there was no impaired or unnatural sensibility or loss of movement.

Remarks on Dressings.

In the theatre, after examining several cases, Mr. Lister made some remarks on the subject of the various dressings he used. He had found that carbolic acid very quickly went through gutta serena tissue, less quickly through oil-silk, and less quickly still through oil-silk when covered with gum-copal. Therefore the "protective" he used for wounds was oil-silk prepared with gum copal. That the dressing he placed above this was truly antiseptic he thought he could say was proved. When the dressings had been handed round it could be seen that after having been next wounds for three and four days there were no signs of putrefaction. If ordinary dressings had been used they would have been black and stinking under the same circumstances. There was a time when people did not believe in the existence of oxygen; and there were people who did not believe in the existence of septic germs; but he believed that their presence had been demonstrated, and that the germ theory was more and more becoming accepted. Carbolic acid had been found to be most effective in preventing septic action. It might be used in various ways. If added to water a comparatively weak solution could be made, but the carbolic acid was very easily given up, and, if tested by touching the tongue with it, a one-in-twenty solution would be found to be almost caustic. Again, if added to oil, it formed a comparatively bland and stable solution of one in eight, and if mixed with resin it combined in the proportion of one in five to form a still more stable compound. When he first found that carbolic acid united with resin, and noticed its apparent change of properties, he thought that there must be some chemical change in the acid; but experiment showed that it was only given off more slowly, while it still retained all its properties. This is the form now in which he uses the acid as a dressing, impregnating ordinary gauze with it. In addition, four parts of paraffin are added to the mixture to prevent the gauze becoming too glutinous. The advantage of this preparation is that it does not irritate the skin by too strong action, but that it keeps giving off the carbolic acid slowly, and lasts for a long time. He always wets the first layer in a watery solution of carbolic acid in order to have the wound and drainage-tube quickly brought under the influence of the antiseptic. Usually about eight layers of gauze are necessary for ordinary dressings. The use of the outer layer of mackintosh is to prevent the discharges soaking directly outwards; it directs it over the whole surface of the gauze, and thus makes a great many layers unnecessary.

A man was then brought into the theatre with a large ulcer

of the leg, which had been dressed the previous week with benzoic acid. This, Mr. Lister said, was an antiseptic dressing new to them at King's College. On examining the leg (which had been dressed three days previously) it was found that all the dressings were sweet, that the ulcer was presenting healthy granulations, and that its surface was raised to a level with its edges. When last examined it had been unhealthy and excavated. Benzoic acid had proved here to be truly antiseptic. The ulcer was dressed by washing it carefully with a watery solution of benzoic acid, covering it with protective and lint saturated with benzoic acid, and bandaging in the usual way. Mr. Lister had heard of men using the spray for dressing such wounds, but the spray was only meant to be used to prevent septic matter entering a cavity, and was not at all necessary when dressing superficial wounds.

LONDON HOSPITAL.

A CASE OF UNUSUAL TEMPERATURE.

(Under the care of Mr. RIVINGTON.)

SUSANNAH N., aged forty-two years, was admitted on February 25. She had been an in-patient last year, and in November had the left thigh amputated at the lower third for obstinate ulcer of the leg, by Mr. Rivington. From this operation she had not made a very good recovery; and on the first day of getting up in the ward she had fallen on the stump, and afterwards had much pain in it. She left the hospital on January 22, but had constant pain at the seat of amputation; and part of the under surface of the flap remained unhealed at the time of her re-admission. When admitted, the end and anterior surface of the stump were red and inflamed. She complained much of pain in it. Her temperature was about 99°. She had some cough, and complained of dragging pain about left shoulder. The condition of the thigh was considered to be erysipelatous, and patient was placed in the outdoor ward and simple local and general treatment was adopted. The following extracts from the dresser's notes show the further progress of the case:—

February 27.—Patient did not sleep last night, and says she had much cold shivering for two or three hours. She complains of a darting pain running half-way up the stump. Temperature last night 100°.

March 4.—She has a headache this morning, and complains of pain in the stump. She has had very bad nights, and had two rigors last night. There is no change in the appearance of the thigh. Temperature 100°. Yesterday an incision was made into the stump, but no pus or other source of irritation was detected.

11th.—There has been no special change in her condition. The inflammation of the stump does not seem to be increasing. Her appetite is very bad, and she is not improving in other respects. Temperature at 1.30 to-day 98.2°.

14th.—She is having bad nights. Last night she says she did not sleep at all, and that "the bed seemed to swim round her." This morning she had a rigor, and there was a sudden rise of temperature—at 10.30 a.m., 107.8°; at 11 a.m., 105°; 11.30 a.m., 102°; 12 noon, 100°. There are some fine crepitations at base of right lung, and some dulness on percussion.

15th.—There is pneumonia at right base. Last night her temperature was 106°. She has been ordered to take brandy (half an ounce) every two hours, and beef-tea.

17th.—She was delirious during last night. This morning she is feeble and exhausted; breathing is quick. The stump is painful, and patient says the pain goes up the bone and makes the stump ache. At 12.15 this morning temperature was 108.8°; the thermometer was left in for twenty minutes more, and then registered 111°. At 12.45 another thermometer was put in the axilla and allowed to remain there for twenty-five minutes, when it registered 105.8°.

18th.—Patient seems a little better this morning. An ice-bag was applied to head last night, and mustard and linseed poultices to chest. The temperature at 9.30 p.m. was taken by two different thermometers: it registered in one 110.6°; in the other the lower end of the index was at 111°; (the highest marked point). 10.45 p.m., temperature 102°; 11.45, temperature 111° (the index was again pushed to the highest point of the instrument).

19th.—The temperature was taken hourly to-day, but did not reach a higher point than 104.6°. Patient says she can feel her left foot (the one removed), and there seems to be a cord tied round it. She passed a bad night, but seems better this morning. There is no change in the stump.

20th.—Temperature last night, at 11 p.m., 103°; at 12 midnight, 109°; at 1 a.m. to-day, 102°; at 2 a.m., 98°; at 7 a.m., 98°; at 10 a.m., 104°; at 4 p.m., 103°; at 5 p.m., 109°; at 7 p.m., 98°; at 8 p.m., 105.6°; at 10 p.m., 99°; at 11 p.m. and 12 midnight, 110°. Accompanying these extraordinary fluctuations of temperature there were no symptoms beyond those already described.

21st.—Temperature at 3.30 a.m., 108.4°; from 6 a.m. to 9 a.m., 99°; at 10 a.m., 104°; at 12 noon, 106°. Afterwards the temperature gradually fell to 101°.

22nd.—The temperature has not been higher to-day than 105.6° (at 12.30 p.m.). Patient seems a little better in her general condition.

23rd.—Last night, at 11, temperature was 110.8°; at 1.30 a.m. to-day, 109°; at 2.50 a.m., 101°; at 6 a.m., 110°; at 11 a.m., 108°; at 9 p.m., 104.

The temperatures, taken twice daily from March 25 to April 22, are here given:—

	11 a.m.	9 p.m.		11 a.m.	9 p.m.
March 25 . .	101°	106.6°	April 9 . .	100.4°	101°
" 26 . .	99	99.4	" 10 . .	107.4	102.8
" 27 . .	104.6	100	" 11 . .	105	102
" 28 . .	110	109.6	" 12 . .	104	111
" 29 . .	101	101.8	" 13 . .	100	102.6
" 30 . .	108	100	" 14 . .	100.2	101.4
April 1 . .	108	108.6	" 15 . .	105	106.4
" 2 . .	99	104	" 16 . .	103.4	105.8
" 3 . .	99	107	" 17 . .	107.8	—
" 4 . .	105	108.6	" 18 . .	105	—
" 5 . .	105	104	" 19 . .	101	98
" 6 . .	104.6	—	" 20 . .	107.6	108.4
" 7 . .	109.4	101.4	" 21 . .	111.4	101.6
" 8 . .	107.8	100.4	" 22 . .	106.2	—

During all this time, beyond great pain in the stump and frequent sleepless nights, there was little to record. An ice-bag had been kept applied to the head night and day. On March 28 it was noted that "she has been sobbing all morning, and she says she had a nasty vision during the night, but cannot remember this morning what it was." On April 14 it was noted—"She appears to be very well in herself, but appears to have worried herself a good deal about a proposed operation." On April 21 Mr. Rivington opened the stump, operating antiseptically, and sawed off a piece of bone. The end was a little enlarged; it was afterwards softened and examined microscopically, but no abnormal appearances whatever were found in it. After this operation the temperature, except on the following morning, never went beyond 102°, and the case took an ordinary course, patient being discharged cured in August. The pain did not at once leave the stump, and convalescence was somewhat slow. It is to be regretted in this case that only the ordinary clinical thermometer was used, as on several occasions the index was pushed to the furthest possible point of the instrument, and it is therefore likely that the temperature at these times was higher than is noted on the chart. The hyperpyrexia was evidently not due to the pneumonia, which was never of any great intensity, and the subsidence of the temperature after operation showed that the primary cause was in the condition of the stump. Beyond a little malaise, patient's general condition could not be said to have been much affected. She seemed to be a fairly healthy, well-nourished woman, and continued so throughout her stay in the hospital.

COLLECTING DOCTORS' BILLS.—The sorrows and the failures attending this interesting part of medical practice attracted the attention of the North-Western Medical Association at its last meeting. To remedy this evil it proposes that on the face of the bills shall be printed, "Bills rendered monthly or within thirty days after service." On one end is printed, "Ten per cent. discount will be allowed if payment is made within thirty days. Lawful interest will be charged after thirty days." At the other end is the name of the collector chosen by the Association.—*New York Med. Record*, September 27.

(Free by post.)

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Medical Times and Gazette.

SATURDAY, NOVEMBER 1, 1879.

THE address delivered on October 17, by Dr. Bristowe, on taking the Presidential Chair at the Society of Medical Officers of Health, and which we have the pleasure of publishing *in extenso* [in our present issue, is a very interesting and suggestive one, as indicating the progress that has been made, and pointing out what we may hope still to achieve by the study of the science of Preventive Medicine. It will be seen, on perusing the address, that Dr. Bristowe first dwells on the vast importance of sanitary medicine, and affirms that no physician or surgeon can hesitate to acknowledge that the prevention of diseases and injuries has far higher claims to be regarded as a science, and to the gratitude of mankind, than the mere curative or palliative treatment of diseases and injuries that have already occurred. But he uses the term "prevention," in relation to the conditions which determine sickness, injury, and premature death, in a very wide sense, and as covering a much more extensive field than that with which medical officers of health are directly concerned. He appears to use the word in its old sense of coming or going before, so as to anticipate, as well as in the modern sense of hindering, so as to make it include "expectant" medicine in its fullest sense. He confesses that he is not a little sceptical as to most that is generally inculcated with regard to the medicinal treatment of disease, but at the same time he repudiates all idea of implying that the physician is powerless in the presence of disease. He fully believes that there are many diseases in which remedies—judiciously applied, of course—are really remedies, and of inestimable value; and that there are periods in most diseases when appropriate medicinal treatment is attended with important beneficial results: but he is satisfied that many affections which we profess to cure run their allotted course in spite of all our remedies; and if he had said "have professed," rather than—or as well as—"profess," the vast majority of medical men would agree with him, though they would

hardly go so far as to believe that "in a very large proportion of cases all the nicely balanced combinations of drugs, which are administered in the form of pills and potions, might, for any good they do, as well be thrown to the dogs." But he is more than satisfied of "the immense benefit to be derived from the expectant treatment of diseases, applied with forethought and knowledge"; and he enlarged on this theme, illustrating it by various instances of the way in which, thanks to our advances in pathological knowledge, we know the complications and dangers to be most feared; and, watching all the signs of their threatening advent, can go forward to prevent them. And he is satisfied that, as pathological knowledge advances, our powers in this respect will be largely, "if not indefinitely," increased. In this part of his discourse it seems to us that Dr. Bristowe went somewhat out of his way to criticise Dr. Graves's saying that his chief claim to the gratitude of mankind lay in the fact that "he fed fevers." Dr. Bristowe fully recognises the pre-eminence of Dr. Graves as a great and enlightened physician, but remarks that continued fevers were not, in his day, differentiated into typhus, relapsing, and enteric fevers, and that, whatever may be now thought in regard to the feeding of typhus and relapsing fever, few would venture to follow Dr. Graves' dictum in enteric fever. For, the pathology of this disease teaches us that our chief hopes of successful treatment depend, "not on feeding the patient in the sense in which Dr. Graves employed the term, but in so reducing and regulating his diet as to guard it from irritating the stomach and bowels, and thus maintaining sickness and diarrhoea," or inducing hæmorrhage or perforation. But did not Dr. Graves really mean, and teach, that we must *support* the patient, and so help him, by such food as he can assimilate, to live through the fever? and is not that just what we teach now?

Dr. Bristowe then passes to speak of the prevention of diseases in the more common acceptation of the term, and, as would be expected from him, gives a large and wide scope to its powers, though pointing out that in many classes of disease, as in hereditary and endemic diseases, the progress of prevention must be slow. He sees reason to hope, however, that as knowledge increases, and as the laws that determine the inherent healthiness or unhealthiness of offspring become more thoroughly understood and appreciated, marriages of consanguinity, and marriage between persons who, for sanitary reasons, are manifestly unsuitable for one another, will become more and more rare. He points out that such endemic diseases as goitre and cretinism may be absolutely cured if their victims are removed in an early stage of the diseases from the districts in which they prevail, and that we may hope to be able to eradicate the maladies by purifying or changing the drinking-water; while we now can banish malarious fevers and dysentery from marshy districts by means of efficient and well-regulated drainage. He dwells at considerable length on this part of his subject, and, when speaking of evils produced by what are, in Parliamentary language, called "contagious diseases," he warmly condemns the action of those men and women who, regarding these diseases as God's infliction, would permit them to be freely spread amongst the innocent and unborn. He rightly condemns also the anti-vaccinationists, and, though he does mention animal vaccination, he holds that we are wrong not to take every means in our power, and the Legislature is doubly wrong not to endeavour by stringent legal enactments, to arrest the progress of "contagious diseases" and of small-pox. And he goes so far as to think "that no man who has once begotten a syphilitic child should be allowed henceforth to take part in the propagation of his species."

It is impossible, and would be superfluous as we place Dr.

Bristowe's address before our readers, to notice it more at length. But we are glad to see that he believes "that alcohol in moderation is not injurious, and is often beneficial, and that it is a food, though not a necessary food"; and he does not think that because many people will abuse alcohol, therefore temperate persons should debar themselves from a moderate indulgence in what to them is an innocent pleasure.

Dr. Bristowe had in view, in his address, to contrast the relative value of the medicinal and surgical treatment of diseases and injuries, and of their preventive treatment, and to show that the latter is much more important and scientific than the former; and by the consideration of prevention in relation to various diseases, to explain that preventive medicine is not limited to the comparatively small range of diseases and conditions dealt with directly by medical officers of health, "but that it permeates the whole length and breadth of practical medicine, and forms an important element even in the actual treatment of diseases." He hopes on some future occasion to discuss the duties of medical officers of health in relation to the prevention of diseases, and some other important subjects; and certainly all who read his first address to the Society of Medical Officers of Health will expect with eager interest his future discourse or discourses from the presidential chair of that Society.

THE ARMY MEDICAL DEPARTMENT.

An acute student of history and a shrewd judge was the man who first formulated the observation that as nations become more and more civilised, the greater and more constant is the attention given to perfecting the efficiency, at all points, of those costly machines, their armies; and that the status and influence possessed by the army surgeon, and the completeness of the medical and surgical care taken of the soldier, form a very fair and trustworthy test of a nation's position in the civilisation scale. Tried by this test, however, Imperial Britain must—at present, at any rate—be adjudged a very low rank among European kingdoms. For the nation has, with scarce a shadow of remonstrance, permitted government after government to meddle with and make experiments upon its Army Medical Department, till it has been all but improved out of existence.

The history of the Department has for years been one of meddling and muddling, and steadily increasing unpopularity. Lord (then Mr.) Cardwell did much to disturb the Department and lessen the attractiveness of the Service, by destroying the old system of regimental service. The unification system, which has never been fully carried out, has been very generally allowed to have considerable advantages when an army is in the field, but there are widely different opinions as to its desirability in times of peace. And it has the very great disadvantage of depriving the military surgeon of his regimental home, thereby taking away most of the comforts and pleasures of military life, and lowering the status and gravely lessening, if it does not destroy, the personal influence of the surgeon. The discontent in, and the unpopularity of, the Service rapidly increased, and Lord Cranbrook, then Mr. Secretary Hardy, produced as a cure for all evils his short-service system. We need not recall the details of this plan, but its principle was that a man was to enter the Service for a ten years' term, at the end of which, whether he wished to remain in the Service or not, he was liable to be dismissed and sent out (with a bonus of, at the most, £1000) to begin life anew; and the result was to utterly destroy the Army Medical Service as a life career. Mr. Hardy clung fondly to his bantling for some time, but at last he was compelled to acknowledge that it had been brought to his notice that a

great unwillingness to compete for commissions in the Army Medical Department had for some time existed. Twenty months ago he appointed a Committee to inquire into the subject, and to report on the measures to be adopted in order to attract eligible candidates in sufficient numbers; and he put a stop to the examinations for entrance into the Army Medical Department. It is now more than fourteen months since the Committee reported, and we are still waiting for any action to be taken on it. The condition of the Department has of course become worse and worse. It is said to be not far from a hundred under its authorised establishment of 886. At home it is so short-handed that civilian surgeons are largely employed. Officers returning from foreign service can hardly get a day's leave, and those on home service are harassed by over-work and by incessant change from station to station. During the Zulu war the supply of surgeons for our troops was ample and efficient; but this was only effected by the employment of some fifty or more civilian surgeons, and it happened that many of these had already seen war service in the Franco-German and Russo-Turkish wars. But it is nothing less than a disgrace that we should have to depend on such supplementary aid for the provision of proper and efficient medical care of troops, and it cannot be expected that experienced civilians can always be obtained when required. In India, even at the beginning of the Afghan war, there was some lack of surgeons; and since the end of the first act of the drama the scarcity has been so great that it is reported that the Indian authorities have urged the Secretary for India to hurry out the medical officers lately admitted to the Service.

The details of the long-expected new Warrant for the Army Medical Department were settled, so far as the War Office authorities are concerned, some months ago; and the document was passed to the Treasury for consideration, and in that Office it still, we suppose, remains. The War Office, expecting a speedy decision, gave notice that an examination of candidates for the Department would be held in August last; then the examination was postponed to September; and at the end of that month it was again put off—the War Office at the same time expressing a hope that the decision of the Treasury would be given in time for the examination to be held before the opening of the Army Medical School at Netley. The session of that School begins on November 1, and the new Warrant has not yet appeared. It is more than probable, therefore, that during a third session there will be no medical officers of the Queen's to attend the classes at that highly important and efficient, but costly, School. The whole matter constitutes a grave scandal, and the long delay that has occurred makes it difficult to believe that the Warrant, when it does appear, will prove satisfactory. It is well enough known what are the chief requirements necessary to satisfy the Department—viz., the full recognition of the medical officers as a part of the Army, with rank, privileges, honours, and rewards counted as their rightful due, equally with the combatant officers: and no mere increase of pay without this recognition will make the Service attractive to eligible candidates; though, at the same time, it is disgraceful that the Treasury should haggle over any increase of pay that the War Office may consider necessary. The War Office Committee admitted that the medical officers had not received their due share of honours and rewards, and strongly recommended that this grievance should be remedied. But as yet no proof has been given that this recommendation will be carried out. The Indian correspondent of the *Times*, indeed, in a communication dated October 26, does state that a General Order has been issued, highly laudatory of the services of the Medical Department during the Afghan campaign and the return march to India; and the names of the Surgeon-General

and ten other officers are particularly mentioned, as well as those of twenty-four surgeons serving with the different columns and base hospitals. If this is true, and a fair distribution of honours and rewards follows, it will be well, on the principle of "Better late than never." But it is a great pity, to say the least, that any delay should be permitted in such matters. *Bis dat, qui cito dat.* The Army Medical Officers suffered terribly during the Afghan campaign and in the return march—much more severely in proportion to the numbers employed than did the "combatant" officers,—and no valid reason can be given why their services should not be promptly recognised. One other reform, of which we have more than once spoken, is absolutely necessary. The faith of the Army Medical Officers in Royal Warrants has been utterly destroyed, and some means of restoring it *must* be found.

Meanwhile the Indian Medical Service retains its popularity, and though there have at times been rumours of approaching meddling and muddling with that Service also, it seems more than probable that the authorities in India will take warning from the condition of the Army Medical Department, and possible that they may seek to so increase the numerical strength of their own Army Medical Service as to enable them to supply surgeons to the British troops in India. In this way these would be entirely independent of the Army Medical Department in Whitehall-yard.

LIBEL.

THERE can be no doubt but that, with the development of what its members delight to call "the fourth estate," we have had a new kind of malfeasance introduced among us. In olden time, when one man told lies with regard to another, or even in the remotest form insulted him, he was liable to be summoned to single combat. But these days have passed away. Now, as has been sarcastically remarked, a few pounds, more or less, no matter whence it comes, will satisfy the infliction of any indignity to the finest honour. Nor is even this the whole mischief, for by another singular rule of law the man who may be altogether innocent of offence—conducting his business, as most do, with a due reliance on subordinates—may suddenly be haled before a magistrate for *publishing*, not for *writing*, a libel, and summarily sent to prison. This scapegoat kind of business is too much in vogue for the real mischief-makers to be readily come at.

We are not lawyers enough to tell where the difficulty lies, but surely if what is libellous is written and inadvertently printed, the proper person to fall back upon is the writer, not the publisher—provided always that the latter is not as guilty as the former. But libel has of late become such a feature of modern social life that it is high time something was done with regard to its law. As far as we understand the law, as it now stands, innocent men may be punished, and scoundrels' practised in the art of libelling with safety, may escape with impunity.

It cannot be denied that the public are mainly to blame for this. Were there no demand for scandal, the nearer the libellous the better, we should have no manufacture of it; but when people will run after and purchase gladly the veriest outcome of the mud-rake, the chances of profit are too great to prevent certain penniless penmen from incurring the chances of legal punishment. Examples of this we now have too frequently before us—nay, more, a good action for libel is eagerly sought for by certain periodicals as a capital advertisement, or as a means of getting an unwilling witness into the witness-box, there to be lacerated by ruthless advocates. Men may be so insulted in their own persons, or in that of their relations, as to be driven by the opinion of those among whom they live—which means to them quiet

life—to take proceedings in such cases; and then, once in the witness-box, everything a man may have done even as a baby in the cradle may in effect be brought up against him by a skilled cross-examination. The law of libel and its practice should surely be amended so as to prevent such occurrences.

But what, after all, is the law of libel? It is mainly judge-made law, and is embodied in no one statute, though Lord Campbell's Act did much to clear up the matter. But in this shape and form it is sufficiently elastic. A great deal is left to the jury; and juries have their little crotchets. Somebody they might like to see punished; somebody they might desire to go unharmed. And when the judge puts it thus to them—that a libel is something which will cause any one to be held up to "HATRED, RIDICULE, OR CONTEMPT,"—there is surely a wide enough margin left for personal feeling and peculiar notions.

To us it seems that there are at least two widely different kinds of libel according to the law. There are many cases of libel where the writer and publisher are only fulfilling a public duty in committing the offence. Let us take a simple illustration from our own professional experience. Sometimes it becomes the duty of a medical paper to warn its readers, and through them the public, as to the character and proceedings of some unprincipled quack. There can be no doubt that in such a case, if the man is bold enough and stout enough, he may bring an action. True, there is before his eyes the Vexatious Indictment Act, but that will not prevent heavy legal expenses being incurred in fulfilling a public duty. Such actions for libel stand altogether apart from another group, where the vilest slanders are concocted simply for increasing the sale of a disreputable print, and increasing in a corresponding degree the incomes of those connected with it. Here any degree of severity in the law would be pardonable, and such cases ought, we think, to be placed in a totally different category from those we have just referred to. Instances of the former will readily recur to our readers' recollection, and of the latter we have recently had at least one notorious example before us at the Old Bailey. Assuredly such papers and such publishers ought to be put down with a high hand. It is a pity that some more practised and more cunning should escape.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

WE have already made some observations on the mode of conducting our medical societies in general, carefully avoiding reference to any one in particular. This time we venture to say a word or two as regards the most important of these—the Royal Medical and Chirurgical Society—whose *imprimatur* is looked upon as being only second to that of the Royal Colleges of Physicians and Surgeons, and which is the only representative in this country of anything like an *Académie de Médecine*. It would indeed be difficult to find any society or academy of medicine, as far as we know, manned better than is this Society at the present time. As President we have Mr. Erichsen, one of the best read and most practical—in short, one of the most distinguished surgeons of the day. As Medical Secretary there is Dr. Andrews, now Senior Physician to St. Bartholomew's Hospital, than whom it would be hard to find an abler man or a better physician. As Surgical Secretary we have Mr. Holmes, a whole host in himself—not the least valuable when sound criticism is needed, as often it is.

To give a sketch of the proceedings on Tuesday evening might be the best way of bringing home what we desire to enforce. First came a report from a committee which had been appointed to consider the relative values of the Sylvester

and Howard modes of restoring suspended animation where due to asphyxia. The report was described as an interim one, but, whether interim or not, our view is that it should never have been made. The one merit it possessed was its perfect straightforwardness and honesty. But experiments were made on only two subjects, both at some considerable time after death, when the muscles and ligaments had become more or less stiffened. In one it was found afterwards that the lungs were thoroughly disorganised, and the chest full of fluid; in the other, that some of the ribs were broken. A report founded on such observations must seem to most people somewhat of a caricature. Yet this report was discussed, and the discussion was even introduced by a speech from the chair. It was followed up most ably from various points of view, but chiefly as regards anæsthesia and the sudden occurrence of apparent death under the influence of anæsthetics. In this respect the discussion, as it seemed to us, was hardly fair, inasmuch as Howard's method is intended expressly for resuscitation in case of drowning, and the very first act recommended under it is by a series of motions to get rid of any fluid which may be expressed from the chest and stomach. No doubt the ideas elicited were valuable, but they came to a certain extent *malapropos*.

The next two papers referred mainly to abnormalities of an unusual kind. They were the work of Dr. Ord—in one instance in conjunction with Dr. Brodie Sewell—but they were hardly of practical interest. Mr. Spencer Wells, however, followed them up with a few important remarks of a highly practical nature. Then at ten minutes to the ordinary hour of closing came a short but exceedingly interesting communication from Mr. Pye, of St. Mary's, relating to a case where there was complete necrosis, ending in removal of the shaft of the tibia. We cannot help thinking that it was an injustice to the author to take such a paper at such a time. Surely it is better to adjourn the reading of a paper and its discussion to a subsequent occasion than to have it dealt with in the imperfect fashion which alone is possible at such an hour. It is the more to be regretted in this instance, as the paper elicited important differences of opinion between two such surgeons as Mr. Savory and Mr. Holmes. There was the usual postponement of the hour of rising for a few minutes, with, in the result, some admirable observations from Mr. Holmes; but, as we contend, this practice had better be departed from, or rather resorted to as seldom as possible. It is good for no one—least of all, as we hold, for the reader of the paper.

THE WEEK.

TOPICS OF THE DAY.

At the meeting of the City Commission of Sewers held last week, Dr. Sedgwick Saunders, the Medical Officer of Health for the City, reported a serious outbreak of measles and scarlet fever in the neighbourhood of Fetter-lane, and mainly in connexion with the children attending the Greystock School Board School. On his first visit to the school he found forty-two infants absent out of 125 upon the books. The head master was away ill; and the head mistress, though at her post, was so unwell as to be unfit for duty. He communicated with the School Board on the subject, and recommended that the school should be closed for a month. The Board replied that, after consideration, they had decided that the school should not be altogether closed, but that no infected children should be admitted, and that the building should be thoroughly fumigated. This, Dr. Saunders thought, was not sufficient; and his opinion in that respect was confirmed by the Medical Officer of the Local Government Board. On a second occasion he visited the school, and found that forty-nine infants were away out of 129; the governess was

still very unwell, and one of the female teachers was away ill. He considered that the only means of stamping out the disease was the entire closing of the school, and this he strongly recommended. It was moved and unanimously agreed to—"That the matter be referred to the Sanitary Committee, with a view to immediate action being taken." In reference to some dwellings in Cree Church-lane, and Three Herring-court, Leadenhall-street, in which in five houses 120 people resided, Dr. Saunders reported that they formed a pest spot in the City, and ought to be removed; and Mr. J. Cox, in moving that this matter be also referred to the Sanitary Committee, said that he knew that the place in question was a "warren of paupers."

A remarkable case of death from misadventure is reported from Dublin, where an inquest was recently held on the body of Miss Frances Chapman, a governess, who died last week from tetanus, caused by subcutaneous injection of morphia by her own hand. Dr. Abraham Meldon, who was called in to attend her, found her affected with lockjaw. She told him that for years she had been in the habit, when attacked by neuralgia (to which she was subject), of injecting morphia hypodermically, and that she had used twelve grains of morphia in an injection that morning. There was no case on record of a similar quantity having been used by any other person. He was of opinion that the tetanus in this case must have been caused by injury to some nerve by the needle. The use of hypodermic injections by private persons was highly dangerous; he knew of two cases of lockjaw brought on by the unskilful use of the needles. He had made a post-mortem examination in this case, and found all the internal organs in a perfectly healthy condition. The entire front of her person was, however, covered with innumerable punctured wounds produced by the needle. In answer to the coroner, who said that several medical men thought she might have obtained strychnine in place of morphia, Dr. Meldon said he was satisfied she had not used strychnine. He thought there should be some restriction placed upon the sale of morphia, even when ordered in prescriptions. It was, however, evident that the deceased knew the effects of morphia, and did not use it for a poisonous purpose; he did not think she could have been poisoned by it, as she had grown so accustomed to its use. Her death was evidently caused by the wound she inflicted on herself, and was purely the result of misadventure. The jury found a verdict in accordance with this opinion.

A serious outbreak of typhoid fever is reported as having occurred at the Cheshire County Lunatic Asylum, at Upton, near Chester. About three weeks ago, Dr. Lawrence, the House-Surgeon, was attacked with this disease, and since then the Chaplain (the Rev. R. Congreve) and his wife, and several of the warders and patients, have fallen ill from the malady. Altogether, up to the present time about twelve persons have been attacked, and all the cases have been strictly isolated so as to prevent the spread of the malady. Four patients suffering from other complaints have also been removed to the Chester Infirmary for greater safety. No facts accounting for the outbreak have yet been made public.

The necessity of occasional sanitary inspection of almshouses was shown at the last week's meeting of the Richmond Board of Guardians, when the master of the workhouse reported that William Trebble, an old man, had recently been brought to the house from the Church Almshouses in a most deplorable state of filth. The porter who had taken him to the house described the state of the room in which he found the man as being most shocking. The master further said this was not the first case of the kind that they had had from the almshouses of the parish, and mentioned two old women who had been brought into the workhouse from Hickley's Almshouses in a most filthy state

A guardian suggested that the case of Trebble, now before them, ought to be investigated by the inspector of nuisances; and after some discussion the clerk was instructed to direct the attention of the trustees of the almshouses to the matter.

The members of the Sanitary Institute of Great Britain brought their Congress for the year 1879 to a close at Croydon on Saturday last. The papers read and discussed at this Congress numbered nearly forty, and although it was intended that the sectional meetings should terminate on Friday, it was found necessary to hold a supplementary sitting, at which Dr. B. W. Richardson presided, the following papers being read, with only a brief discussion upon each:—"On Scientific Quarters for British Soldiers," by Dr. Balbirnie; "On Ventilation of Buildings," by Mr. J. E. Ellison; "On Disinfection of Excreta," by Dr. Soper; "On Purification and Softening of Water by Dr. Clarke's Method," by Mr. Potter. The results of the Congress are held to be very satisfactory by the members of the Institute, and its President expresses himself as not in despair that his ideal of "Salut-land" may, in some modified form, yet be carried out. In the afternoon an excursion was made, by invitation, to the North Surrey District Industrial Orphanage at Anerley. The Exhibition of Sanitary Appliances will remain open until the 7th prox., and on the 8th there will be free admission to working-men, and in the evening prominent members of the Institute have promised to deliver lectures.

Lord Stamford has presented to the town of Altrincham sixteen acres of land on Hale Moss, for the purpose of forming a public park or recreation ground. The cost of laying out and fencing the ground will be borne by the rate-payers, and is estimated to amount to £4500. It is expected that Lord Stamford will open the park next June. Lord Bradford has also offered, on certain terms, to give forty-six acres of land at Reed's Wood, Walsall, for a public recreation ground. It is further announced that the Mayor of Crewe has paid into the bank the sum of £500 towards providing a public park for the town, the donation being made in lieu of giving banquets during his year of office. Memorials addressed to the justices of the peace for the county are being circulated through Surrey, and the signatures of rate-payers are asked to the following petition:—"That the south-east part of London is greatly in want of recreation grounds for the population; that the pulling down of Horsemonger-lane Gaol gives a good opportunity either to grant the site of the said gaol as a gift to the public, or else that you will sell it on reasonable terms to some public body for the use of the neighbourhood; and that if you have not the legal power to carry out this suggestion, you will apply to Parliament to grant you powers for that purpose."

In a blue-book of 442 pages, published last week, are printed minutes of evidence taken by the Select Committee of the House of Commons on the Medical Act (1858) Amendment (No. 3) Bill, together with the proceedings of the Committee.

THE NUMBERS OF MEDICAL STUDENTS.

VARIOUS accounts, more or less elaborate, and for the most part equally unreliable, have been published as to the numbers of students who have entered the various medical schools this year. The most which can be said with any semblance of accuracy is, that the numbers are unusually large. At St. Bartholomew's nearly 160 have entered, at Guy's nearly as many, at King's 60, at the London about the same number of full entries, at Charing-cross 41; and all the other schools, with one or at most two trifling exceptions, have more pupils than usual. Various reasons have been adduced

for this, one being that the present condition of trade hinders young men from seeking a career in that direction, and turns them to the professions. We doubt if they will find unbounded prosperity in any of them—perhaps least of all in ours.

THE NEW ROYAL INFIRMARY, EDINBURGH.

THIS week the New Royal Infirmary at Edinburgh was opened with due ceremony by the Lord Provost in the presence of a multitude numbering between 12,000 and 15,000. There were also present the managers of the Infirmary, the members of the Senatus Academicus of the University, representatives of the Royal College of Physicians, the Royal College of Surgeons, and the College of Justice, the clergy of the different denominations, the Merchant Company, the Chamber of Commerce, the Grand Lodge of Freemasons of Scotland, the Town Council of Leith, the Town Council of Portobello, and the Royal Academy. Addresses were delivered by Principal Sir Alexander Grant; Dr. Peddie, President of the Royal College of Physicians; Mr. Imlach, President of the Royal College of Surgeons; and Mr. James Cowen, M.P. In the evening the students had a torch-light procession in honour of the event.

The site of the Infirmary itself is what was formerly George Watson's Hospital, and the Infirmary has been erected on the pavilion principle. There are medical and surgical divisions, together with an administrative and a pathological department. The two divisions are separated from each other by the administrative department. The surgical division contains about twenty wards, with beds for 285 patients, and a ward for students, with ten beds. The medical division contains twelve wards, with 276 beds. In the administrative department of the surgical division there are two large classrooms for chemical demonstrations, and an operating theatre capable of seating between 400 and 500 students. The central buildings, occupied by the administrative department, are surmounted by a spire 134 feet in height. The Infirmary will altogether accommodate about 600 patients, or 140 more than the old Infirmary. The cost of the buildings, with the site, will be about £340,000.

THE SANITARY INSTITUTE.

LAST week we devoted some space to a criticism of Dr. Richardson's Presidential Address, delivered before the Congress of the Sanitary Institute at Croydon. We cannot do more at present than mention the names of some of the other principal orators on the occasion. Dr. Alfred Carpenter delivered an address on the First Principles of Sanitary Work, and Dr. Corfield spoke on Sanitary Fallacies. We confess that much of the oratory seemed to us of too crude and general a character to be of much assistance in the advancement of sanitary work, where action not so much as utterance is now required. We notice elsewhere the other work before the Congress.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

THE first meeting of the twenty-fourth session of this Society was held at the Royal Kent Dispensary, Greenwich-road, on Friday, October 3, Mr. A. Roper (President) in the chair. After the officers for the ensuing session (1879-80) had been elected, Mr. A. Roper vacated the chair in favour of Mr. J. P. Purvis, who then delivered an inaugural address, in which he considered the several advances made in surgery, etc., and then dwelt on vaccination and its prophylactic action, citing the report of the Small-pox Hospital. He next considered the advisability of adopting animal vaccination, and said he hoped the day would not be far distant when the Government would establish animal vaccine stations at various parts.

OXFORD EXAMINATIONS FOR THE DEGREE OF M.B. AND IN PREVENTIVE MEDICINE AND PUBLIC HEALTH.

EXAMINATIONS for the degree of Bachelor of Medicine, both for the first (or scientific) and the second (or practical) portions, and an examination for the certificate in State medicine and the public health, will commence early in December at Oxford. The days and hours for each examination will be hereafter notified. Intending candidates are requested to send their names to the Professor of Medicine at the Museum on or before Friday, November 14.

THE HEALTH OF ST. MARYLEBONE PARISH.

THE report of Dr. John Whitmore, the Medical Officer of Health for the parish of St. Marylebone, for the months of August and September last, adds one more testimony to the generally healthy influence of the late exceptional summer weather. During the nine weeks ending September 27 last only 502 deaths were registered in the parish, representing an annual death-rate of 18.17 per 1000 of the population, which is considerably below the death-rate of the corresponding two months in many previous years. From diseases of the zymotic class the death-rate was also below the average, and with regard to diarrhoea it was considerably so, only twelve deaths having been registered from that disease during August, and thirty during September. The almost unexampled low temperature of the past three months has, Dr. Whitmore remarks, undoubtedly been instrumental in checking the tendency to diarrhoea, so common amongst infants during the summer months, and serves to show that a high temperature is a most important factor in the production of the disease, more especially where infants suffering from it are placed under bad sanitary conditions, and are compelled to inhale the poisonous atmosphere of close and ill-ventilated rooms, these latter conditions materially increasing the fatality of the disease.

ROYAL COLLEGE OF SURGEONS, IRELAND.

THE Introductory Address on the occasion of the opening of the session 1879-80 of the School of Surgery was delivered on Monday, the 27th ult., in the Theatre of the College on Stephen's-green, Dublin. Amongst those present was Surgeon-Major Reynolds, V.C., of Rorke's Drift memory. He received a very enthusiastic and gratifying reception. The address was delivered by Dr. William Roe, Professor of Midwifery in the School of Surgery, who, amongst other things, said he had much pleasure in stating that the Professors had resolved to resume the prize system, and in April next would offer prizes to the amount of £65, and also certificates of merit. In the first year the prizes would be £10 and £5; in the second £14 and £6; and in the third £20 and £10. The subjects would be—in the first year, anatomy, physiology, and surgery; in the second, the same subjects with the additions of botany, materia medica, and chemistry; and in the third year, anatomy, physiology, surgery, midwifery, medical jurisprudence, and medicine. He remarked, as many before have, on the fact that in this country high honours have never yet been attained by any practising member of the profession, and that State dignities seem to be thought incompatible with scientific attainments, for although the highest dignities of the State are open to members of the Church and Bar, none are provided for members of the medical profession. He trusted, however, that this unsatisfactory state of things was drawing to a close, and that the day was not far distant when those who have devoted their lives to science and the benefit of their fellow-creatures may, in this country, receive the honour which is accorded to them in France, Russia, and Austria, and which is even here bestowed upon distinguished members of the other

learned professions. In a subsequent part of his address, Dr. Roe in unsparing language criticised the Poor-law administration of Ireland, and the action of the Government with regard to Irish Prison Surgeons and to Army Medical Officers. Among the later he mentioned Surgeon-Major Reynolds in complimentary terms, and concluded as follows:—"The list of those who have lost their lives is, indeed, a long one, while the sad end of Ambrose Hamilton Kelly, one of our own licentiates, the medical officer in charge of the ill-fated Cabul Embassy, adds another victim to the death-roll. He was a native of this city, and received his medical education in Steevens' Hospital, where, from his genial manner and kindness of heart, he made many friends. Although he entered the Indian Service only in 1869, he was present in two campaigns, for which he was decorated with medal and clasp. No braver or better officer ever served her Majesty, and no man in the Service enjoyed a greater amount of esteem and respect. If time permitted many others might be mentioned whose bravery and devotion to duty should fill our hearts with pride. No charge of cowardice or neglect of duty has been urged against any of our medical brethren, and yet we find that honours are only given where they could not be withheld." Dr. Roe concluded amid applause.

THE MANCHESTER SANITARY ASSOCIATION.

THE Committee of the Manchester and Salford Sanitary Association have issued their report for the year 1878, in which they state that the first matter which engaged their attention during the past year was the consideration of the plan adopted in Edinburgh for the sanitary inspection of dwelling-houses and other premises by skilled engineers. Hitherto, the high fees involved in the employment of such professional skill precluded all except the wealthy from investigating the healthiness of their houses. But as the experience obtained in Edinburgh proved that by organising inspection on a large scale the advantages of the best available skill might be placed within the reach of all, the Manchester Association appointed two sanitary engineers; and the experience of these gentlemen, since they commenced their work, coincides completely with that of the Edinburgh Association. Indeed, it more than realises the worst suspicions of the Committee—viz., that unhealthy conditions prevail in all classes of houses in Manchester, not merely to an unsuspected but to a startling extent. There appears to be no objection to the development of these local sanitary associations; that in Edinburgh has been found a great success, and, as they are intended to be self-supporting, they must prove a useful assistance to the labours of local medical officers of health, without involving extra expense on the part of parochial authorities.

LICENTIATES IN DENTISTRY.—The examinations for this licence of the Royal College of Surgeons of England have been much improved in the practical direction. Patients are introduced at the practical examination; and, in addition to any other practical work, each candidate has to make a gold filling. He must have prepared the cavity to be treated on a previous occasion, so that nothing more has to be done but to fill in the gold. The fillings are such as require from half to three-quarters of an hour's work. Each candidate is required to bring all his own plugging instruments and materials, rubber, dam, dams, and gold.

CHAPS OF THE NIPPLE.—Dr. Hausmann recommends a solution of five grammes of carbolic acid and 100 grammes of distilled water. The nipple must be thoroughly cleansed before being presented to the infant. This application is less painful than nitrate of silver, and rapidly heals the fissures. Dr. Steiner has also tried thymol solution, of one part to 1000; but he has not found it so useful as the carbolic acid solution.—*Union Méd.*, October 21.

FROM ABROAD.

OPERATIONS IN THE SUBJECTS OF CONSTITUTIONAL DISEASE.

AMONG the papers which excited most interest at the French Medical Congress at Amsterdam was one by Prof. Verneuil upon a subject to which he has paid much attention, entitled "The Indications and Contra-indications for Operations in the Subjects of Constitutional Disease." No full report of the essay has as yet been published, but the following are the conclusions which the lecturer arrives at:—

"1. Surgical operations are not formally contra-indicated in the subjects of constitutional disease. They are even often permissible, frequently useful, and sometimes indispensable. 2. But their prognosis is always far more serious than in healthy persons, being especially more uncertain and more difficult to establish. There is nothing which enables us to foresee with any certainty the favourable or mischievous influence which the traumatism may exert on the general disease, nor the manner in which this disease in its turn may react on the local reparative process. 3. The prognosis, moreover, varies in the different constitutional diseases, and also in each of these considered separately. It differs also according to the form these may affect, the degree they have attained, and chiefly according to the more or less extensive and considerable alterations which the organic humours and solids may have undergone. 4. The danger inherent to the diathesis is at its minimum when this is still in a condition of dyscrasis; it is notably increased when lesions appear which are chemically and histologically appreciable; and it becomes extreme when the great viscera—the liver, kidneys, lungs, heart, or spleen—present advanced lesions, as sclerosis, steatosis, amylosis, or phlogosis, or when they are invaded by the pathological products special to certain diathetic conditions—as tubercle, gummata, carcinoma, and various kinds of neoplasm. 5. The subject of a diathesis should not be deprived of the benefit of surgical intervention, even when this is perilous. The practitioner should endeavour to attenuate the gravity of the prognosis and secure the success of the operation; and he will not infrequently accomplish this by taking the greatest care in the choice of the most opportune moment, the best procedure, the most efficacious mode of dressing, and especially by instituting during and after the operation, and when possible even before it, the hygienic and medical treatment specially intended to combat the constitutional disease. 6. In order to establish firmly the indications and contra-indications of operations, to decide in favour of interference or resign himself to abstention, and to be able to calculate the chances of success or failure with an approach to precision, the practitioner should be thoroughly informed concerning the pathogeny, the pathology, the natural evolution, the terminations, and the medical treatment of constitutional diseases. Such information, which perhaps is not sufficiently possessed by all surgeons, would prevent rather than encourage recourse to bloody operations, and give more confidence than is generally entertained in the efforts of nature, seconding these by a relatively mild therapeutical procedure. 7. A conscientious examination of both the immediate and remote results of operations performed on the subject of constitutional diseases leads to the dissipation of much illusion as regards the powers of surgical art. It is very painful to declare, but probity forces us to do so, that complete and durable triumphs are of rare occurrence. A considerable number of operative successes are doubtless obtained, but not of therapeutical successes. We remove a manifestation of the diathesis, or of an intercurrent affection: but on many occasions the constitutional disease then gains in intensity and rapidity; and many a scrofulous or cancerous patient would have lived for a longer period if he had remained under medical tutelage instead of having passed under the hands of the operator. 8. It is only just to add that while oftener palliative than curative, the operations in question are nevertheless sometimes of great utility. In extreme cases they may prolong life, render suffering less cruel, and, at least for the patient, open the door to hope. In less serious cases, and when the constitutional disease can be treated with advantage, an operation favours the cure by gaining time, by suppressing an imme-

diately cause of danger, and by rendering the field more free for medical therapeutics."

SURGEON-GENERAL HAMMOND.

All of our readers who have any recollection of the events of the great civil war in America must remember the conspicuous and successful part which Dr. Hammond when Surgeon-General of the United States Army took in the organisation of the Hospital and Medical Service—constituting it, in fact, in some respects a model for the instruction of the medical services in the great wars which have subsequently occurred. In the midst of his career of usefulness he was suddenly dismissed from the army on the charge of fraudulent practices. This charge was generally regarded at the time as a pretext raised for political purposes by the Secretary of War, and, at all events, could only be considered as a misinterpretation of an Act which he had to administer. However, the intrigue was for the time successful, and Dr. Hammond was dismissed, after all his services—to all appearances, a man ruined in reputation and prospects. Few may be aware that he is the same Dr. Hammond who has now acquired so prominent a position as a writer upon diseases of the nervous system, being in the possession of a large practice. That he has not attained this position without a great struggle may be seen from a statement published in the *Louisville Medical News*, October 11, purporting to be the result of a conversation which he had with one of the "interviewers" who constitute so important a feature of the New York press.

In this statement Dr. Hammond says that after his dismissal he resolved to endeavour to achieve success in his profession at New York. "When I arrived here I had nothing, and was obliged to borrow money from whomsoever would lend it me, in order to support myself. There were times when I really did not know how I was to get my next meal. I supported myself as best I could, and took to writing for the newspapers. My struggle at times was desperate." Arriving at New York in 1864, he commenced practice in 1865, but made only from \$60 to \$300 a month, and began to despair of success, when he received the appointment of travelling attendant to a rich man's son, and on his return, in 1866, received the balance of about \$17,000 for his services. This gave him something to start with in renewed efforts to make a practice; but at first his progress was extremely slow, making some \$10 a month. In 1867, however, he began to get on, making \$2225 in that year, which in 1868 increased to \$9600. The receipts went on increasing, until in 1878 they had reached upwards of \$60,000.

"I looked back over the last fourteen years of my life with much satisfaction, when I reviewed what I had done under the heavy load of adversity and odium which I had been forced to carry. I felt that the time had now come for me to seek moral redress, yet I was fearful that if I should make any attempt to get back on the list, it would be said that my effort was simply a scheme to take money out of the Treasury. I did not want people to think or to say that I was after the money, so that with great care I drew up a Bill which, if passed, would authorise the President to review the proceedings of the court-martial which tried me, and to annul and set aside the findings and sentence, if proper to do so. Then, in order to meet any insinuations of greed on my part, I inscribed in the second section the proviso that I should not be entitled to back, present, or future pay or allowances of any kind whatsoever. My pay as Surgeon-General was \$6000, and had I insisted on the arrears being paid, the amount for fifteen years would be \$90,000. But I have asked nothing. While I have always felt that I have been unjustly treated, and that, too, through the fault of the Government, I also realised the fact that while in the years immediately succeeding my dismissal I suffered greatly, I was nevertheless placed in a position by that act wherein I could make ten times as much as if I had remained in the service as Surgeon-General. Taking this equitable view of it, I did not ask for the money."

The Bill giving the President the power of revising or revoking the sentence, if deemed advisable, passed the Senate with only one dissentient vote; and the *Boston Medical Journal* of September 25 prints the opinion of the present Secretary of War on Dr. Hammond's case. The President, in pursuance of the power given him by the Act of Congress, passed last March, has, on the recommendation contained in this opinion, annulled and set aside the findings and

sentence of the court-martial of 1864, and Dr. Hammond is placed on the retired list of the army as Surgeon-Major, without pay or allowance. In his "opinion" the Secretary of War goes through the charges and findings of the court-martial in detail, and declares them one and all groundless or unproven.

REVIEWS.

Des Paralysies Corticales du Membre Supérieur—Monoplégies Brachiales. Par le Dr. GASTON DECAISNE, Médaille de Bronze de l'Assistance Publique, etc. Paris: J. B. Baillière et Fils. 1879.

The Paralysis of the Arm due to Disease of the Cortex of the Brain, otherwise termed Brachial Monoplegias. By Dr. GASTON DECAISNE, Bronze Medallist of the Assistance Publique, etc. Paris: J. B. Baillière et Fils. 1879.

It does not seem so very long ago since the physician was contented to refer a hemiplegia to a unilateral lesion of the opposite side of the brain, which he generally localised in the corpus striatum. He knew nothing of hemiplegic paralysis due to cortical lesions—and no wonder, when the relation of the cortex cerebri to motor phenomena was scarcely suspected; still less, until Dr. Hughlings-Jackson undertook his laborious investigations of the meaning of partial paralysis limited to a few muscles of a limb, did he know that the study of small localised lesions of the brain was a profitable one. Since the publication of Hitzig and Ferrier's researches the subject of cerebral localisation has acquired an interest which is scarcely likely to die away again, and the connexion between the functions of particular regions of the brain and of particular co-ordinated muscular groups has been acknowledged, except by a few sceptical observers such as Brown-Séquard, to have a solid basis in fact. The essay of Dr. Decaisne accepts the idea of a motor region or centre in each cerebral hemisphere, which controls the movements of the superior extremity of the opposite side. For reasons clearly stated by the author, he believes that we are unable at present to absolutely define the limits of this centre in the cortex of the human brain. There is no doubt that it occupies the ascending frontal and parietal convolutions, but pathological observations, such as those with which Dr. Decaisne has illustrated his remarks both from his own experience and that of others, render it most probable that this centre extends also to part of the neighbouring frontal and parietal convolutions. As he points out, neither Hitzig, Ferrier, nor Charcot and Pitres, agree with one another as to the exact position of this centre. It is quite certain, however, that a lesion involving part of this region will, temporarily at least, be followed by a hemiplegia of certain muscles of the opposite arm, the extent of the paralysis varying with the extent of the lesion. Dr. Decaisne has collected thirty-five examples of this "brachial monoplegia," several of them of great interest and most carefully reported, and his remarks are mainly founded on an examination of this comparatively large material. The points which he brings out are briefly these:—The paralysis under discussion seldom affect all the muscles of the arm, generally only one or more groups of muscles; they are as a rule incomplete, the muscular force is weakened rather than obliterated; there is no loss of sensibility, nor of the perception of cold and heat, nor is the temperature of the limb affected at all in the vast majority of the cases. Trophic disturbances are also rare. There are two other diagnostic phenomena, either of which may be associated with these paralysis, namely, their tendency to extend to other groups of muscles than those first involved, and their transitoriness. Dr. Decaisne explains this latter feature of brachial monoplegia, which may occur even when the underlying cerebral lesion is permanent, by a supplementary function which becomes established in the healthy nerve-cells adjacent to the seat of the lesion, "*la suppléance des cellules voisines du siège de la lésion.*" This explanation he prefers, and we think justly, to that of Dr. Ferrier, who ascribes this supplementary function to the corpora striata. Looking at the present state of our knowledge of brachial monoplegia, as represented in the essay before us, we may say that an absolute diagnosis of the exact seat of the lesion is not possible as yet, but that a probable diagnosis can be made. It is well to remember

that this condition has been not unfrequently met with in phthisical persons, probably as the result of thrombosis. We shall not enter further into the etiology of these cortical lesions, but can refer our readers with confidence to Dr. Decaisne's excellent essay. As an unprejudiced attempt to deal with a comparatively modern development of nervous pathology, it deserves all praise, and its lucid style is well calculated to excite our interest in the subject it treats of.

Report and Record of the Operations of the Stafford House Committee, Russo-Turkish War, 1877-78. London: Spottiswoode and Co. 1879. Pp. 207.

THE Stafford House Committee for the Relief of Sick and Wounded Turkish Soldiers have just issued an exceedingly interesting report of their operations in Turkey during the recent war. We shall here only deal with the purely medical aspect of the Report.

Speaking generally, we think the Committee were wise in establishing a number of small ambulances and hospitals rather than one or two large ones. They seem to have been models of what such ambulances ought to be. The surgeons appear to have been largely employed at the front, and this we think is the proper place for them. It is there that, during and for a few days after a battle, every available surgeon will find more than enough to occupy him. The surgeons, too, seem to have been mounted, which is also another strong point. There are several references to the advantages of women-nurses, and many well-merited tributes are paid to those who went out on this hard but humane mission. Thus Mr. MacKellar in his report (page 176) says—"Much has been said against the nursing of Turkish soldiers by women. It was argued that female nurses would be constantly exposed to insult in their dealings with their patients. Lady Strangford and the nurses with her were unanimous in affirming that quite the contrary was the case: they found that Turkish patients were far more delicate in their relations with females than the average of male patients in an English hospital. In a conversation which I had with Djemil Pacha, the military commandant in Adrianople, he assured me that, even if Lady Strangford had done no greater work, she had broken down the barrier of Turkish prejudice against the employment of females in male hospitals, and that he was perfectly charmed with the result, and he hoped that in the future, in military and civil hospitals alike, women-nurses would be the rule, and not the exception." This is great praise, and a very remarkable acknowledgment of the value of the work done by women-nurses in Turkey.

The medical report was drawn up by a sub-committee specially appointed for the purpose, and presided over by Sir Joseph Fayrer. Good as the report is, Sir Joseph regrets that "so little should remain on permanent record of the experiences of a body of surgeons who had special opportunity of dealing on a large scale with matters of prominent interest to military medicine, surgery, and hygiene." Of course the Committee were wholly dependent on what their surgeons reported to them, and it is not a little surprising that amid the hurry and excitement of active warfare such a collection of reports as this volume contains was possible: it speaks volumes in favour of the manner in which the surgeons rose to the difficulties of their position. Among the reports may be specially mentioned that by Dr. McIvor, being a short account of Four Hundred Surgical Cases treated at Adrianople; Mr. Eccles', a paper on Certain Forms of Malarial Poisoning met with in Turkey; Dr. Pinkerton's, Surgical Experiences and Observations as an Ambulance Surgeon in Bulgaria during the Russo-Turkish War, etc. This last, an otherwise interesting paper, is, in our opinion, marred by its author attempting more than was expected of him. Thus, under "Duties of a Person Administering Chloroform," he gives us short and somewhat imperfect instructions as to what to do and what not to do. In a text-book this would have been quite in place, but it is hardly called for in such a report as this. Again, a dissertation on Lister's method of dressing wounds, with what Mr. Longmore thinks; and says, is perhaps scarcely in place in a short report of what ought to have been strictly personal experience. For the same reason, a description of Teale's amputation, the method of doing it, the advantages claimed, etc. (all of which is much better given in any of our text-books of

surgery), tends to spin out a report, which had better have been made as concise and practical as possible.

Mr. MacKellar's report, on the other hand, is unduly short. As a surgeon to a metropolitan hospital, with matured and varied experience in almost every part of the world and in many previous campaigns, he would have done a great service to have published a much more extended account of what he saw and learned by experience in this department of surgery. We can only imagine that he intends to supplement the present contribution at no distant date. He contributes an interesting suggestion to the subject of osteoplastic surgery, now so much in vogue; it is the Circassian method of treating compound fractures of the lower limbs. He says, "All splinters are carefully removed by them. If difficulty in reduction is experienced, protruding fragments are sawn off; if a hiatus remains, a piece of bone of a size and form calculated to fill the gap is taken from a foal, or, failing this, from a young bullock. This is put into the interspace and allowed to remain there. The limb is then put up in bandages soaked in a paste made of ground Indian corn and water thickened with white of egg." "I have never seen this actually done," he continues, but "I have seen old fractures said to have been so treated, and certainly their condition left nothing to be desired."

We have not space to follow the individual reports of the various surgeons; suffice it to say that all are interesting and will well repay perusal.

We must heartily congratulate the Stafford House Committee on their Report. From the medical aspect, we believe we are right in speaking of it as the first collective report which any society has published of the doings of the surgeons sent out by them. We hope that it will be the commencement of a series which the Red Cross Society of the future will issue on the completion of other campaigns that will need, and no doubt obtain, their support and sympathy.

PLOUGHING BY ELECTRICITY.—Some experiments have recently been tried with the Gramme machine of ploughing by electricity in the park attached to the factory of M. Menier, Deputy, at Noisel. Several furrows were ploughed at 700 metres distant from the motor power required to develop the current, the work of the plough being estimated at that done by two pair of oxen. The trials were made to show the possibility of causing a Fowler's plough with six shares to proceed at the speed of a metre per second; and so successful were they, that M. Menier gave instructions for an experiment to be instituted on a large scale. M. Henri Menier, his son, is about to make exclusive use of electricity in all the farms on his father's estate, the most distant being situated at five kilometres from the river Marne, the fall of which is the source of motor power, and costs nothing.—*Rev. Scientifique*, October 11.

THE FOOCHOW OPIUM ASYLUM.—In the *New York Med. Record*, September 13, an abstract is given from the first report by Dr. Osgood on the operation of this Asylum, which has been separated from the Medical Missions Hospital. The Asylum, Dr. Osgood states, is self-supporting. Opium is discontinued at once and entirely from the time of entering the Asylum, chloral hydrate and bromide of potassium being administered during the first three or four days as required, and a pill is given night and morning, containing belladonna, gentian, valerian, quinine, and ginger. Complications, such as diarrhoea and vomiting, are treated as they arise, and in some cases stimuli are required. In all cases good and easily-digested food is given every three or four hours. In all, over 1100 cases have been treated. After stating the success that has attended this treatment, expressing his opinion that the use of opium is an unmitigated curse, and describing the effects it produces, Dr. Osgood observes: "I am free to admit that there are some cases where opium is used constantly, in small quantities, for twenty or even thirty years, with comparatively little injury, but these cases are the exception. It is also true that a given amount of opium smoked is less injurious than when swallowed. I have never yet heard heathen Chinamen defend the use or sale of opium, but, on the contrary, they universally condemn them. The only apologists for the use of opium have been inhabitants of Christian lands, many of whom have had but little practical knowledge of the evil resulting."

GENERAL CORRESPONDENCE.

DRAINAGE-TUBES IN OVARIOTOMY.

LETTER FROM DR. G. G. BANTOCK.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the report of a case of antiseptic ovariectomy, in the last number of the *Medical Times and Gazette*, Dr. Bennett gives me credit which it is my duty at once to disclaim. Dr. Bennett tells us that he introduced a large drainage-tube, "as improved by Dr. Bantock." I have not even attempted to improve an instrument which appears to me incapable of improvement. I have seen drainage-tubes curiously bent and curved, and I have actually seen one with a large bulb at the lower end. How this instrument is to be got out I am at a loss to know. "How the apple got into the dumpling" is nothing to this problem. The tubes which I use are of various lengths and of various diameters, and they go by the name of Keith, who was the first to use this instrument rationally.

If any credit be due to me in this matter, it is in urging the more frequent use of the instrument. To this I attribute my recent success at the Samaritan Hospital, where my last twenty-four cases of completed ovariectomy all recovered. (I ought to mention that one of these, a non-drainage case, died of acute otitis three weeks after, in this respect following her mother.) In seven of these I used the drainage-tube; and it is with me a matter of conviction that several of these, if not all, must have died but for the drainage-tube. I am, moreover, confident that had I used this instrument more frequently in my earlier cases I should have shown a better table of total results.

No one has had such extensive experience of the drainage-tube as Dr. Keith, and I believe he in part attributes his extraordinary success to it. I believe I am correct in saying he is emphatically in favour of it.

The danger in ovariectomy is not from the effusion of pure blood, but from a mixture of blood and serum, and the drainage-tube is a most efficient instrument for its removal. I have no belief in its irritating effect on the peritoneum. My experience is wholly against this objection to its use.

I am, &c., GEO. GRANVILLE BANTOCK.

12, Granville-place, Portman-square, W., October 27.

THE WINES OF TOURAINE.

LETTER FROM DR. M. BAINES.

[To the Editor of the Medical Times and Gazette.]

SIR,—After having read your commendations of the Touraine wines in a recent issue of your journal, I venture to offer to you my experience and opinion of the same. About seven or eight years ago, an acquaintance of mine introduced into England several of the Touraine wines, and at his request I was induced, with others, to try the qualities of those imported. After an extensive trial of various kinds, I, with others, was compelled to form an adverse opinion on their quality, the wines being coarse, rough, and imperfectly fermented. My opinion was not hastily formed from tasting one or two samples, but was the result of an experience resulting from a fair and prolonged trial of the several classes of wine imported. The raspberry flavour of Bourgeuil was not conducive to the acceptance of the wine with the public, and I found that all the red wine soon lost character and became acid and turbid in my cellar, and was altogether vitiated. The white wines were better of their kind, and of more endurance, but their fault was their semi-sparkling character, which varied even in the same samples. The wines were sold as still wines, but every now and then a bottle would sparkle when drawn and decanted; but they certainly showed more character and vinosity than did the red wines. Putting aside these faults, the price of the wines did not recommend them, and, upon the whole, they formed a failure upon the market.

Your samples, just reported on, may have been of a more delicate character, but unless they were a decided advance on those I tasted, I am sure that the Touraine wine district will not find a market in this country for their products, which stand but little chance of acceptance by comparison with our moderately priced Bordeaux.

I am, &c.,
11, Cranley-place, S.W.

M. BAINES, M.D. Lond.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, OCTOBER 1.

ALFRED WILTSHIRE, M.D., Vice-President, in the Chair.

CHOLERA IN THE NEW-BORN.

MR. J. C. LUCAS read a paper on this subject. He gave two cases in which women suffering from cholera were delivered prematurely of children, both of which died a few hours after their birth with characteristic choleraic symptoms.

CÆSARIAN SECTION.

DR. BRAXTON HICKS exhibited, for Dr. R. P. Harris, of Philadelphia, photographs of a dwarf upon whom the Cæsar section had been performed during her labour, and who had died three days after of peritonitis.

DEFICIENT DEVELOPMENT.

MR. ALBAN DORAN read notes of a case of deficient development of the uterus, atresia of the os externum, atrophy of the ovaries, and insanity. The patient, aged thirty, died in Bethlem Hospital of bronchitis. She had only menstruated once, at the age of nineteen. She became masculine in appearance, and repulsive-looking, and finally insane. Dr. Savage made a necropsy, and gave the generative organs to the Royal College of Surgeons, where Mr. Doran examined them. The orifice of the vagina was circular, and measured three-quarters of an inch in diameter; the canal widened to an inch and a half in the middle, after which it rapidly contracted to an apex marked by a pin-hole aperture, which was impervious, and represented the os uteri. The uterus measured two inches from the fundus to the rudimentary os uteri. When fresh, the uterus felt like a flaccid, thin-walled cyst. The cavity contained about half a drachm of a white, semi-fluid, sebaceous-looking matter. The walls of the uterus measured only one-eighth of an inch at the thickest part.

CONGENITAL DOUBLE INGUINO-OVARIAN HERNIA.

DR. THOMAS CHAMBERS read notes of this case. E. D., aged twenty-four, had a lump in each groin as long as she could remember. Had never menstruated. Mammæ well developed. The tumours were acutely sensitive to the touch, movable, and oblong in shape. Hair absent over pubes. No uterus or ovaries could be discovered in natural situation. The swellings, presumably ovarian, were removed by incision. The patient made a complete recovery. Drs. John Williams and Galabin examined the tumours, and were of opinion that the bodies were testicles, the glandular structure of which had not undergone its normal development.

DR. WILTSHIRE said cases of true hernia of the ovary were rare, and that some supposed instances of it were examples of imperfect male creatures.

DR. GALABIN said that the microscopic structure of the organs resembled that of foetal testicles.

DR. JOHN WILLIAMS said that hernia of the ovary was undoubtedly met with, but it was nearly always acquired. There was no case recorded of congenital hernia of both ovaries in which the evidence could be trusted.

DR. ROUTH would have liked to know if the size of the mammæ was due to obesity or not.

ACOUSTIC SIGN AFTER DEATH OF FŒTUS.

THE PRESIDENT communicated for Dr. HARVEY a note on an acoustic sign heard after the death of the foetus. He heard a peculiar rustling sound over the whole uterine tumour. This has been described by Stoltz as due to gaseous decomposition of the liquor amnii after death of the foetus. The sound was between large and small crepitation, and the diagnosis based upon it was correct.

DR. J. BRUNTON thought the sound due to contraction of the muscular wall under the stethoscope.

DR. JOHN WILLIAMS could not understand how the bubbling of air could be heard after the escape of the liquor amnii.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, OCTOBER 17.

JOHN SYER BRISTOWE, M.D., F.R.C.P., President, in the Chair.

THE first meeting of the session 1879-80 of this Society was inaugurated by an address of the newly-elected President, Dr. J. Syer Bristowe, which we publish *verbatim* in another column.

At the preliminary meeting Dr. Dudfield made some remarks upon a circular letter which had been addressed to the metropolitan vestries, inquiring whether adequate provision had been made for the reception of patients suffering from infectious diseases in the hospitals provided originally for the reception of pauper cases only. He moved that the subject be referred to the Council for consideration and report.

DR. TRIFE said that he had replied to the circular inquiring upon what terms the Asylums Board were prepared to receive patients from the vestries. He believed that they were prepared to take definite action in this matter.

DR. DUDFIELD complained that at present the authorities will only consent to receive the certificate of a Poor-law doctor before removing cases to the hospital. He considers that any doctor's certificate should be received. It is needful that adequate remuneration be paid to the guardians for receiving cases other than paupers into their infirmaries.

DR. TRIPE, commenting upon the recently amended Artisans' and Labourers' Dwellings Act, said that a heavier burden was thrown upon the parishes than had been proposed in the rejected Bill of the Metropolitan Board of Works. The district surveyors seem very unwilling to carry out the stringent provisions of the new Act.

DR. TRIPE, referring to the meeting of magistrates at Edmonton for the purpose of licensing buildings to be used as cow-houses and slaughter-houses, said that a letter was read from the Metropolitan Board of Works objecting *in toto* to the magistrates licensing cow-keepers, and asking that all applications might for the present be adjourned. He hoped that the magistrates would not consent to adjourn the applications. It was alleged that the applicants had not complied with the regulations of the Board of Works, but no explanation was given of the reasons for objecting to the licences in question. Such a letter he considered *ultra vires* of the Act of Parliament, the Board of Works being powerless to stop the issue of licences without specification of objections. In the Slaughter-houses Act seven days' notice must be given before requiring fulfilment of conditions respecting needful alterations.

THE PATHOLOGICAL SOCIETY.

TUESDAY, OCTOBER 21.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

(Continued from page 487.)

PAPILLOMA OF FALLOPIAN TUBE.

MR. ALBAN DORAN exhibited a specimen of a Fallopian tube containing papillomatous outgrowths. It had been removed from a maiden lady, aged fifty, who twenty months before operation had consulted Mr. Bickersteth, of Liverpool, for symptoms which appeared due to inflammation of the right ovary. Shortly afterwards she suffered from pleurisy, followed by ascites. The pleura was tapped twice, the abdomen four times; and in all these instances the fluid brought away was highly albuminous, and contained numerous large vacuolated cells. A tumour was detected in the right iliac fossa, which was removed by Mr. Spencer Wells. The right ovary was healthy. No secondary deposits were found in the abdominal cavity during the operation. The patient recovered, but the pleurisy had recurred last August, without any symptoms of intra-thoracic tumour. The morbid growth was found to be the right Fallopian tube, much dilated by a mass of outgrowths from its interior; the fimbriated extremity was patent, and a mucoid secretion escaped through it into the peritoneal cavity. The outgrowths consisted of a stroma

of connective-tissue cells, invested by a single layer of columnar epithelium. Numerous small cysts were found among the papillæ, formed, as microscopical specimens showed, by the fusion of the apices of contiguous secondary offshoots, which were very abundant. The growth did not appear to be either cancerous or adenomatous; it was probably a result of chronic inflammatory change, to judge from the history. The morbid discharge from the open fimbriated extremity of the tube had probably irritated the peritoneum, and caused the ascites. The fimbriæ almost invariably close up the abdominal end of the tube in inflammation, otherwise dropsy would be more frequent in these cases. The growth and its complication resemble instances of ascites caused by papillary outgrowths from ruptured cysts or from the bare surface of the ovary—a condition observed already by Mr. Wells, Gusserow, Eberth, and, in a recent case, by Mr. Durham.

Mr. KNOWSLEY THORNTON remarked that the pathology of these papillomatous growths was not yet well known. The most common origin was the development of a cyst of the broad ligament into a papilloma-bearing fungating growth, and he suspected that the case just described came under this category. A few cases have been found where the whole cellular tissue of the broad ligament was full of papilloma-bearing cysts. In Mr. Doran's case the first attack of pain, etc., had probably been due to the bursting of such a cyst, which had fungated through into the Fallopian tube; and such fungating cysts were known to recur. Very little indeed was yet known of the occurrence of papilloma of the tube itself. It was not rare to have distant organs affected in fungating disease of the pelvic viscera. He had lately removed a tumour, in a case which bore out the view he had taken of Mr. Doran's specimen, from the person of a lady who had been tapped for cystic disease when nineteen. She married at twenty-one, and subsequently had nine children. But seven years after the birth of the last child she began to have ascites, which disappeared more than once with copious diuresis, but always returned. On operating he found a small ulcerated opening into the Fallopian tube, by which fluid had escaped into the peritoneum. In most of these cases the ascites ceased when the tumour was removed. But the innocence or malignancy of these growths was a puzzle.

Dr. DAY had seen Mr. Doran's case, and had detected the pleuritic effusion. He had observed that when thoracic disease came on as the result of abdominal effusion or tumour there was usually absence of cough and dyspnoea, especially when the abdominal enlargement had come on gradually. In such cases he had usually found the pleuritic effusion disappeared, without tapping, after the removal of the pelvic tumour.

Mr. DORAN contended that his specimen showed a distinct localisation of the papillomatous growths in the tube, and had nothing to do with the broad ligament, as in Mr. Thornton's case, which he had also seen. He had just learned that the pleuritic effusion had disappeared in the case he had related, and that the woman was in good health.

TWO CASES OF DISEASE OF SUPRA-RENAL CAPSULES WITHOUT BRONZING OF THE SKIN.

Dr. NORMAN MOORE showed these specimens. In the first case the capsules were those of a man aged twenty-five, who had died of phthisis. The apices of both lungs were puckered and adherent, and tubercular deposits were found in both lungs. The capsules were enlarged, hard, and contained caseous deposits, with only slight traces of the normal structure remaining. In the second case, the capsules were greatly enlarged and infiltrated with a sarcomatous new growth, the patient (also a man aged twenty-five) having died of sarcoma of the pericardium. In neither of these cases were there any general bronzing or unusual pigmentation of such parts as the nipples.

Dr. COUPLAND asked whether the semilunar ganglia and abdominal sympathetic had been examined, because it was well known that the supra-renal capsules might be affected, as with cancer, without the development of Addison's disease.

Dr. MOORE replied that the semilunar ganglia had been only roughly examined. In answer to the President, he was unable to say how long the patient had been ill.

Dr. WILKS remarked that Addison was quite aware that the characteristic bronzing did not result from all forms of disease of the supra-renal capsules. It was an idiopathic,

slow, inflammatory, destructive lesion of the capsules that produced Addison's disease; and it had been shown over and over again that accidental lesions of these organs (as cancer, etc.) were not followed by bronzing. In most cases of Addison's disease the capsules would be irretrievably gone, and exist as mere chalky masses, before the patients presented themselves. The disease killed only indirectly and slowly, probably through the sympathetic.

The PRESIDENT pointed out the importance of the element of time in the production of bronzing. If the patients die from other causes at an early stage of the lesion of the capsules, bronzing might not have been developed.

SARCOMA OF THE PERICARDIUM.

Dr. MOORE showed this fresh specimen, taken from the second case referred to above. It formed a large mass, growing from the base of the pericardium. The left lung was adherent over it, but apparently not at all infiltrated with the growth. The bronchial glands were infiltrated, but none of the abdominal organs except the supra-renal capsules. The cerebral hemispheres and the central ganglia of the brain contained several small tumours, which had, however, given rise to no symptoms. One of the tumours involved the third left frontal convolution, which was softened.

Dr. PYE-SMITH asked what part of the third left frontal convolution was affected, because it was only in its posterior portion and the adjoining parts of the insula that Broca located the centre for speech. Lesions of the anterior part of the convolution had often been found in cases where speech was not affected.

Dr. MOORE thought this case showed most softening in the anterior portion of the convolution.

XANTHELASMA MULTIPLEX.

Dr. WICKHAM LEGG exhibited a patient whose history afforded an instance of the very rare result of a disappearance of xanthelasma multiplex. The man had consulted Dr. Legg for jaundice in 1873. In August, 1876, he again presented himself, showing then well-marked patches of xanthelasma on the eyelids, elbows, knees, nates, and elsewhere. A few days ago he again turned up, and the patches seen in 1876 were now quite gone, leaving no trace except a little roughening on the elbows, with the exception that some patches remain on the eyelids, where they usually first appeared. This condition was usually developed with jaundice, and the fact that the patches had disappeared in this case would seem to controvert the common view that they resulted from fatty degeneration. Such a disappearance was beyond the common experience, but he referred to two similar cases, one of which had been recorded by Dr. Frank Smith, of Sheffield.

Dr. PYE-SMITH had seen Dr. Frank Smith's case, where the patches had certainly disappeared. There was no question but they were due to a fatty degeneration, but he did not see why the fat should not be absorbed.

Mr. HOWSE also thought the disease resulted from an outgrowth and fatty degeneration of fibrous elements. The fat might be absorbed, but he should expect that a more or less sclerotic change would remain.

The PRESIDENT inquired whether there had been any change in the condition of the patient's health during the disappearance of the patches. The affection was always associated with a constitutional cause. Not only jaundice, but minor hepatic derangements, especially with sick headache, or even pregnancy, might be a sufficient cause. It was fairly well established that the multiplex form was only a severer degree of the eyelid affection. He did not know that there was any evidence that the patches on the eyelids ever disappeared spontaneously or even diminished. But they had often remained stationary, and in several cases where they had been excised they had not returned. But he had never known them to disappear spontaneously from the eyelids.

Dr. CHURCH had seen Dr. Legg's patient, and he thought the skin was perfectly natural where the patches had been, so far as could be judged by digital examination. As to xanthelasma of the eyelids, he himself knew two families in which the disease was hereditary, and was not associated with a history of sick headache or hepatic disease.

Dr. LEGG was not able to get an accurate account of the patient's condition during the disappearance of the patches.

The following specimens were exhibited by card (without any oral communication):—

By the PRESIDENT—1. Gummata in the Lung and Testis. 2. An Alternating Calculus, consisting of layers of lithates and lithic acid, firmly incrustated with oxalate of lime. 3. Gummata of Testis from a boy, the subject of congenital syphilis.

By Dr. EVE—1. Congenital Hernia with Undescended Testicle. 2. Syphilitic Disease of the Testicle. 3. Patent Vaginal Process of Peritoneum.

By Mr. BARKER—Caries of Spine, affecting hip-joint and aorta.

THE CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 24.

Dr. GREENHOW, F.R.C.P., F.R.S., President, in the Chair.

THE LATE MR. CALLENDER.

THE President's announcement that he had just heard of the death of his immediate predecessor in office was heard by all present with the deepest sorrow.

CEREBRAL RHEUMATISM WITHOUT HYPERPYREXIA.

Dr. SOUTHEY read notes of two cases. The first was that of a temperate man, aged twenty-three, who had rheumatism complicated with pericarditis, in whom nothing remarkable occurred until the eleventh day, when his manner became abrupt, and he was first observed to be delirious and tremulous. His pulse became feeble and dicrotous, and death appeared imminent on the twentieth day of his illness, when the state of prostration and muscular subsultus, with constant low muttering delirium, made the case resemble typhus rather than rheumatism. Treatment was now begun with conium-juice and bromide of potassium internally in large and frequently repeated doses, while an ice-bag was applied to the vertex of the head and the nape of the neck. Nourishment was throughout given freely, and stimulants to the extent of four ounces of brandy per twenty-four hours. Some improvement was shortly noticed. The patient became less delirious and tremulous, but was still sleepless. Thirty grains of chloral produced four hours' sleep, and from this date—the twenty-second of his illness—he was no longer delirious. There was some re-establishment of the rheumatic pains, with extreme prostration, and another slighter relapse on the twenty-seventh day. But the patient made a good recovery. Dr. Southey offered no further remarks on this case that were interpolated in its narration.

ACUTE RHEUMATISM WITHOUT RECENT CARDIAC COMPLICATION OR HYPERPYREXIA—ALBUMINURIA—DEATH ON THE NINTH DAY.

This was a third attack of rheumatism in the same individual, who was admitted to have had previous heart-disease. An old mitral murmur existed. The highest temperature observed was 102.2° on the evening of her admission, upon the fifth day of her disease. There was no albumen in her water when she was admitted. On the seventh day a trace only of albumen was perceived. On the eighth day all the rheumatic pains had subsided, and she presented every likelihood of making a favourable recovery. Between the eighth and ninth days she secreted, however, only six ounces of urine, and this was highly albuminous. On the ninth day her lips became livid, and her face extremely pale; her pulse small, quick, and feeble. She perspired profusely, vomited two or three times, complained of sudden and intense epigastric pain, became unconscious, and died without any convulsion, twelve hours after the lividity of the lips was first observed. She had been treated for four days with chloral, chlorate of potash (of each, five grains), and camphor mixture, one ounce every six hours. This was stopped on the morning of the day upon which the first serious symptom manifested itself. The post-mortem examination showed no recent cardiac or pleural complication. The heart's cavities were distended with friable greenish-coloured blood-clots. The mitral valve presented old vegetations. The liver, kidneys, and spleen were soft and pale, the seats of general parenchymatous swelling, such as has been found associated with hyperpyrexia. The stomach and intestines contained some quantity of viscid, bilious-coloured, slimy mucus. Dr.

Southey preferred to leave this case also to tell its own tale. The heart's muscular structure had a brown, unhealthy look, and the striation of the individual fibres was indistinct, but there was nothing in it to suggest carditis. The appearance of the kidneys and the albuminuria were no more than is found incident to persons who have died of any acute disease. Why then did she die? He thought that the cause of death might be some rapid disorganisation of the blood, which rendered this inapt to circulate, and that its stasis in one situation or another would be found to be the explanation of the various cerebral and hyperpyrexial complications, which rendered acute rheumatism at times so fatal a malady.

Dr. THEODORE WILLIAMS wished an examination of the blood had been made.

Dr. MACLACHLAN was of opinion that hyperpyrexia did not in such cases cause death, but was concomitant with it. Some particular portion of the nervous centre being affected by the rheumatic poison, hyperpyrexia was induced, and death was hurried on under the action of the morbid agent. The signs recorded were those of carditis and pericarditis.

Dr. SOUTHEY said that no examination of the blood had been made. The fluid was very decomposed and clotted, and no analysis of it had been performed. Any change observed would, he thought, possess no elucidative value, nor could he attach any importance to the alteration of the corpuscles. Thickened patches, evidently of old standing, about the base of the heart, indicated the existence of pericarditis in life, and carditis followed very considerable change in the muscle, whereby it had lost its striæ.

CASE IN WHICH A MAN WAS STRUCK BY LIGHTNING.

Dr. G. WILKS (Ashford) contributed this case. On June 8 last, four men at work in Romney Marsh were compelled by the violence of the rain to seek shelter. Three of them retired into a lodge; the fourth (J. A.) remaining under a willow-tree by the window of the lodge to make water. Almost instantaneously, the building was enveloped in a blaze of lightning. The three occupants, having recovered from their terror, ran to seek their companion. They saw that the tree had been struck, that A.'s boots lay at the foot of the tree, and his clothes scattered in a line for several yards along the field, while he himself was stretched upon his back six feet away, stark naked, calling to them for aid. The man said that he felt himself violently struck across the chest and shoulders, hurled through the air, and dashed upon the ground, and is sure that he never lost consciousness. His clothes were all blown off him, except one sleeve of his flannel under-vest; the leather straps which fastened his trousers were rent like tinder, and his new, strong boots torn like paper, while his watch and chain were partly fused. Upon admission at the Ashford Cottage Hospital, the man was found to be burnt all over, more or less. His eyebrows and whiskers were gone. The burns on the back and chest were superficial, those on the abdomen and pubes more deep; down each leg ran a riband-like scar, three-inches broad, terminating at the left heel in a small roundish hole; at the right, in a large lacerated wound, through which the os calcis might be felt fractured into several pieces. There was also a compound comminuted fracture of the right tibia and fibula, which bones were protruding through the skin in the course of the riband-like burn. The deepest burns were about where the buckles of the waist-belt and garters, and the watch must have been; but from the knee to the heel on the right leg the whole thickness of the skin in the riband-like track was destroyed by the burning. The man was deaf, but singularly placid and cheerful, showing no signs of shock. He made an excellent recovery (though the burns about the fractures, and the sloughy state of heel, were complications of some moment), walking across the room ten weeks after the accident. He was now (October) earning his living, with a leg shortened from a half to three-quarters of an inch. The following facts were noted:—(1) That the course of the electrical action was from above downwards; (2) the clothes being very wet, their conductivity had been probably heightened; (3) where the flannel was next the skin the burns were more superficial; (4) where the cotton shirt and trousers touched him the burns were uniformly deeper; (5) wherever there had been a piece of metal (e.g., waist-belt, garter-buckles, watch, shoes), there had been an explosion, or at least a development of great heat; (6) the man was aware that he usually raised his right heel from

the ground during micturition, which may have caused the fierce explosion on that side; (7) the nervous system had an almost complete immunity from injury. This was attributed to the wet clothes being good conductors.

Sir JAMES PAGET said that, on seeing the clothes, he felt quite sure anyone would conceive it impossible that a flash of lightning could do what had been done in the case. He considered the explanation of the man's preservation from instant death, given by Dr. Wilks, the correct one—that is, due to the dampness of the clothes in contact with the body. The course taken by the lightning-flash was worthy of note. The irregularities in the direction of the rents were to be attributed to interference with the direct passage of the current by dry patches of clothing. This was particularly noticeable in the boots, one of which, at the time of the accident partially raised from the ground, was much more irregularly injured than the other. The watch exhibited proof of the same peculiarity. Sir James further added that in a tree close by the place where the man was standing there remained marks to show that the flash had pursued a path down the moist *liber* of the trunk. He considered the man had been excellently treated by Dr. Wilks.

Dr. BROADBENT suggested that the stripping of the body might be explained on the assumption that a body of steam had been rapidly formed, and that its explosive force had stripped the man.

Dr. ALTHAUS remembered reading of a similar case twenty-one years ago, recorded in the *Philosophical Transactions*. He attributed the effects produced by electricity to mechanical force merely of the discharge, which was very great. He could not but think it strange that the man exhibited no paralysis or affection of the nerve-centres. Possibly the man was a bad conductor of electricity.

Dr. HEWAN narrated the case of a dog, which, many years ago, on the West African coast, was lying beside its master, when it was (presumably) struck dead by a current of electricity which passed through the house by a central lamp-suspender. The animal was quite dead after the storm. It exhibited no external evidence, however, of such a death.

Mr. HULKE did not see anything to prove that the dog was killed by lightning at all.

(To be continued.)

THE ROYAL SANITARY COMMISSION, DUBLIN.—Mr. Robert O'Brien Furlong, barrister-at-law, has been appointed Secretary to this Commission, in succession to the late Mr. William Jerrold Dixon, whose sudden death we alluded to last week. During the sittings of the Commission Mr. Furlong was almost always present, and examined and cross-examined witnesses on behalf of the Dublin Sanitary Association, of which he has been an Honorary Secretary for several years. There can be no doubt that much of the success attending the holding of the Commission has been owing to Mr. Furlong's entirely voluntary and indefatigable exertions, and his appointment as Secretary to the Commission is of the best possible augury for the ultimate influence for good on the health of Dublin of the inquiry which has just taken place.

SUBPLEURAL ECCHYMOSES IN CHILDREN.—Prof. Parrot, treating of these ecchymoses from an anatomico-pathological point of view, as opposed to that entertained by medical legists who regard them simply as a sign of death by asphyxia, terminates a paper upon the subject (*Revue Mensuelle*, September), with the following conclusions:—1. Subpleural ecchymoses are very frequent, if not constant, in infants who die from acute pleuro-pulmonary affections complicating rubeola or diphtheria. 2. They are met with almost exclusively in subjects above a year old, and very exceptionally prior to the eighth month. 3. They differ from those which are described in treatises on medical jurisprudence by the constant co-existence of an acute and almost always inflammatory affection of the pleura or lung, and by their pathogeny, which is of a morbid nature, and not purely mechanical. 4. This lesion deserves the attention of medical legists, who otherwise might believe, on seeing ecchymoses beneath the pleura, that an infant had succumbed in a violent and rapid manner while in a state of normal health, when in reality death was the consequence of disease, the proof of which might be found on the attentive examination of the respiratory organs.

OBITUARY.

GEORGE WILLIAM CALLENDER, F.R.C.S. ENG., F.R.S. In the course of the last six months the profession has sustained some severe shocks by the lamentable and, for the most part, sudden deaths of several of its members who filled foremost positions in London. Murchison, Tilbury Fox, Maunder, Black, Leared, and now Callender, have all passed away from us; and this list makes serious gaps in the front ranks of our hospital staffs.

The news of Mr. Callender's death, which was flashed to London on Friday, the 24th inst., fell like a thunder-clap upon those of the staff and the great body of students who were at work at St. Bartholomew's at the time. The story that one of the surgical staff who had gone upon his holiday-outing, seemingly much in his usual health, had died suddenly on board a Cunard steamer in mid-Atlantic, on his way home, could barely be credited. Mr. Callender was due at the Hospital on the following day, and no one seemed aware that he had ever shown any signs of failing health. The sad news was, however, soon confirmed by the arrival of the *Gallia* at Liverpool, where Mr. Callender's remains were landed, and whence they were conveyed to London. It appears that Mr. Callender had not derived any benefit from his outward voyage, and he suffered from the autumnal heat in the States. Symptoms of tubular nephritis supervened, with great failure of strength. The best skill that could be procured was bestowed upon his case in Philadelphia, and many kind and generous friends ministered to his needs. With the greatest care, and at his own expressed wish, he was conveyed to New York, and placed on board the steamer to return home. He had been compelled to refuse many invitations from societies and other bodies in consequence of his illness.

After leaving New York the dropsical symptoms greatly increased, and, uræmia coming on, passed into coma. Death occurred on the 20th inst. Mr. J. De Vere Hill, the surgeon of the *Gallia*, who knew Mr. Callender, had charge of him, and left nothing undone that could be devised for his relief. Two of Mr. Callender's daughters were with him on this his last tour.

George William Callender was born on June 24, 1830, at Clifton, Gloucestershire. On the father's side he was descended from an old Scottish family, whose more immediate ancestors had settled in Barbadoes. He received his early education at "The Bishop's College," Bristol, one of the masters of which at that time is now the Bishop of Ely. His first years of medical study were passed under the immediate care of his uncle, Dr. Lancaster, of Clifton. At first he very much disliked the profession he had chosen, and was anxious to abandon it, but the death of his mother, in 1848, led to his persevering in it, as he wished to set a good example to his younger brothers, and to avoid doing anything that should give his father additional trouble.

Accordingly, in the following year (1849) he entered at St. Bartholomew's Hospital. While there he was a most diligent and distinguished pupil. He could work, and he could play: he was an active spirit in the cricket elevens; he was a distinguished prizeman, and in 1852 he was Scholar of his year. From that time he held many appointments in the Hospital and School. He was House-Surgeon under Mr. Stanley; then became Demonstrator of Anatomy. In 1855 he took his Fellowship at the College of Surgeons, and became Demonstrator of Morbid Anatomy. In this post he distinguished himself by his splendid and rapid manipulative skill.

For some time he lectured in summer on Comparative Anatomy, and joined Mr. Holden in the winter course of lectures on Anatomy. In 1861 he was elected Assistant-Surgeon to the Hospital. In 1866 he had a severe attack of typhoid fever, which lowered his health for some time. In 1870, on the retirement of Sir James Paget from the Senior Surgeoncy, Mr. Callender became full Surgeon. About this time he joined Mr. Savory in the course of lectures on Systematic Surgery. A few years later he was admitted to the Fellowship of the Royal Society, having presented previously a series of elaborate papers embodying original researches on the development of the facial bones.

In his wards and practice generally, Mr. Callender attracted attention by his great care and scrupulous devotion to minute details in his cases. Every sense was quickened, and all possible sources of mischief were anticipated and provided against.

He gave up the use of poultices latterly, having previously eulogised them in one of his contributions to the *Practitioner*; and he adopted the plan of cleansing wounds by means of a camel's-hair pencil, one of which was specially apportioned for the use of each patient, and kept scrupulously sweet. Various improvements in splints and apparatus he also devised.

By wise selection of cases, by careful preparation of each patient for operation by rest, and by accustoming him to wear such restraining instruments as would subsequently be necessary when operative measures were completed, by trusting nothing to chance, by seeing for himself, and by inspiring a spirit of religious cleanliness amongst all his subordinates, he reached a very high condition of success in practice, which was at once the result of, and a witness to, his prudence and sagacity. His method, though quite unlike that of Lister, was yet an antiseptic one. He employed carbolic acid dressings, but discarded the carbolic spray and other Listerian precautions which he considered unnecessary and burdensome. Foreigners and others came from afar to visit his wards, and fully recognised his method and its distinctness from Lister's. It was indeed described by the Senior Surgeon of the Hôtel-Dieu as "*pansement de Callender*." The essentials of his method were absolute cleanliness and persistent attention to details.

His papers and surgical contributions were very numerous. He published a little book on "Hernia." Several articles in "Holmes' System of Surgery" were from his pen. He added to our knowledge solid facts respecting the nature of phlebitis, and the changes occurring in thrombi. Several valuable essays in the *Hospital Reports* were written by him, and he was the first surgical editor of those volumes. Amongst these may be mentioned the papers on the "Anatomy of Brain-Shocks." To the *Transactions of the Clinical Society* he also contributed; and his clinical lectures always commanded attention when published. He was one of the first two Secretaries of the Clinical Society; and two years ago he was honoured by election to its Presidency.

Of commanding presence, scrupulously neat in person, he was possessed of much grace and dignity of manner. In his lectures he held perfect command of his class. He was most kind, affable, courteous, and pleasing. He was a polished man of the world in the best sense, and was far more than a mere excellent surgeon. He could throw off all the cares of his profession, and hold his own in any society. He cultivated a taste for some of the fine arts, and filled the position of host and entertainer with consummate tact and geniality. And thus he came to hold many honourable offices connected with the great school he was so fond of, and to command the entire confidence and affection of his many colleagues. His loss is undoubtedly great, and will be felt for long. Two years ago his wife pre-deceased him, and he now leaves five children.

His funeral took place on Wednesday afternoon at Norwood Cemetery, where his friend Murchison was laid in April last, and a large assembly flocked to his grave. Most of his colleagues were present, as also the surgeon of the *Gallia*, who had so tenderly soothed his last hours.

A HOSPITAL for the isolation of infectious diseases is about to be erected at Sittingbourne by the Sittingbourne Local Board, the Milton Union (sixteen parishes) Rural Sanitary Authority, and the Milton Improvement Commissioners, whose districts have been combined for carrying out the common object by a provisional order of the Local Government Board, sanctioned during the last session of Parliament, and which has just come into operation. The site for the building has been given by Mr. G. Smead, of Gore Court, Sittingbourne.

ESERINE IN GLAUCOMA.—Dr. Landesberg, in a communication to the *Philadelphia Med. Times* of August 16, states that having published some cases in which this medicine seemed to have proved efficacious, he feels it incumbent upon him to announce that subsequent experience has disappointed his expectations. He says that now he not only regards it as an unreliable and in most cases a worthless remedy, but also a very dangerous one, by lulling into a deceitful security, and thus endangering the chances of recovery by means of a more efficacious procedure. Especially is it dangerous in the hands of the patient himself, preventing him seeking advice until vision is irrevocably lost.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At the written examination, on the 24th inst., on Anatomy and Physiology, and Surgery and Pathology, the following were the questions, viz.:—1. Describe the curves of the spinal column. State generally how the vertebræ are articulated with each other. 2. State the composition of atmospheric air, and what changes are effected in it by respiration.—1. Describe the characters of (1) a spreading ulcer, and of (2) a healing ulcer. 2. What are the signs of fracture of a bone? What are the general indications requiring attention in the treatment of fractures?—The candidates were given from two to four o'clock to answer at least one of the questions in each department. The following were the questions in Dental Anatomy and Physiology, and Dental Surgery, viz.:—1. Describe microscopic specimens 1, 2, 3. 2. Give examples of birds having teeth, and describe them. 3. What are the processes by which the temporary teeth are removed and replaced by the permanent? Give the histological characters of the structures involved.—1. Describe, in the order of occurrence, the symptoms and results, local and general, arising from caries extending to the pulp in a third molar and permanent central incisor. 2. Mention the affections of the gums—whether arising from local or general causes—which it is desirable that the dental surgeon should recognise. Describe briefly their chief characteristics. 3. What are the mechanical injuries to which teeth are liable, the consequences arising from them, and the treatment to be adopted in each kind?—The candidates were allowed from five until eight o'clock to answer these questions, and were required to answer at least two out of the three questions in each department.

The following gentlemen having undergone the necessary examinations, were admitted Licentiates in Dentistry on the 24th inst., viz.—

Davis, Harry, Kew, student of the Middlesex Hospital.
Hammond, Gurnell Edward, Leinster-square, of the Middlesex Hospital.
Maggs, William Adolphus, Yeovil, Somerset, of the Middlesex Hospital.
Magor, John Bernard, Penzance, of the Middlesex Hospital.
Isard, William Alexander, Buenos Ayres, of the Charing-cross Hospital.

Three candidates failed to acquit themselves to the satisfaction of the Board.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 23:—

Henslow, Frederick Wakefield Doyle, Wermingay, Lynn, Norfolk.
Sheppard, Charles Edward, Addison-gardens, South Kensington.
Smith, Robert Percy, Abbey Farm, Belvedere, Kent.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Newnham, Ernest Edmund, Charing-cross Hospital.
Walker, William Frederick, Charing-cross Hospital.

APPOINTMENTS.

* * * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

EDGE, A. M., M.D. Queen's Univ. Ire., M.R.C.P. Lond.—Honorary Physician to the Manchester Southern Hospital for Diseases of Women and Children.

ROSS, JAMES, M.D. Aberd., M.R.C.P. Lond.—Honorary Physician to the Manchester Southern Hospital for Diseases of Women and Children.

SCOTT, JOHN, M.A., M.B. Aberd.—Honorary Physician to the Manchester Southern Hospital for Diseases of Women and Children.

BIRTHS.

BATTERBURY.—On October 25, at Wimborne Minster, Dorset, the wife of George Henry Batterbury, M.D. Lond., of a daughter.

HAWARD.—On October 25, at 33, Marina, St. Leonards-on-Sea, the wife of F. R. Haward, M.R.C.S. Eng., prematurely of a son.

LYNCH.—On October 26, at 8, Boyne-terrace, W., the wife of J. Roche Lynch, L.R.C.P. Lond., of a daughter.

MILLER.—On October 22, at The Close, Basingstoke, the wife of F. D. Miller, Esq., L.R.C.P., of a daughter.

NOAD.—On October 23, at Chesham Lodge, Lower Norwood, the wife of Henry Carden Noad, L.R.C.P., of a son.

SUTCLIFF.—On October 21, at Great Torrington, North Devon, the wife of Edward Sutcliff, M.D., of a son, stillborn.

MARRIAGES.

BAKER—NOBLE.—On October 28, at York, E. L. Baker, M.B., of Gomersal, to Mary Amelia, eldest daughter of T. S. Noble, Esq., solicitor, of York.

LAW—PRICE.—On October 22, at Eastbourne, William Thomas Law, M.D., Resident Medical Officer at the Brompton Hospital for Consumption, to Georgiana Charlotte Elizabeth, second daughter of Edwin Plumber Price, Q.C., Recorder of York and Judge of County Courts for West Norfolk.

MCDONALD—RATCLIFF.—On October 22, at Grazeley, George Bruce McDonald, M.D., of Southall, Middlesex, to Eliza Fanny, daughter of James John Ratcliff, of The Priory, Beech-hill, near Reading.

PALMER—MATTHAMS.—On October 23, at Great Waltham, Harold Lewis Palmer, M.R.C.S. Eng., L.S.A., to Susannah Matthams, youngest daughter of George Matthams.

SMITH—COUTTS.—On October 22, at St. George's-in-the-East, Albert Edmund Smith, of Stamford-hill, to Josephine Elizabeth, youngest daughter of the late James Coutts, Esq., M.D., A.M., of Aberdeen.

DEATHS.

CALLENDER, GEORGE WILLIAM, F.R.S., of 7, Queen Anne-street, on board of the *Gallia* (ss.), on October 20, aged 49.

DOMVILLE, WILLIAM THOMAS, C.B., M.D., Inspector-General of Royal Naval Hospitals and Fleets, and Honorary Surgeon to the Queen, at the R.N. Hospital, Haslar, on October 21.

GOODDAY, HORATIO, M.D., at Werter-road, Putney, on October 19, aged 72.

KIMBELL, LOUISA, only child of Jonathan Henry Kimbell, J.P., F.R.C.S., at the Manor House, Knowle, Warwickshire, on October 26, aged 30.

MASSINGHAM, JOSEPH EBENEZER, M.R.C.S., L.S.A., of Green-street, Victoria-park, E., on October 26, aged 64.

O'CONNOR, JANE, wife of Bernard O'Connor, M.D., at Welshpool, on October 23.

PERRIN, ALFRED CHARLES, M.R.C.S.E., L.S.A., at the Deanery School-house, Southampton, on October 24, aged 27.

RILEY, HENRY, M.R.C.S., late of Clyde-terrace, Stockwell, on October 20, aged 70.

ROGERS, JOHN HENRY, F.R.C.P., F.R.C.S., at Sackville College, East Grinstead, on October 18, aged 68.

RUSSELL, WILLIAM COOK, F.R.C.S., at Doncaster, on October 24, aged 69.

SANDWELL, MARY JANE, wife of Edward Sandwell, L.R.C.P., M.R.C.S., at 10, Charles-street, Soho, W., on October 23, aged 37.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

EVELINA HOSPITAL, SOUTHWARK-BRIDGE-ROAD, S.E.—Physician to Out-Patients. Candidates must be Fellows or Members of the Royal College of Physicians, or must undertake to become such within six months. Applicants are requested to send in their applications, with testimonials, to the Committee of Management, on or before November 6.

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N.—House-Surgeon. Candidates must be Members of the Royal College of Surgeons. Applications, with copies of testimonials, to be sent to the Secretary, on or before November 5.

HOSPITAL FOR WOMEN, SOHO-SQUARE, W.—Assistant-Physician. Candidates must be graduates in medicine of some recognised University, and Members of the Royal College of Physicians, London, or must become so within twelve months of their appointment. Applications to Mr. David Cannon, Secretary, on or before November 12.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Assistant-Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England. Applications, with testimonials, to be sent to James S. Blyth, Esq., Secretary, on or before November 26.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD, E.C.—House-Physician. The office is tenable for one year, and an allowance of £80 is made in lieu of board. All other information may be had on application to Mr. C. Lowther Kemp, Secretary.

RUGELEY DISTRICT HOSPITAL.—Matron. Applications, with full particulars and testimonials, to the Secretary, Mr. Manners, 7, Horse-fair, Rugeley, on or before November 4.

ST. MARYLEBONE GENERAL DISPENSARY, 77, WELBECK-STREET, CAVENDISH-SQUARE.—Honorary Physician. Candidates must be graduates in medicine of one of the Universities in the United Kingdom, and not engaged in the practice of midwifery or pharmacy. Applicants are invited to attend personally, with written applications and testimonials, at the Dispensary, on Wednesday, November 5, at five p.m.

WARWICK COUNTY LUNATIC ASYLUM.—Junior Assistant Medical Officer. Applicants to be qualified in Medicine and Surgery. Applications, with testimonials, to Dr. Parsey, at the Asylum, Hatton, Warwick.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Leeds Union.—Mr. Robbins, Assistant Medical Officer at the Workhouse, has resigned; salary £100 per annum.

St. Mary, Lambeth, Parish.—Mr. W. E. Farnfield has resigned the Tenth District; area 638 acres; population 28,500; salary £60 per annum.

Titchhurst Union.—The Bodiam District is vacant; area 1582; population 303; salary £10 per annum.

APPOINTMENTS.

Bury Union.—Thomas Mellor, M.R.C.S. Eng., L.S.A., to the First Tottington District.

Halstead Union.—Robert G. Kellett, L.K. & Q.C.P.I., L.R.C.S.I., to the Second Division of the First District.

Selby Union.—Robert Hamilton, M.B., C.M. Glasg., to the Cawood and Riccall Districts.

H.R.H. THE DUCHESS OF CONNAUGHT having become a patroness of the Samaritan Free Hospital for Women and Children, has evinced her interest by sending a donation of £25 in aid of the funds.

THE remains of the late Inspector-General of Hospitals and Fleets, Dr. W. D. Domville, were interred in Haslar Cemetery last week, with full naval honours. The proceedings were superintended by Captain Culme Seymour, the Flag-Captain of the Commander-in-Chief, the funeral arrangements being similar to those laid down by regulation for the interment of rear-admirals and major-generals, with whom the deceased ranked. The coffin, which was literally covered with flowers, was drawn on a gun-carriage, the pallbearers being Surgeon-General Best (Army Medical Department), Captain Herbert, R.N., Captain Willis, R.N., Colonel Gwyn, Deputy Inspector Reed, and Staff-Surgeon Turnbull. The *cortège*, which was unusually long, comprised the bands of the Royal Marine Artillery and Royal Marines, a firing party of 500 marines, 500 seamen and boys detailed from the harbour squadron, patients from Haslar Hospital, Greenwich pensioners, hospital officers, nurses, and labourers, and a vast number of naval and military officers, including Admiral Fanshawe (Commander-in-Chief) and Prince Edward of Saxe Weimar, representing all ranks of the two services. The Admiralty was represented by Sir Alexander Armstrong, Director-General of the Medical Department of the Navy.

SCIENTIFIC GRANTS.—The following is a list of grants in aid of scientific investigation which have been made by the British Medical Association:—Dr. Ogston—For the research into the Relation between Bacteria and Surgical Diseases; £50. Mr. W. North—To discover what, if any, relation exists between the Nitrogenous Egesta and Muscular Work; £50. Dr. Ewart—To continue his research into the Life-History and Pathological Relations of Specific Organisms already known, and for the discovery of other similar organisms and the channels through which they enter the system; £10. Dr. Crocker—To continue his research on the Physiological Action of Alcohol, with especial reference to its mode of elimination; £24 5s. Dr. Thin—To continue his research into the Nature and Development of Conditions of Life of the Vegetable and Animal Parasites that infest the Human Skin; £5. Mr. Chiene—To continue his research on the subjects—(1) Are there present in Organs of Living Animals Particles which originate the Bacteria met with after Death? (2) Do the Discharges from Wounds which are antiseptically treated contain Organisms? £15. Dr. Barlow—To continue an experimental Investigation into the Changes produced in the Blood-vessels by Alcohol; £8. Dr. Ferrier and Dr. Gerald Yeo—Researches with the view of testing the Application of Antiseptic Surgery in Cases of Lesion of the Skull, Brain, and its Membranes; £50. Dr. Newman—Research on the Functions of the Kidney and on the Physical Conditions which regulate the flow of Urine; £10. Mr. Malcolm Morris—An Investigation into the Anatomical Characters of certain Diseases of the Skin allied to Tubercular, Scrofulous, Typhoid, and Syphilitic Affections; £10. Dr. McKendrick—Investigation on Anæsthetics; £50.

NOVEL TREATMENT OF CHLOROFORM ASPHYXIA.—Dr. Spörer relates in the *St. Petersburg Med. Woch.*, August 9, the case of a boy eleven years of age, in whose ear a pea had become embedded. After numerous trials to remove it, from thirty to thirty-five drops of chloroform were inhaled from a handkerchief in order to relieve the great pain which these trials caused, and the body was then easily removed. But scarcely had the inhalation ceased than the boy's pulse entirely failed, and he gave every sign of approaching death. Efforts of restoration of the usual kind were tried in vain for more than twenty minutes. His head and the upper part of the body were then thrust out of the window to try the effect of the cool September air; but as no effect was produced, one of the assistants seized hold of the boy by the legs and hung him out of the window with his head downwards, swinging him to and fro like a pendulum. After four or five minutes of this procedure the boy's death-like face became reddened, and to the joy of all present he uttered a cry. The respiration and circulation were restored after more than half an hour's arrest. Dr. Spörer does not believe the recovery was due to the mere exposure to the air, but rather to the inverted position of the body inducing a passive congestion of the anæmic brain, and thus giving an impulse to the action of the heart.

ABSORPTION OF QUININE IN THE STOMACH.—A weak tartaric acid lemonade, taken after quinine, is said to hasten absorption. It relieves gastric irritability.—*New York Med. Record*, September 27.

PROFESSOR KLEBS.—The gratifying communication has been made to us on the highest authority (says the *Allg. Wien. Med. Zeit.* for October 7) that it has been determined by an understanding between the Ministers of Education and the Interior to establish for Prof. Klebs, in the General Hospital at Prague, a division for infectious diseases. Whoever is acquainted with the services of this observer to pathological anatomy, and especially to mycology, will welcome this determination of the Ministers with the greatest satisfaction. This unwearied investigator will now have the opportunity of utilising at the bedside his maxims of antimycotic therapeutics, and of throwing light on many points not yet accepted of the doctrine of the generation of disease by different vegetable and animal organisms, and of the mode in which this is brought about.

A LIVING FILARIA IN THE EYE OF A HORSE.—Dr. Turnbull exhibited at the Philadelphia Medical Society (*Med. Times*, September 13) a horse, twelve years old, which, after being turned out to grass about a year and a half ago, was found to have a worm in its eye, about two inches in length. Since then it has continued to grow, and now looks like a piece of catgut four or five inches long. The cornea was at first clear, but is now cloudy, and the filaria, seen through it by the naked eye, is constantly twisting and wriggling in the anterior chamber, coiling up at night when the eye is closed and at rest, and being in active motion only in the day or when the eye is opened to the light. The horse is quite well and in good condition, and does not seem to suffer from the slight irritation which is present. The iris, pupil, and lens are all in normal condition, and the horse can see when the other eye is covered.

WOMEN MEDICAL STUDENTS AT ZÜRICH.—Professor Edmund Rose, of Zürich, writing to the *Boston Medical Journal* (September 25) in answer to inquiries about women students, states that the disappearance of the Russian women medical students (about eighty in number) has given great satisfaction to the University. "At first," he says, "only very earnest and industrious ladies entered, but later many coquettish and hysterical ones, who have caused a strong prejudice against the whole question. At present the female students, and especially Miss Smith of America, are again much more earnest and industrious in their studies—quite as much so as are the male students. After all that has happened, they are allowed to continue here, and, as expected after twelve years' trial, they do not cause any great excitement. . . . The number of students of the University here has grown very large, because every foreigner formerly was admitted without any examination. The fact that, for instance, several mistresses of German noblemen tried to be admitted, induced the Government, in accordance with a proposition made by the Senate, to pass an order making a *testimonium morum* requisite for admission of a lady student, and also the proof of a certain standard of education. We are now, therefore, able to prevent similar occurrences. There have been no disturbances between male and female students, but two or three marriages."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Etching.—The unfortunate artist was a son of Dr. Meryan. We cannot answer the remainder of your letter.

Justitia.—We suspect not. But probably the Inland Revenue will have something to say to him for making use of a coat of arms, provided he has not obtained a licence.

The Yellow Fever, Memphis.—The Memphis Board of Health notify that frosty weather having now set in, the yellow fever epidemic is ended. Quarantine is therefore raised, and few cases now are reported.

Mr. Wilson.—You can obtain photographs of the late Mr. Callender and of Dr. Leared from Messrs. Barraud, of 96, Gloucester-place, W. Their portrait of Mr. Holden, the President of the College of Surgeons, is also very good.

The Vegetarians.—The Vegetarian Society held their annual conference at Manchester last week. Professor Newman presided; and representatives were present from the Vegetarian Societies of Glasgow, Leicester, Chester, Bristol, and Liverpool. The past year appears to have been one of the most flourishing in the history of the Society. The receipts were over £800, being £250 more than those of the previous year.

Dr. Campbell.—You can obtain the preliminary examination questions of the Royal College of Surgeons at Messrs. Hodgson and Sons', Gough-square, Fleet-street, E.C., by sending them seven stamps. For the Students' Number of this journal send the same number of stamps to Messrs. J. and A. Churchill, 11, New Burlington-street, W.

Anthropology.—Dr. Broca has presented to the Anthropological Society, Paris, two heads of Canaques, preserved in spirits of wine, and forwarded by a navy surgeon: one is that of Altai, the insurgent chief, and shows great intelligence and energy; the other is that of a medicine-man.

Sanitation, America.—In a discussion which followed an address given in the Sanitary Department of the recent meeting held at Saratoga of the American Social Science Association, on the "Sewerage of Villages and Cities," Professor Acland, of Oxford (England), was invited to speak, and made an eloquent address, in which he described sanitary methods in England, and expressed his satisfaction at the progress which the people of the United States were making in sanitary science. He said that America had an excellent opportunity to profit by the blunder of England in the matter.

Pauper Medical Relief, Isle of Man.—Last year a Commission was appointed by the Governor of the Isle of Man, to consider the question of the medical relief of the poor, and the desirability of instituting a poor-law. No poor-law exists in the island at present, and paupers are maintained by voluntary efforts, the relief being generally carried on by the vicar and wardens of the respective parishes, assisted in the towns by associations, for the distribution of charitable relief. The Commission have now made their report. They are of opinion that the present system of voluntary relief is quite adequate for all purposes, and is the best in theory.

A Coroner and his Jury: a Difference of Opinion.—At Leeds, in a case of hydrophobia which recently occurred there, a conflict of opinion arose between the coroner and the jury at the inquest on the deceased. The owner of the dog, who was censured for the unsatisfactory way in which he gave his evidence, said he destroyed the animal. The coroner in his charge observed that it could not be too widely known that in these cases the dog ought not to be destroyed, but securely confined, so that medical men might have a chance of studying its symptoms, and discovering if, as a matter of fact, the dog really was suffering from this terrible disease; but the jury held to the ordinary opinion that the dog ought to be immediately destroyed.

Trundling Hoops in the Streets.—On Thursday week four inquests were held in London and the suburbs, on persons who were "run over and killed." One of these cases deserves notice, as it demonstrates the existence of a danger which should, by better police regulations, be peremptorily stopped. The deceased, a little boy, was trundling his hoop along; it left the pavement, and ran into the carriage-way. A hansom-cab was at the moment approaching, but the boy, heedless of the danger and eager to recover his hoop, endeavoured to get at it, when he was knocked down by the horse, and run over, and sustained injuries which resulted in death from lockjaw. The driver was, it appears, free from blame, and the verdict of the jury was "Accidental death"; they at the same time stating that the attention of the police authorities should be drawn to the frequency of accidents of this character.

CARSON'S METHOD OF KILLING ANIMALS FOR FOOD.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—A good many years ago, Dr. Carson, of Liverpool, took out a patent for a particular method of killing animals for food. This method, I believe, consisted of the simultaneous pumping of air into both pleural cavities so as to compress both lungs and heart, and put a summary stop to the processes of respiration and circulation. The advantages claimed for this method were—that it was a painless and humane mode of slaughtering; but especially that there was no loss of blood; and thirdly, that the blood distributed over the body remained *in situ* as it was during life. The pleura was distended with air, and therefore the lungs could not exercise the suction that they generally do so as to draw the blood from the smaller vessels into the right auricle and large veins of the chest. When Dr. Carson's patent became extinct by lapse of time, an effort was made to renew it on the ground of its utility. To this end appeal was made to several London physicians and scientific men, now at least twenty years ago. I recollect dining with Dr. L. in Savile-row, well known for his proficiency in natural science. The dinner was a good one, and the chief dish was an excellent haunch of mutton. When this had been removed our host told us that this haunch had been killed in Liverpool by the Carson method, and had been sent to him in order that the opinion of London *savans* might be taken upon it. We all agreed that the mutton was tender, dark-coloured, and very well flavoured; and our suffrages went in favour of the system, which claims humanity to the victim, and improved quality and quantity of food to the consumer, as its peculiar merits. Probably these particulars will interest your correspondents, Dr. Prater and Mr. Law Hussey. I am, &c., DELTA.

COMMUNICATIONS have been received from—

Dr. W. R. GOWERS, London; Dr. H. W. ACLAND, Oxford; Mr. FRANCIS FAWKE, London; THE REGISTRAR OF APOTHECARIES' HALL, London; Mr. G. H. CABLE, Greenwich; Mr. W. K. JOHNSON, London; Dr. CLEMENT GODSON, London; Dr. SANSOM, London; Mr. E. C. KEEVEL, London; Mr. S. J. HUTCHINSON, London; THE HONORARY SECRETARY OF THE EPIDEMIOLOGICAL SOCIETY; Mr. BALMANNO SQUIRE, London; Dr. MATTHEWS DUNCAN, London; Mr. THOMAS SMITH, London; THE MANAGER OF THE PRESS AND LITERARY AGENCY, Chelmsford; Mr. JOHN HARTLEY, Addiscombe, Surrey; Dr. E. I. SPARKS, Mentone; Dr. JOHN WILLIAMS, London; Dr. STEPHEN MACKENZIE, London; Dr. GEO. GRANVILLE BANTOCK, London; THE SECRETARY OF THE SAMARITAN FREE HOSPITAL, London; Mr. F. W. WRIGHT; THE SECRETARY OF

THE ROYAL INSTITUTION; THE REGISTRAR-GENERAL, Edinburgh; Dr. DRUITT, London; Mr. E. M. ADAMS, London; Mr. ROBERT LAUBAM, London; Dr. BAINES, London; THE HONORARY SECRETARY OF THE LONDON SCHOOL OF MEDICINE FOR WOMEN, London; THE DEAN OF THE FACULTY, Anderson's College; Mr. EASSIE, London; Dr. F. DE HAVILLAND HALL, London; Mr. JOHN CHATTO, London; Mr. T. M. STONE, London.

BOOKS AND PAMPHLETS RECEIVED—

On Phthisis, by William Thomson, F.R.C.S., F.L.S.—Report on the Sanitary Condition of the Urban District of Quickmere, by Mr. John Spear—Report on the Urban Sanitary District of Crompton (Lancashire), by Dr. Horace Swete—Report on the Yeaton Urban Sanitary District, by Mr. John Spear—St. Thomas's Hospital Reports, new series, vol. ix.—Vital Statistics of Infant Mortality, by Dr. T. B. Curtis—The Therm-antidote, by Dr. H. P. C. Wilson—Victoria, Report on the Hospital for the Insane for 1878—Treatment of Uterine Myoma by Abdominal Section, by Dr. Thomas Savage—Sanitary Fallacies, by Dr. W. H. Corfield—The Langham Printing Roller Co.'s Prospectus—Chaverston House Memorial List—Syllabus of Lectures on Physiology by Dr. Burdon Sanderson—Report on the Pathological Histology of Epizootic Pleuropneumonia, by Charles S. Roy, M.D.—The Age of Biology, by the President of the Faculty of Physicians and Surgeons of Glasgow.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Louisville Medical News—Nature—El Siglo Médico—Revue Médicale—Boston Medical and Surgical Journal—Boston Journal of Chemistry—American Bookseller—Anti-Vivisectionist—Index Medicus—New York Medical Journal—Detroit Lancet—New Preparations—Michigan Medical News—Guy's Hospital Gazette—Journal of Neurology—Scottish Banking and Insurance Magazine—Medical Inquirer—Washington National Board of Health Bulletin—Centralblatt für Gynäkologie—American Practitioner—Philadelphia Medical Times—American Traveller—Students' Journal and Hospital Gazette—Archives of Medicine—Manchester Examiner—American Journal of Medical Sciences—L'Union Médicale d'Orient—Leicester Daily Mercury—Die Rhinoskopie und Pharyngoskopie—The Vaccination Inquirer—Anti-Compulsory Vaccination.

APPOINTMENTS FOR THE WEEK.

November 1. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

3. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.
MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. Drysdale, "On the Mortality of the Rich and Poor." Mr. Rose, "On the Treatment of Fractured Patellæ by Drilling Fragments and Wiring them together." Mr. H. A. Reeves, "On the Treatment of some Affections of the Urethra and Bladder in the Female."
ODONTOLOGICAL SOCIETY, 8 p.m. Communications from C. S. Tomes, F.R.S., and S. J. Hutchinson, etc.
ROYAL INSTITUTION, 5 p.m. General Monthly Meeting.

4. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.
PATHOLOGICAL SOCIETY, 8½ p.m. Dr. F. Taylor—Lymphadenoma. Dr. Greenhow—Rupture of Aortic Valve. Dr. Coupland—Primary Cancer of the Liver. Dr. Crocker—Specimens illustrating the Histology and Pathology of Morpheæ. Mr. F. Eve—Lymph-Sarcoma of Pericardium and Mediastinal Glands. Mr. John Wood (for Mr. De La Tour, of Christchurch)—Colotomy in a Sheep, performed by a Parrot. Dr. N. Moore—Calvaria from a Case of Congenital Syphilis. And other Specimens.

5. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.
EPIDEMIOLOGICAL SOCIETY, 8 p.m. Inaugural Address of the Session, by the President, Sir Joseph Fayrer, K.C.S.I., M.D., F.R.S.
OBSTETRICAL SOCIETY, 8 p.m. Specimens: Mr. C. J. Cullingworth—Solid Tumours of Ovaries; Dr. Godson—Parts from Tubal Gestation. Papers: Mr. Lawson Tait, "On a New Method of Operation for Repair of the Female Perineum." Dr. Matthews Duncan, "On Expression of the Cord."

6. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.
HARVEIAN SOCIETY, 8½ p.m. Dr. Hughlings Jackson, "Intra-Cranial Syphilis." Dr. W. Squire, "On the Action of Salicine and Salicylic Acid in Rheumatism."

7. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 25, 1879.

BIRTHS.

Births of Boys, 1280; Girls, 1267; Total, 2547.
Average of 10 corresponding years 1869-78, 2332.1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	831	730	1561
Average of the ten years 1869-78 ...	721.7	680.1	1401.8
Average corrected to increased population ...	...	...	15.0
Deaths of people aged 80 and upwards ...	...	...	43

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West	561359	1	6	5	2	4	...	1	...	3
North	751729	1	3	15	2	9	...	7	1	10
Central	334369	1	5	11	2	2	...	2	...	4
East	639111	...	9	28	2	6	...	3	...	12
South	967692	2	7	20	2	13	4	7	1	6
Total	3254260	5	30	79	10	34	4	25	2	35

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29.612 in.
Mean temperature	49.4°
Highest point of thermometer	60.5°
Lowest point of thermometer	36.5°
Mean dew-point temperature	46.2°
General direction of wind	W.S.W.
Whole amount of rain in the week	0.48 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Oct. 25, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Oct. 25.		Deaths Registered during the week ending Oct. 25.		Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
			Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Weekly Mean of Mean Daily Values.	In Inches.	In centimetres.				
London	3620868	48.0	2547	1561	60.5	36.5	49.4	9.66	0.48	1.22		
Brighton	105608	44.9	52	44	58.0	39.0	49.6	9.78	0.49	1.24		
Portsmouth	131821	29.4	74	41	...	...	...	...	...	...
Norwich	85222	11.4	64	32	...	...	...	...	...	...
Plymouth	74293	53.3	39	31	58.9	41.8	53.3	11.84	0.71	1.80		
Bristol	209947	47.2	150	63	...	...	...	...	...	...
Wolverhampton	75100	22.1	54	21	59.7	38.1	48.2	9.00	0.64	1.63		
Birmingham	388884	46.3	288	151	...	...	...	...	...	...
Leicester	125622	39.3	113	45	61.8	35.8	48.5	9.17	0.31	0.79		
Nottingham	169396	17.0	128	72	62.9	31.5	48.4	9.11	0.26	0.66		
Liverpool	538338	103.3	391	272	59.2	39.1	49.1	9.50	0.63	1.73		
Manchester	361819	84.3	233	178	...	...	...	...	...	...
Salford	177849	34.4	138	83	...	...	...	...	...	...
Oldham	111318	23.9	87	53	...	...	...	...	...	...
Bradford	191046	26.5	136	65	59.1	40.0	48.8	9.34	0.35	0.89		
Leeds	311860	14.5	255	133	58.0	38.0	49.0	9.44	0.34	0.86		
Sheffield	297138	15.1	205	112	62.0	37.5	49.4	9.66	0.49	1.24		
Hull	146347	40.3	101	62	61.0	34.0	47.6	8.67	0.18	0.46		
Sunderland	114575	41.4	90	49	64.0	38.0	50.8	10.45	0.17	0.43		
Newcastle-on-Tyne	146948	27.4	109	60	...	...	...	...	...	...
Edinburgh	226075	53.9	122	82	57.8	34.0	47.0	8.33	0.35	0.89		
Glasgow	578158	95.8	340	203	59.3	37.3	49.6	9.78	1.40	3.56		
Dublin	314666	31.3	162	195	57.8	31.0	49.7	9.83	0.79	2.01		
Total of 23 Towns in United Kingdom	8502896	38.6	5878	3608	64.0	31.0	49.2	9.55	0.51	1.30		

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.61 in. The lowest reading was 29.21 in. on Monday morning, and the highest 29.88 in. on Thursday morning.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON RETENTION OF FÆCES.

By J. MATTHEWS DUNCAN, M.D., LL.D.,

Physician-Accoucheur and Lecturer on Midwifery at St. Bartholomew's Hospital.

INCONTINENCE of fæces, even when it is the result only of physical disability, as in a case where a woman has got the perinæum and sphincter ani torn through in labour, is a disease of importance not only because the fæces pass involuntarily, but because also this imperfection leads in a peculiar way to depravation of the general health.

There are many kinds of retention of fæces, to which I shall not allude to-day, such as are produced by intussusception, by enteritis paralysing the bowel, by strangulation. In these cases, as you know, there is not only retention of fæces, but often also regurgitation of fæces, or reflux. The fæces in all of these diseases frequently come to be ejected by the mouth, implying a very long course of reflux. This reflux of fæces so as to come to be ejected by the mouth is not a characteristic phenomenon (far from it) of the kinds of retention of fæces that I propose to consider to-day, and which have been illustrated, almost all of them, in "Martha" recently.

Constipation is essentially slow progress of the fæculent mass from the cæcum on to the anus. Constipation, with slow progress, does not imply gradual and ever-increasing accumulation. Accumulation of fæces, of which I will give you a good example to-day, does imply retention, of course, but there are many cases of retention of fæces without accumulation. When you have constipation with ever-increasing accumulation of fæces, the fæces, as you all know, get hard and dry. In many of these cases a natural cure comes every few days, or every few weeks, in the form of an attack of diarrhoea, and the patient tells you that her bowels are always either very constipated or very loose—implying by looseness rather frequency of motions than thinness or liquidity of the stools. How long the fæces take to pass is a subject that I do not intend to enter upon to-day; but when they pass too slowly and accumulate, they may lie in any part of the great gut. The most frequent seat of accumulation is the rectum and sigmoid flexure; but you have cases of enormous accumulation taking place when the sigmoid flexure and the rectum are emptied by cathartics or by enemata. In some rare cases of this kind, where, when the case comes to a happy termination, a potful of fæces is evacuated, you may, before the evacuation, feel the accumulation, as I have already said, in any part of the course of the colon. I have seen enormous masses of this kind, which were for a time suspected to be malignant masses, in the right flank; and the worst case I have ever seen presented the accumulation in the epigastric region; that is to say, before the crisis came of the evacuation of the bowel, an immense accumulation of fæces could be felt, forming a hard tumour in the region of the stomach. I shall now read to you a case illustrating a common form of accumulation which implies retention of fæces. It is a good example, but far worse cases are on record, and I have seen many worse cases. Indeed, cases are recorded—though I do not ask you to believe them implicitly—where a woman only defæcated four times a year, every three months. The case which I am about to read is in "Martha," on account of phlegmasia dolens of a peculiar kind. On palpating her belly we could perceive—and this a well-educated hand can do in a great many instances—a peculiar pultaceous fulness of the abdomen, without resonance, or with very limited resonance. This condition led us to inquire into the state of this woman's bowels, and I will read you the particulars in this respect of her case:—

"L. B., aged thirty-three; married for nine years; seven children; no miscarriage. Last child born six weeks ago in an easy labour; has never been well since, and phlegmasia dolens of left leg began about a fortnight after delivery. Now her symptoms indicate the probable existence of abscess in the thigh, but locally no sign of it can be discovered in the swollen limb. During the first fortnight after confinement the bowels were opened once or twice,

and for four weeks previous to admission they were not opened at all. Abdomen presents little tumefaction; no tympanites, but some resonance everywhere; has a doughy, pultaceous feeling. Castor oil and turpentine were administered four nights in succession, producing three or four large evacuations (not diarrhoea-like) daily. The first three evacuations were very large and hard, the rest more nearly liquid. The abdomen has become softer and more resonant on percussion, and the woman feels better. The leg remains much swollen from hip to foot."

That is an example of a very common disease—constipation with accumulation of retained fæces.

I come now to mention a kind of retention which is the very opposite of this: retention in the rectum of little bits of fæces. These little bits may not be scybala. Sometimes they are very black and apparently peculiarly irritating; but this is not necessarily a quality of these retained little bits. The rectum, on examination, in cases of this kind, is found not to be a tube of moderate and nearly uniform dimensions, but a semi-paralysed tube, dilated and pouched. In this kind of rectum the bearing-down pressure does not evacuate the bowel completely, and little bits are left which may give rise to intense irritation. In many women this irritation is not a result of the retention. A case of this irritation I saw a few days ago. This lady came to me in Edinburgh twice, years ago, with the same affection, and, seeing her again on another matter, I asked her how the rectum trouble was, and she told me that the diseased condition, which I am about to describe, remained exactly as before. Now, this woman, after the evacuation of the bowels, which she effects by an aloetic purgative, has to use, and always does use, an enema to wash out the pouched semi-paralysed bowel. If she does not use an enema, or if the enema does not succeed, she has irritation, far worse than tickling, which she cannot forget, and which prevents her from sleeping. I have said, "if the enema does not succeed"; and in her it generally does not succeed, and then she always has to put in her finger and get hold of the very little bit or bits, and pull it or them out. Until she does that she can get no rest. This condition, although not alarming or dangerous to life, is extremely important on account of the annoyance it causes.

A semi-paralysed pouched rectum is in potential dimensions equal to the whole pelvis. It is necessarily an inactive rectum, and the fæces are often accumulated in such a rectum, and very difficult to get out of it. In such cases it frequently happens that no kind of purgative is efficient, and the bowel must be washed out by an enema. This washing out by an enema consists chiefly in dissolving the fæces and in filling the rectum with a fluid which carries away the fæces in its gush through the anus when the woman goes to stool. This enema does not produce contraction of the rectum, but it acts in the mechanical way I have described to you. In cases of this kind sometimes the enema does not succeed, and I have known several women—generally women exhausted by excessive child-bearing, who had long suffered from this condition—who had to dig out with their fingers the fæces from the rectum: not a little bit left, which irritated the rectum, but the mass of fæces, the whole stool.

There is a kind of this pouching which is peculiar to women, and which requires a special description—that occurs in women who have vaginal rectocele. Now, this limited pouching, in cases of vaginal rectocele, is often a cause of extreme annoyance to a woman. The fæcal mass is projected into the pouch of the vaginal rectocele. It does not make the turn downwards as it ought to do, in order to emerge at the anus, but passes forwards, and with the rectocele pushes through the os vaginæ. If a woman has no disease but this vaginal rectocele she can be guided how to assist herself. Many women find out soon enough how to assist themselves. When the act of defæcation is going on they press firmly against the orifice of the vagina, and push back this pouch so as to restore the proper shape to the rectum, and then the fæces are evacuated naturally in other respects.

Retention of fæces is sometimes caused by congenital smallness of the anus. The only congenital case of this kind in an adult that I have seen presented a valve-like obstruction about an inch within the external orifice of the anus. The woman had borne children, and how this, which was evidently congenital, had only at a late period of life come to be a formidable obstruction to the passage of fæces, causing retention, it is difficult to explain. I mentioned

to you in a former lecture similar remarkable delays of the evil results of congenital urinary obstruction, and I have not time now to enter on the subject further.

The most common cause of retention from smallness of the anus is a too thorough or an unfortunate operation for piles. Cases of this kind are not very rare where the anus gets too much closed, generally by the contraction of the cicatrix, so that the woman cannot effectually defæcate. In some cases the evil is temporary, and arises from spasm of the sphincter. In either of these cases you may have obstruction of fæces and all the evil results that I shall presently describe to you.

Now I come to another kind of retention which introduces me to the word scybalum. A scybalum is a rounded or oval mass of fæces, of larger or smaller dimensions, the size of a hazel-nut or of a hen's egg, or even larger, which has been long retained, become partly decolorised, hardened (especially on its surface), and which is sometimes encrusted with salts of lime, producing a rough shell somewhat resembling that of a hen's egg. Such scybala may be found in any part of the great gut. They are not always the cause of retention of fæces. The further up the gut they occur, the more likely they are to meet with fæces which are fluid enough to pass easily by the side of the scybalum, and then they do little harm. A case occurred in my practice, not long ago, of a woman dying slowly from malignant disease of the peritoneum. She was examined by myself and several physicians, who correctly diagnosed the disease, but incorrectly diagnosed two egg-like tumours which were for many months felt in the belly floating in the ascitic fluid which was one of the indications of her disease. These were supposed to be malignant masses. After death they were found to be scybala in the transverse colon, which were causing no irritation, and apparently giving the woman no trouble. The mistake, you see, was one of very little importance, but it is well to call attention to it, because under other circumstances the mistake might have been of the greatest importance. If we had founded on these scybala as evidences of malignant disease, we should have been misled; but we did not. We thought these were merely part of a disease which we diagnosed upon other grounds.

When a scybalum is low down, especially if it is in the rectum, the fæces are very likely to be obstructed and retained. In this case you not only have retention of a scybalum, but you have retention by a scybalum. Then the woman's only chance of having her bowels evacuated, if the scybalum persists, is in the motion being fluid and passing by the side of the scybalum. A scybalum in the rectum, obstructing the fæces in this way, is often called a scybalum acting like a ball-valve; but that is an example of *lucus a non lucendo*, for it is not acting as a ball-valve. That is why it is called a ball-valve obstruction sometimes—because it does not obstruct! the fluid fæces do get past it. Solid fæces are undoubtedly often obstructed by it; but it is only when the fæces are nearly solid that it produces ulterior consequences. It may permit passage of fluid fæces copiously, and yet be causing retention of the nearly solid fæces.

It is in this retention of fæces by a rectal scybalum that you have the best example of the disease that we are considering to-day. A woman having any form of retention of fæces may be truly described, in many cases, as being constantly purged; and in this way the practitioner is put off his guard. A woman having the greatest and most dangerous retention of fæces may be incessantly defæcating, and even in very fair quantity, and even nearly solid fæces, as one of my cases for this day demonstrates. You can see very strong analogy between this and the retention of urine in the bladder, which I was speaking of in my last lecture. In that disease a woman may pass urine frequently, and in large quantities; and yet there is retention. So it may be in the case of retention of fæces. In a case of retention of fæces by a scybalum in the rectum, the accumulation of fæces takes place first in the rectum, and it produces at last a tumour, which can be felt gradually forming in the left iliac region. This tumour presents generally little or even no resonance, is densely hard; and I have seen it repeatedly taken for malignant disease. I will describe to you the features of a case of this kind from the last example of it which came under my own observation. I was asked to go to the country, as a mere form, to see a lady who was dying from malignant disease of her rectum. She was described as being so far advanced in the disease that the malignant tumour could be felt in the left iliac region. Her torments with pain and tenesmus

were agonising. She was never off the chamber-pot, and she was incessantly passing thin yellow fæces. This was simply a case of accumulated fæces by a scybalum in the rectum. With my fingers I dug out of her a very large potful of decooured fæces of a disgusting odour—not the ordinary fæculent odour; and the tumour disappeared and the woman was cured. Now, you can easily understand how natural it was to fall into the mistake that I have described; and a case, which I shall presently read to you, will further impress on you the danger of judging that there is no retention because a woman is defæcating, even frequently. This has a very important practical bearing not only on the diagnosis and treatment generally, but it has a very important practical bearing on the question of colotomy. You are not to suppose that colotomy is necessarily excluded from consideration because the fæces are passing. The retention of fæces may be going on to a dangerous and even fatal amount, although fæces are passing; and colotomy may be imperatively demanded.

I will illustrate this subject by several examples of retention of fæces. For instance, pregnancy leads in the early stages frequently to ordinary constipation, the sluggish action of bowels. But if you watch your cases of natural delivery you will frequently find in the extraordinary amount, and in the character of the evacuations, after a natural delivery, evidence that the advanced pregnancy had produced retention of fæces, even when the bowels were truly described as moving regularly. That is not at all an uncommon thing. We had a case of a rare condition in the Martha ward only a few weeks ago, where a retroverted gravid uterus produced obstruction of the bowels with retention of fæces and without retention of urine. A fibrous tumour of the uterus, an ovarian tumour, both occasionally cause very dangerous and sometimes fatal retention of fæces. Adhesions sometimes do the same. Another common cause of retention of fæces is stricture produced by simple inflammatory disease, or by lupus (and of this we had an example in "Martha" about a fortnight ago), or by cancer. Cancer of the rectum is the commonest cause of stricture. We have had several examples of this in "Martha," and I shall read one of them to you:—

"A. G., aged thirty-three, has been married fourteen years and a half; one child thirteen years and a half ago; no miscarriage. During last ten months has had almost constant blood-stained discharge from vagina, sometimes profuse and bloody. Complains of pain in rectum, which is accompanied by desire to go to stool. This pain comes frequently, especially at night, when she has to get out of bed several times. After straining and passing a little fæces, the pain goes off. For three years has had a purulent, not bloody, discharge per rectum. When she takes an aperient some pultaceous fæces are expelled, ribbon-like in shape, and smeared with muco-pus. Occasionally has had retention of urine, requiring the use of the catheter. The belly has a distinctly doughy, pultaceous, feeling, with some resonance everywhere, and no tympanitic sound. The cervix uteri is much enlarged; admits finger deeply, and is nearly filled by a hard nodule, all plainly cancerous. Vagina contains a thin fetid discharge. The rectum admits the finger, but no more; and it can be passed for an inch through a tube which gradually gets narrower so as to prevent further progress. The most contracted part receives the tip of the finger. After staying twelve days in hospital she was discharged with a recommendation to return for colotomy."

This case was peculiarly interesting to us because the great symptom the woman complained of was griping pain seated in her sigmoid flexure—the pain of the bowel making violent efforts to evacuate itself, not tenesmus. We tried to relieve this woman in various ways, but failed. Colotomy was recommended to her, but she preferred to go out of the hospital, at least for a time. What became of her I do not know. She has not returned.

The next case that I shall read to you is a still more interesting one. In this case the bowel was ruptured, probably, at least, partly in consequence of the distension of it. The patient died of peritonitis (as you will see) which lasted for two days. There was no stricture, but the obstruction was caused by cancerous degeneration of the wall of the dilated tube of the bowel for a great length. The cause of obstruction in this case was the same as is believed to be the cause of obstruction in enteritis. A considerable part of the bowel does not act; the fæces accumulate in it, and are only propelled slowly by the *vis à tergo*, or not propelled at

all. In the case that I am about to read to you the fæces were propelled, but inefficiently and too slowly, and although she was, as you will observe, defæcating frequently, and, to the eye of an intelligent nurse, defæcating copiously, the fæces were retained in an extraordinary manner, and no doubt helped to produce the fatal result, at the time it occurred, from peritonitis. Further, in this case the lump in the left hypogastric region was mainly a lump of fæces—that is to say, the bowel distended by hard fæces. It was correctly diagnosed as a case of malignant disease in the left pelvic and iliac region; but it was not ascertained, and I know no means by which we could have ascertained, that the lump consisted chiefly of fæces. We suspected it, but we had no means of getting further:—

“E. W., aged twenty-five, unmarried. Menses began at seventeen, and have been regular till two months ago, since which time they have not appeared. Four months ago began to have painful and difficult defæcation. This has gradually become worse, and for some weeks the pain of defæcation has been agonising and followed by faintness. For a month walking has been difficult, and latterly almost impossible, from the hypogastric pain it produces. Micturition is accompanied by shooting pains. A fortnight before admission she felt a lump in the left hypogastric region, which has increased in size and become the seat of pain. Bowels act, not scantily, twice daily. Urine natural. Is losing flesh. The belly appears natural on inspection, but on palpation a rounded hard swelling is felt, rising from the whole length of left Poupart's ligament. It is dull on percussion, sensitive to touch, quite fixed, and reaches as high as half-way to the umbilicus. The tumour is felt to extend to the right, beyond the region of dulness, as far as the right pubic bone. The cervix uteri is on the right side of the pelvic excavation, and about an inch above the ischio-pubic ramus. It is indurated, and is in the midst of a dense sensitive hardness which fixes it. Probe passes into uterus nearly in natural direction for two inches and a quarter. She was ordered to be well fed, and to have her pains assuaged by morphia. The bowels continued to act fully, twice, and sometimes oftener, daily; fæces hard, and dark in colour. On the fifteenth day after admission she became suddenly worse, with symptoms of peritonitis, including vomiting of foetid green acid fluid in large quantity, and she died two days after this aggravation of her condition. The post-mortem examination, made twelve hours after death, is reported as follows:—Abdomen alone allowed to be opened. Peritoneal cavity contains foetid gas, and a large amount of foetid, brown, semi-purulent fluid. The great omentum adheres behind the whole length of left Poupart's ligament and to the subjacent bowels in the region. The small intestines, moderately distended with flatus, are red, adhere to one another, and are in parts covered with flaky lymph. The whole colon and rectum from cæcum to anus is distended by a hard, solid, continuous column of fæces, about the thickness of the forearm, greenish-black in colour, and of the consistence of putty that is nearly solid. There is no strictural obstruction to the progress of the fæces. The pelvic organs and the superjacent intestines to the left cohere in one mass. Malignant growth occupies the mesentery, which is about half an inch thick; also the walls of the sigmoid flexure and rectum, which are thickened to a varying extent—about one-third of an inch in some places. The bladder and uterus are not affected, so far as the eye unaided can judge. To the left of the uterus is a soft fibrous mass about the size of a small hen's-egg, being the left ovary containing a cyst filled with about a drachm of green pus. The right ovary cannot be discovered. The seat of rupture of the bowel cannot be made out, the intestines having given way in several places during the dissection.”

You observe, then, that constipation is not a necessary symptom of retention of fæces; and that although retention of fæces implies a certain kind of constipation, there may appear to be copious evacuations, while retention of various kinds is still going on.

Retention with accumulation is diagnosed by feeling scybala, or by feeling the bowel distended by a mass which takes impressions like dough. Sometimes the hardness is so great, and the pain produced by pressure so great, that this doughy character cannot be made out. When a woman suffers in this way from great retention of fæces, the belly is generally not tympanitic in any part. In the last case I read to you, the tympanites of the small intestines prevented us feeling the immense column of fæces

which otherwise we should have made out. Often there is no tympanites, but simply the pultaceous condition of the abdomen, with slight resonance all over. Then, as in one of the cases I have read to you, there is sometimes intense griping, and if the retention is in the lower part of the rectum you may have tenesmus. In cases of this kind the whole body sometimes is infected by the foetid mass. The countenance is dull, the face sallow, and in some cases you can smell the breath distinctly fæculent. The retention of fæces, however, seems, so far as I have observed, to produce no very grave symptoms except what are mechanical. I have read several accounts of grave symptoms produced by retention of fæces—even disorder of mind, and lately I read an account of delirium produced by constipation,—but I can at present only express my very great doubts of the accuracy of these observations. I think there was a failure to make out the distinction between a mere concurrence of phenomena and a consequence of phenomena.

The treatment of cases of this kind scarcely requires description. In common constipation you know the favourite purgatives are aloes and castor oil and turpentine, and such like. In cases of infarction of fæces, where you can reach the fæces you remove them, and you are recommended to remove them by a spoon or a lithotomist's scoop; but so far as my experience goes, this is a very useless instrument; and, although it may be disagreeable for the practitioner, I recommend him to use his fingers as infinitely more efficacious than any scoop or spoon-handle. When the mass of fæces is higher up, I have tried what is called massage—pressure, gentle kneading of the bowels, to try to produce action, and to produce a change of the shape of the fæculent mass,—but I have not been able to assure myself that this treatment has done decided good. Enemata are of very great service, but I have left myself no time to speak of them. The most valuable in cases of this kind is the turpentine enema.

Lastly, in some cases of this kind, such as cases of stricture of the rectum which cannot be removed, or cases of paralysis of the rectum by malignant infiltration, as in the last one I read to you, you must consider the advisability of resorting to colotomy. Colotomy is intended to allow the stool to pass before it reaches the disease which causes the retention; and in many cases it is perfectly successful. It allows the fæces to be passed through the loin in a manner causing great inconvenience to the patient, but in a manner that yet can truly be described as perfectly successful. Of course if the disease is malignant, or otherwise a fatal disease, you only get temporary relief; but that is a matter of very great moment. In the second case that I read to you the woman's sufferings were almost entirely dependent upon the griping pains in the sigmoid flexure which came on before a little fæces came away. Surely it would have been very well worth while for the woman to have had colotomy performed to relieve her of this great suffering which she had night and day, and allow her to have the few months which she had to live passed in comparative peace.

The last thing that I will say about colotomy is this. I have already said that the passage of fæces, as it is not a sign that fæces are not retained in many different conditions, is also not a sign which excludes colotomy. Colotomy may be called for, as the cases I have read to you exemplify, even although there may appear to be pretty copious and regular evacuation of fæces.

Before concluding, let me merely mention an important and very disastrous set of cases in which there is extravasation of fæces as well as retention. I do not allude to ordinary fæcal abscesses, whether connected with strangulation of intestine or not. Then there is extravasation; but such cases appeal to the surgeon rather than to the gynaecologist. When an ovarian dropsy, or any such cyst, bursts into the bowel, it sometimes happens that fæces regurgitate into the cyst, generally along with foetid air, and inflammation of the cyst is set up, with feverish and probably septicæmic symptoms. Such cases generally, but probably not always, prove fatal. I have known life prolonged for months after the accident. A similar occurrence in every respect sometimes happens in the case of a perimetric or of a parametric abscess. In one such case under my observation the cavity of the abscess had a large opening into the rectum, and it got alternately filled with fæces and air. It could be felt easily through the hypogastrium, and its varying conditions, as to repletion and as to resonance, raised some puzzling questions, which were solved by dissection after death.

THE DIAGNOSIS OF DISEASES OF THE SPINAL CORD.(a)

By W. R. GOWERS, M.D., F.R.C.P.,

Assistant Professor of Clinical Medicine in University College;
Assistant Physician to University College Hospital, and to the National
Hospital for the Paralysed and Epileptic.

MR. PRESIDENT AND GENTLEMEN,—In complying with the request with which you have honoured me, to inaugurate with an address another session of work of your Society, I have thought it better to select a subject of practical importance rather than of merely theoretical interest. I therefore propose to ask your attention for a short time this evening to the subject of the Diagnosis of Diseases of the Spinal Cord, especially in reference to those points in which modern investigation has added to the knowledge which is current in the profession. In order, however, to make a description of these points useful, it is necessary to include them in a brief general outline of the subject, in which they may take their proper place. In such an outline it will be necessary, for the sake of clearness, to describe briefly some facts which are probably familiar. Others, which must be mentioned, may seem recondite and tedious. For both of these, therefore, I must ask your indulgence.

I trust it will not be felt that I am asking your attention to an unpractical subject. A tendency is sometimes observable, among many members of the profession, to undervalue diagnosis. Our business is to cure disease, so far as we are able, and a fear has been expressed lest our study of exactness in diagnosis should be at the expense of precision in treatment. "It matters little," it has been said, "whether your diagnosis of a diseased condition is minutely exact, if you are able to cure it." This is true; but a very superficial study of practical medicine will show that much diagnosis which is of no direct avail for treatment is essential for the diagnosis which enables us to treat successfully. Of all organs there are some diseases for which we can do little; there are others for which we can do much; but unless we are able accurately to distinguish the diseases of each class, we shall be unable to apply our skill where it is effectual. Moreover, there are examples of the same form of disease, in some of which the diagnosis is easy, in others most difficult. The diagnostic knowledge which is superfluous in one case is essential in another. There is perhaps no class of diseases to which these statements apply more truly than those which are to occupy our attention to-night.

There is another reason why a general survey of the elements of the diagnosis of diseases of the spinal cord may be useful. In books, types of disease are described. But the relation of all parts of the nervous system with each other is very complex, and its morbid states are equally complex. Typical cases are rare, and the untypical cases are often puzzling, and can only be understood by a clear conception of the general principles of diagnosis.

The first question in the diagnosis of diseases of the spinal cord is whether the symptoms are due to organic disease or to merely functional derangement. I can only now indicate to you the *lines* of distinction, as I propose in this lecture to deal chiefly with organic diseases. The evidence of functional disease depends—(1) on the absence of any of the signs of organic disease, presently to be enumerated; (2) on the transient nature of the symptoms; and (3) on the existence of conditions such as are known to be frequently associated with functional disease—*e.g.*, functional nervous derangements elsewhere, the gouty diathesis, hysteria, etc. But I would impress upon you, as a rule of cardinal importance, that the last of these indications, the presence of a cause of functional derangement, is corroborative only. All signs of organic disease must be searched for and excluded, before the presence of the causes of functional disease is admitted as evidence. It is clear that, if there are any signs of organic disease, the existence of the causes of functional disease is of no significance whatever. Hence the importance of knowing accurately all the signs of organic disease, even the most minute and seemingly superfluous. For the causes of functional disease often co-exist with organic disease. Hysterical symptoms, for instance, are often present in the subjects of organic disease

in all parts of the nervous system. There are two causes for this. Many organic diseases are the result of an inherited neuropathic disposition, which may also cause hysteria. Further, the damage from organic disease often affects very widely the nutrition of every part of the nervous system by "action at a distance"; and the degraded nutrition and function may, and often does, lead to the manifestations of hysteria. Striking symptoms of hysteria are often present, for instance, in cases of tumour of the brain. Hence the presence of symptoms of hysteria constitutes alone small evidence that a given disease is merely functional. It may seem superfluous to dwell upon so obvious a point, but I have seen disease again and again (and so, I doubt not, have many of you) set down as hysterical when the plainest signs of organic disease were to be found, if looked for; and this merely because the patient, who presented certain symptoms, presented also evidence of hysteria. This is true also of other causes of functional derangement, and it is true also of the simulation of disease. Circumstances suggestive of malingering should be allowed no weight until the signs of organic disease are proved to be absent. Not rarely the neglect of this obvious rule has led to cruel injustice.

If there is evidence of the existence of organic disease, we have to ascertain further its seat and nature—to make, that is, the anatomical and pathological diagnosis. It is of importance to keep these two points distinct in our minds. Their confusion is, in all diseases of the nervous system, a fertile source of error in diagnosis. It is true that certain parts of the nervous system are frequently the seat of certain morbid processes; but to infer at once, as is often done, that because this or that region is diseased, the morbid process is of a certain character, is to make a pathological diagnosis from anatomical facts; and the diagnosis will, not rarely, be erroneous. It is true we have sometimes to use this mode of reasoning: in the absence of other evidence; or as corroborating other evidence, it is legitimate and useful, but only thus to be used, and always with a full recognition of its character and uncertainty. For instance, two patients, as I have more than once seen, will present identical symptoms of incoördination of movement of the legs—locomotor ataxy. This indicates disease of a certain region of the spinal cord. In the majority of cases the disease in this region is of a certain character; but in some, the symptoms being the same, the nature of the disease is quite different; and to infer the character of the morbid process in the latter case from the symptoms present would lead us not only to a wrong diagnosis, but to an erroneous prognosis and unwise treatment.

It is to be remembered, then, that we can only infer from the symptoms present in a case at a given time—the *seat* of the disease. To learn its *nature* we have to study the way in which the symptoms came on, and any associated conditions which may be present.

I have put this rule thus absolutely because it is one of great importance, often overlooked. There are, however, certain exceptions to it, especially the facts that pain, spasm, and sloughing of the skin are sometimes (not always) signs of an *irritative* lesion. Even here, however, the exception is rather apparent than real; for it is the acuteness of these symptoms, rather than their occurrence, which is of pathological import.

We will consider first, then, the elements of the anatomical diagnosis, the signs which indicate the seat of the disease—"localisation," as it is the custom to term it,—and afterwards glance at the elements of the pathological diagnosis; that is, the symptoms which indicate the nature of the morbid process.

To understand the signs which guide us in determining the seat of the disease, it is, in the first place, necessary to have a clear conception of such points in the structure and normal function of the spinal cord, to enable us to understand the origin of the symptoms of its diseases.

Of the general structure of the spinal cord, of its division into white columns and grey matter, of the distribution of the latter into anterior and posterior cornua, of the separation of the cord into two halves by the anterior fissure and posterior septum, and of the connexion of those halves by the white and grey commissures, I need scarcely remind you. The white columns lessen in size from above down, being composed of nerve-fibres, running for the most part vertically, and ending at different levels. The grey substance is com-

(a) An Address delivered before the Medical Society of Wolverhampton, October 7, 1879.

posed of nerve-cells and fibres, some of the cells in the anterior cornua being of large size, with many processes, and called "ganglionic" or "motor" nerve-cells. The grey substance is most abundant in the cervical and lumbar enlargements, where these nerve-cells are very numerous.

The posterior cornu comes to the surface and cuts off the posterior column of white matter from the rest. Each posterior column thus lies between the posterior median septum and the posterior cornu. At the place at which the posterior cornu approaches the surface there is a furrow; and here the posterior roots of the nerves enter. They do not, however, immediately enter the grey substance, but course through the outer part of the posterior column, which, following Charcot, we may term the "root-zone." A septum of connective tissue separates off, from this area, that part of the posterior column which is adjacent to the posterior septum, and the part so marked off is termed the "posterior median column." The distinction of these two portions of the posterior column is, as we shall see, very important in pathology.

The portion of white matter which lies in front and outside the grey, from the anterior median fissure to the posterior cornu, is structurally undivided, and is termed the antero-lateral column, but has been artificially divided into an anterior column, lying to the front and inner side of the anterior cornu, and a lateral column, lying outside the grey matter. But pathology indicates a more important division than this, and the study of the development of the cord corroborates the teachings of pathology. If certain parts of the brain (concerned in voluntary motion) are destroyed, certain fibres degenerate throughout the cord, and this degeneration thus marks out for us the fibres which are in direct connexion with the motor region of the brain. Two tracts are thus picked out—one in the posterior part of the lateral column, on the opposite side to the cerebral lesion; and one on the same side, in the anterior column, close to the median fissure. These are called the "pyramidal tracts," because the connexion of these tracts with the brain is by means of the anterior pyramids of the medulla. The small one, on the same side of the cord as the cerebral lesion, is the "direct pyramidal tract"; that on the opposite side is the "crossed pyramidal tract."

We have further evidence that the fibres in the posterior parts of the lateral columns descend from above, in the fact that, if the cord is destroyed at any level, these fibres on each side degenerate below the lesion, just as they do after a cerebral lesion. This degeneration is currently, although not very happily, termed "sclerosis," and the degeneration of this area is designated "lateral sclerosis"—"descending lateral sclerosis," when it is the result of a lesion higher up.

I mentioned that the fibres of the white columns end at different levels, and so the white columns become progressively smaller. The portions of the white columns which constitute the pyramidal tracts follow the same rule, and hence the descending degeneration becomes smaller in area the lower we descend in the cord, and in the lowest part of the lumbar enlargement it is very small indeed.

A similar process of "secondary degeneration" furnishes corroboration of the distinctive division of the posterior column, which, as we have just seen, is suggested by anatomy. Below a point at which the cord is completely destroyed, although the lateral columns degenerate, the posterior columns present no change. Above the point destroyed, however, while the lateral columns present no change, and the external or root-zone of the posterior columns presents no change, in the median portion of these columns, the "posterior median columns," the nerve-fibres disappear and become replaced by fibrous tissue.

We may now consider the chief functions of the cord, and the effects of their impairment. In the spinal functions we have to distinguish two great systems of action—that by which the cord transmits, and that by which it controls; i.e., its functions as a conducting organ and as a nerve-centre, reflex and automatic.

The conduction of motor impulses from the brain is in the antero-lateral white columns, probably chiefly in the latter, and it is in the side of the cord corresponding to the limbs moved, the crossing taking place chiefly in the medulla, partly also down the cord. The relative extent of the two crossings varies considerably (as Flechsig has shown) in different individuals. The motor path leaves the cord by

the anterior nerve-roots, but does not enter them directly, passing into the grey matter and probably through the motor nerve-cells with which the anterior roots are connected. The power of voluntary motion may be arrested by a lesion anywhere in this tract—lateral column of the cord, grey matter, and anterior nerve-roots. If the lesion is on one side of the cord the loss of power will be on the same side, and in degree proportioned to the number of pyramidal fibres which have crossed in the medulla; and this, as we have seen, is not always the same.

All sensory impulses—of pain, touch, temperature—enter the cord by the posterior roots, passing partly through the root-zone of the posterior columns to reach the grey matter, and quickly crossing to the other side of the cord. There is some reason to believe that the paths of these several sensory impulses up the cord are not the same. That of pain is commonly believed to pass up the central grey matter; that of touch, and perhaps also of temperature, passes up, in the opinion of some authorities, in the posterior column. According to some other observers, all sensory impulses pass up the lateral column. The evidence is chiefly derived from experiments on animals. In man, however, there is strong reason to believe that both pain and temperature sensation pass up the grey matter. The path of sensation appears less determined than that of motion. A very small portion of undestroyed grey matter will conduct sensation, but it is then, at least in its intenser form, commonly retarded. Thus each form of sensation may be impaired by disease of the posterior roots, either outside the cord or in the root-zone through which they pass; or by disease of the conducting structures of the cord higher up; and, since the paths decussate in the cord, if the lesion is unilateral, sensation will be affected on the side of the body opposite to the lesion (motion being affected on the same side). A strong reason for believing that their paths are not the same is, that the senses of touch and pain and temperature are often impaired in different degrees. The most common change is for the sense of pain to be lost, and touch preserved (analgesia). In such a condition the slightest touch of the finger may be felt readily, but a needle may be driven into the skin and the patient experience only the sensation of a touch. In other cases the sense of touch may be lost, and only the perception of painful impressions remain (anæsthesia). In other cases both are changed proportionately. To ascertain impairment, it is necessary, therefore, to examine carefully the sensitiveness to each form of stimulation, to note how the patient feels the impression (since the sensation, when not lost, may be perverted), to note whether it is localised accurately, and to note whether it is unduly retarded. Sensations of pain and temperature are never so rapid as that of touch, and it is in these that the chief retardation takes place.

The next important function of the cord is its action as a reflex centre. We may regard the reflex system of the cord as made up of a series of nerve-loops, each posterior sensory root being connected with certain anterior motor roots by means of the grey matter. This consists partly of the large motor nerve-cells, and partly of a network of the finest nerve-filaments and minute nerve-cells. The connexion between the roots through the grey matter is apparently by this network of interlacing and connected network of fibres, infinitely numerous, like the filaments of a sponge. But in this are paths of different resistance, so that a slight stimulus may pass by the most ready path to a certain anterior root, and a stronger stimulus may diffuse itself more widely and affect many nerve-roots. For instance, a gentle touch on the sole may cause only a movement of the toes; a stronger touch, a start of the whole leg. A similar wide diffusion may occur in pathological states of the cord. These reflex loops are also connected with the conducting tracts to and from the brain. A motor impulse passing down the cord in the antero-lateral white columns leaves the cord by the anterior roots, which are part of the reflex loop, and probably enters the anterior roots by the motor nerve-cells, which may be regarded as part of the reflex centre. So too the sensory impulse enters the cord by the posterior nerve-roots, which are also part of the reflex loop, and then, leaving this loop ascends up the cord to the brain. Thus the same peripheral impression excites a conscious sensation and a reflex action; and, on the other hand, we can, if we wish, execute voluntarily a movement of the leg quite the same as that of the reflex act. Moreover, we can exercise some voluntary

control over the reflex action, and prevent the start of the leg. It is certain also that not only is there a voluntary control over the reflex process, but that an involuntary and unconscious control is exercised over it by a higher centre, situated in some animals in the corpora quadrigemina, but in man more probably in the optic thalami. If this control is lost, the reflex processes may be intensified.

The value of the reflex actions in diagnosis is, that their persistence is proof that there is no considerable disease in the reflex loop by which they are produced. Hence they yield us very important diagnostic information. Their absence or their excessive degree is, in some circumstances, equally important. It will be well, therefore, to study them in more detail.

It is necessary to distinguish two forms of reflex action—the superficial, and the deep. The superficial are those excited by stimulation of the skin, by a touch or gentle scratch. In a gentle stimulus, contraction occurs in the muscles at or near the spot. A series of such reflex actions can be obtained from the normal spinal cord from the lowest extremity of the cord to the lower part of the cervical enlargement, and they are of great diagnostic importance. Beginning below, we have the well-known reflex from the sole which depends on the lower part of the lumbar enlargement (conus medullaris), when the movement which results is confined to the foot-muscles. Next, irritation of the skin of the buttock excites a contraction of the glutei—the gluteal reflex, we may call it—depending, I believe, on the cord at the level of the fourth or fifth lumbar nerves. Next, there is the well-known cremasteric reflex, by which the testicle is drawn up when the skin on the inner side of the thigh is stimulated. This arises from the level of the first and second lumbar pairs. Next, there is the abdominal reflex—a contraction in the abdominal muscles, chiefly in the rectus, when the skin is stroked on the side of the abdomen, from the edge of the ribs downwards. This is produced in the cord from the eighth to the twelfth dorsal nerves. Next, a stimulation on the side of the chest, in the sixth, fifth, and sometimes in the fourth intercostal spaces, causes a dimpling of the epigastrium on the side stimulated. I think that it depends on a contraction in the highest fibres of the rectus abdominis; it is singularly uniform in its occurrence. We may term it the epigastric reflex; it depends on the spinal cord from the fourth to the sixth or seventh pairs of dorsal nerves. There is no higher reflex on the front of the trunk. If we turn the patient over, we shall find that in many patients, from the angle of the scapula to the iliac crest, stimulation of the skin along the edge of the erectors of the spine excites a local contraction in these muscles. These dorsal and lumbar reflexes, as they may be termed, are only of corroborative value, as they are less active than the more convenient abdominal and epigastric reflexes, which are produced in the same region of the cord. Irritation of the skin in the interscapular region gives us, however, the highest reflex available—a contraction in some of the scapular muscles, when slight chiefly marked at the posterior axillary fold, when more considerable involving almost all the muscles attached to the scapula—trapezius, teres, serratus—and even moving the bone a little outwards. We may term it, therefore, the scapular reflex, and it depends on the integrity of the cord at the level of the upper two or three dorsal and lower two or three cervical nerves.

Thus in these reflexes—sole, gluteal, cremasteric, abdominal, epigastric, and scapular—we have the means of ascertaining something of the condition of almost every inch of the spinal cord from the cervical enlargement downwards. The presence of the reflexes is proof that the path through the cord is not seriously interrupted, but we cannot *simply* infer from their absence that this path is impaired. The reflex excitability of the cord varies much in different individuals, and is often lessened in the old. Some of these reflexes are occasionally absent, therefore, in individuals whose cord is healthy, especially the back and the abdominal reflexes, the latter being also lessened by abdominal disease. It is a remarkable fact, also, that disease of one cerebral hemisphere lessens or abolishes their superficial reflexes on the opposite (paralysed) side of the body—a fact which has been very carefully studied, as regards the abdominal reflex, by Rosenbach, and as regards the cremasteric reflex, by Jastrowitz. It is a remarkable effect, very difficult to explain, but it does not interfere materially with the use of these reflexes as indications of spinal disease, and it affords us, as Rosenbach has

well shown, an important additional indication of the existence of an organic disease of the brain. I will presently give you some instances of the utility of these reflexes in spinal diagnosis.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CASE OF OPERATION FOR CLEFT PALATE,

ILLUSTRATING A NEW METHOD OF PERFORMING
OSTEOPLASTY.

By EDWARD WOAKES, M.D.,

Surgeon to the Hospital for Diseases of the Throat, and Aural Surgeon to the Hospital.

E. B., a boy aged eight years, came into the hospital, under my care, during August of the present year. He had been operated upon in infancy for hare-lip by the late Sir W. Fergusson, with very satisfactory results, though the depression of the corresponding nostril—in this case the left—usually remaining under these circumstances when the original defect involves the alveolar ridge and hard palate, was markedly present. Although the alveolar processes had closed, the cleft in the bony palate was complete. It commenced anteriorly by an arrest in the development of the external half of the left intermaxillary bone, the left central incisor being present, while the lateral incisor of this side was absent. From this point there was a clear gap to the vault of the pharynx, exposing the left turbinated bones. The palate-plate of the left superior maxillary bone ended abruptly in front, where it unites with the corresponding surface of the intermaxillary bone, which was altogether absent. The process of bone representing the hard palate on this side was reflected upwards, so as to be parallel with and very near to the inner wall of the antrum.

On the right side the bony plate of the palate was complete so far as the intermaxillary bone was concerned, but it was deficient in width, and was drawn up to meet the vomer, with which it was continuous. The right upper jaw was altogether much more solidly developed than the left.

Having in view these facts, and especially the delicate constitution of the child—who, notwithstanding a six months' residence in the country, to fortify him for the operation, was still pale and anæmic-looking, and in whom it was to be feared the ordinary operation on the bone would be followed by necrosis,—I devised the following plan of operating with the view of avoiding this contingency:—

A very fine saw, made for the purpose, and figured in the drawing, was introduced through the left nostril, and applied



Diagram one-third size.

to the floor of the meatus to such an extent as partially to divide the palate-plate throughout the greater part of its length near its attachment. A pitchfork retractor was then introduced behind its free margin in the mouth, and pulled upon, the sawing being continued until the plate was brought nearly into a horizontal plane, which was accomplished *without complete severance of the bone*—this being the essential point on which I relied for the prevention of necrosis. The nostril was then packed with lint to keep the bone in its new position, a portion of the long strip used for the purpose being allowed to project from the external meatus to facilitate its subsequent removal. A similar plan was adopted on the right side, the attachment to the vomer being divided with a fine sharp chisel. Owing to the greater firmness of the bony fabric on this side it did not yield to traction so readily as on the left. The edges were then pared, but as the bones did not even now meet in the middle line, a mucoperiosteal flap was detached on each side, and the gap closed with silk sutures. No attempt was made to secure the union of the soft palate at this operation, which was postponed to a future occasion in deference to the delicate health of the patient. In ten days he was well, union being complete.

The object of the above procedure—that, viz., of bringing as much as possible of the natural bony palate into the gap without incurring the risk of necrosis—was fairly accomplished by its means, the result giving a firm roof to the

mouth so far as the operation extended. Out of seven operations for cleft palate performed during the past year, this is the only one in which the condition of the patient demanded any departure from the ordinary method. As, however, the subjects of the severer degrees of this deformity are often of feeble constitutional power, I have felt justified in recording a method of operating on them by which the risk of necrosis is reduced almost to *nil*, and which secures an equally satisfactory result with that obtained by the ordinary mode of performing osteoplasty, in which such risk is largely run.

A CASE OF RUPIAL SYPHILIDE,

WITH INVOLUTION UNDER TREATMENT WITHIN A FORTNIGHT.

By BALMANNO SQUIRE, M.B. Lond.,

Surgeon to the British Hospital for Diseases of the Skin.

THE patient is a married woman, aged thirty, who was photographed on October 6, 1879. She was sent to me from the country by her medical attendant. The accompanying woodcut illustration is taken from the photograph.



Present Condition of the Patient.—As to the face, the eruption is entirely confined to the left side of the face, so that the whole of the eruption, so far as it affects the face, is completely shown in the illustration. The chief part of the eruption on the face dates from five weeks ago—that is to say, from one week after the birth of the patient's last infant. The other skin lesions that are observable in addition to those visible in the illustration are as follows:—On the right side of the scalp, near the middle line, is a rupial scab covering a foul sunken ulcer, and measuring one inch in length by half an inch in breadth. Also on the belly, an inch or two above the left groin, is a smaller scab-covered ulcer. This completes the enumeration of the skin lesions, with the exception of two large characteristically syphilitic scars—the one, about two inches in diameter, situated on the right shoulder; and the other, about three inches in diameter, situated on the outer side of the upper third of the right thigh. On examining the mouth and throat, the tongue is seen to be much seamed with cicatrices. The back of the pharynx is mainly composed of cicatrix, and there is a large, deep syphilitic ulcer in the lower part of the left tonsil, into which a pea would fit easily. The patient does not suffer from hoarseness. The patch visible (in the illustration) on the left ala of the nose extends a notable distance up the lining membrane of the nose, so as to cause a large foul ulcer of the mucous membrane corresponding to the whole of the left ala of the nose. The ulcers which produced

the large scars on the right shoulder and thigh began in December, 1878, and cicatrised in March, 1879. The patient is now very pale, weak, and cachectic; has a bad appetite, and complains of sleeplessness.

History of the Patient.—Nothing can be stated as to the mode in which infection occurred, since no opportunity of inquiry was volunteered. The patient was married eight years ago—namely, at the age of twenty-two years. The history of her marriage is as under:—Married in August, 1872; first baby born December, 1873; second baby born September, 1875 (both children are now alive and healthy); third baby born July, 1877, but died when four months old; miscarriage (at second month of pregnancy), March, 1878; fourth baby born August 2, 1879—that is to say, two months ago. This last baby is stated by the patient to be alive and perfectly healthy, and without eruption of any kind. The patient denies having ever suffered from any vaginal or vulval complaint, whether in the shape of sore or of discharge. The ascertainable history of her complaint, then, dates from shortly after the birth of her third baby—namely, about six weeks after that birth—when she had a general eruption of red spots of about the size of split peas, which were unattended by itching or other morbid sensation. This eruption affected chiefly the face, legs, and belly, and scantily the arms also, but the back not at all. About this time she had a slight sore throat, and the sight of the left eye became affected, and she had an aching pain at the back of the eye. She became very weak and ill, so as to be unable to attend to anything, and her baby also became feeble and emaciated and died, but, as she states, without eruption, excepting only shortly before its death, the eruption being limited to a space behind the left ear. The patient's eruption disappeared within a couple of months under the influence of a "mixture," and the injunction of an ointment to the thighs, but she became salivated, her teeth became loose, and her gums and throat very sore, and she was always spitting saliva. In December, 1878, namely at about the fifth month of her present pregnancy, the large ulcers appeared, which have left the large scars on her right shoulder and thigh. These large ulcers remained open until March, 1879, when, under a change of treatment suggested by a late eminent *confrère*, they speedily healed.

The interpretation of her history may probably be stated as follows:—Her infection took place from a syphilitic father of her third child, the father not affected at the time of impregnation with a chancre, so that the infection occurred (*in utero*) through the medium of a syphilitic foetus. The infection in any case would date from three years back. Then two years and two months ago she had a secondary syphilitic eruption, probably of the "lenticular-papular" kind, which was attended with syphilitic sore-throat and also with syphilitic iritis. For this she was treated without adequate caution with mercury, so that she became salivated; and it is probable that her infant died rather of mercurialism than of syphilis. It is even doubtful whether the infant ever suffered from syphilis at all. The miscarriage which followed, one year and seven months ago, was probably the abortion of a syphilitic foetus. The syphilitic eruption that occurred ten months ago, and was healed six months ago, its course beginning and ending during the middle of her last pregnancy, was of the so-called "tertiary" character.

Treatment of the Patient.—On October 7, 1879, the hair was cut close over the scab on the scalp, and all of the scabs on the face, as also the one on the scalp and abdomen, were thoroughly softened with soap and warm water and then detached. The deep foul ulcerations, bordered here and there with phagedanic edges, were again well washed with soap and water, and dusted plentifully over with powder of iodoform. The ulcer in the throat was well wiped out with a wet camel's-hair brush, and then freely painted with solution of iodine (iodine one part, iodide of potassium half a part, water eight parts). The patient was ordered to take three times a day, shortly after meals, red iodide of mercury one-eighth grain, iodide of potassium one-half grain (to dissolve the mercury), liquid extract of sarsaparilla two fluid drachms in water up to one ounce. She was also directed to take shortly before each meal citrate of iron and ammonia ten grains dissolved in orange wine (one ounce). Her diet was ordered to consist mainly of eggs, rich soups, milk, and farinaceous puddings; and she was directed to take moderate walking exercise three times a day. She was also told to wash all of her sores with soap and water, *every hour*,

if possible, and to follow each washing with a fresh powdering with iodoform powder. The ulcer in the throat was to be painted once a day with the solution of iodine. This treatment was commenced on October 7.

On October 11, the fourth day of treatment, all the ulcers had become quite clean and were granulating healthily.

On October 17, the tenth day of treatment, the greater area of all the sores excepting the central largest one had skinned solidly over.

On October 20, every one of the sores excepting the largest central sore on the cheek and the large sore on the inside of the nostril had completely disappeared; and these had, moreover, diminished to within less than a fourth of their original area.

The patient, who had at first presented a pale, pasty countenance, and an extremely cachectic and feeble condition; who was constantly lachrymose from sheer weakness; who had no appetite and was unable to sleep at night,—had now, within two weeks' time, regained her general health. She "ate like a wolf, and slept like a top," to quote her own replies; she was brisk and hearty in her manner, she had regained her colour, and enjoyed walking about London the greater part of the day.

Remarks.—The conclusions which may perhaps be assumed are (1) that the customary dose of bichloride or biniodide of mercury—namely, one sixteenth of a grain—is unnecessarily small, and might with advantage be doubled, provided that the duration of treatment is proportionately limited; (2) that the iodide of potassium is not absolutely a *sine quâ non* in the treatment of the tertiary syphilides; (3) That the healing local stimulus of iodine, or of its milder preparation iodoform (which smells strongly of iodine), is advantageous in the treatment of phagedænic tertiary sores, and possibly even superior to the aromatic mercurial plaster which is in universal vogue for this purpose all over the Continent, or indeed even to the mercurial ointment preferred in this country. It is, however, to be regretted that it is not the practice of the great mass of practitioners, in this country at least, to treat a syphilitic eruption otherwise than by general treatment, and that even when local treatment is employed it is regarded quite as a secondary matter. As to that question, I would suggest that some results which I have repeatedly observed are worth being checked by other observers. I have frequently cured, for the sake of experiment, such an eruption as the present one by local means alone, sometimes by strong iodine solution, sometimes by iodoform powder, sometimes by mercurial plaster (the *emplâtre de Vigo* of the French) sometimes by mercurial ointment. At other times I have cured a similar eruption solely by mercury administered internally; and in either case quite equally (although in neither invariably) without any speedy relapse, but never with so speedy a result as by the two means combined. The cure of a grave tertiary eruption within a fortnight may fairly be viewed as a satisfactory result. I may take the opportunity of recording the fact that the bare administration internally of iodide of potassium, even in half-drachm doses thrice daily, in cases of tertiary syphilis—an experiment which I have often tried—has not appeared to me to exert any tangible influence as a specific; on the contrary, the influence of the iodide of potassium has appeared to me to limit itself quite absolutely to procuring the absorption of plastic deposits, just in the same way that it influences the recent plastic exudations resulting from causes other than syphilis. I will add only two other observations that are probably familiar to many practitioners. The one is that chronic alcoholism—that is to say, the fairly common habit of "dram-nipping"—if yet quite short of even casual intoxication, is a specially fatal obstacle to the cure of tertiary syphilis by any remedial means whatsoever; and that it is a special predisposer of the grave complication of phagedæna. It has been said that syphilis is the parent of phagedæna; but if syphilis is the father, I would add to this that alcoholism, when found in conjunction with syphilis, is the other special parent of phagedæna. In the present instance, the patient was apparently of quite temperate habits, and hence her comparative immunity from grave disaster. The second observation is perhaps more common-place, but scarcely less important. It is this: that although, in almost any degree of impairment of the general health, mercury ought to be immediately and boldly administered, in cases of even tertiary syphilis—with, however, of course, due care in watching its operation—yet it is always to

be remembered that cachexia, whether the result of alcoholism or of the syphilis itself, or from any other cause, is always a potent ally of syphilis, and ought, therefore, to be on its own account as immediately and as energetically combated as even the syphilis itself, since otherwise any treatment directed merely against the syphilis can only prove itself as inefficient. As an illustration of this axiom, it may be noticed that of the patient's three attacks of syphilis, the two that were the most widely distributed occurred, each of them, about six weeks after parturition, and that the remaining (third) attack occurred during a pregnancy. On each of these three occasions the patient's general health became considerably impaired shortly previous to the development of her attacks.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. PETER'S HOSPITAL.

TRAUMATIC STRICTURE AND FISTULA OF THE URETHRA — INTERNAL URETHROTOMY — SUP- PRESSION OF URINE—GOOD RESULT.

(Under the care of Mr. TEEVAN.)

THOMAS H., a seaman aged thirty, was admitted into the hospital on April 7, 1879, having been put under Mr. Teevan's care by Dr. Pisani, of Malta. From notes taken by Mr. Sidney Phillips, the House-Surgeon, it appeared that the patient had always enjoyed good health till about six years ago, when he was attacked with ague, from which he had suffered at intervals ever since. There was a doubtful history of syphilis and a mark of a sore on the scrotum, but there was no other evidence on his body. In 1868 he had a gonorrhœa, which degenerated into a gleet of a year's duration. Two years later, whilst in China, he had difficulty in making water, and applied to an English surgeon, who passed instruments for him. At a later period he was under surgical treatment at Liverpool. When he went to sea, in August, 1878, No. 9 catheter could be passed, and he was in a very comfortable condition. On November 1 of the same year, whilst descending from the mast, he fell astride an iron railing. He suffered great pain, but went on working for a couple of days, although he was experiencing considerable difficulty in making water, and passing blood. A swelling formed in the perineum, and on November 3 he was obliged to take to his berth. A day later complete retention set in. By November 6 the swelling in the perineum involved the scrotum and extended up to the umbilicus. On November 7 he was put ashore at Malta and admitted into the hospital, where incisions were made into the perineum by Dr. Pisani. A large quantity of pus and broken-down tissue escaped, and a catheter was tied in for twelve hours. For ten weeks the patient was confined to hospital, during which period all the abscesses closed except one. In March he was well enough to leave Malta for England.

When the patient was admitted into St. Peter's Hospital, on April 7, he had a careworn and dejected appearance. There was much induration in the median line of the perineum and scrotum. Urine came freely through a fistula situated about midway between the anus and the junction of the scrotum with the perineum. A No. 12 F. catheter could be passed into the bladder. As the urethra behind the perineum seemed as if it were encased in a tube of iron, Mr. Teevan considered that internal urethrotomy was indicated. The operation, however, was delayed through a bronchitic attack.

On May 7, at 2.30 p.m., the patient was put under the influence of ether by Mr. S. Knott, and Mr. Teevan divided the stricture internally and withdrew all the urine with a No. 22 F. silver catheter. In the evening the patient had a severe rigor lasting one hour. The temperature was 102°, and there was vomiting.

May 8.—9 a.m.: Temperature 100°; pulse 140; profuse sweating; great thirst; tongue foul. After 11 p.m. of May 7 the patient passed no urine for twenty-four hours. A catheter was introduced at 8 p.m. of May 8, but the bladder was found quite empty. Hot fomentations were applied to the loins, and ten grains of quinine were given.

statement as to the number of *bonâ fide* first year's men, I have discontinued the practice."

In connexion with entries, one of the most noteworthy facts is the great falling away at the Dental Hospital. This year there are only 17 pupils, whereas on an average there are 30. This shows tolerably clearly the effect of the recent Dental Act. All who only desired to have their names registered could easily do so, and now we have the measure of those who desire a sound education in dental surgery.

At St. Bartholomew's there are of "full" or "perpetual" students 136, of dental students 2. The "special" entries for practice or lectures 20. The entries to the preliminary science classes are not included.

At St. George's Hospital there are 52 fresh students, of whom 5 have entered for certain courses only. At St. Thomas's there are 96 new students; 53 are what are called "full" (or in some places "perpetual") students, 38 are "partial" or "special." Of the 53, 49 are *bonâ fide* first year's men. The great advantages offered by the London Hospital for seeing practice are beginning to be more highly esteemed. This year there are upwards of 50 men who have entered for special instruction.

PROFESSOR VOLKMANN ON THE FUNGOUS INFLAMMATIONS OF THE JOINTS.

WE are always glad to welcome every fresh contribution of the learned Professor of Surgery at Halle to the literature of his subject. All he writes has the stamp of originality; and he seldom fails to put even well-worn topics in a new light, or to bring out new treasures from sources which many persons would regard as already exhausted. His latest essay, "On the Character and Interpretation of the Fungous Inflammations of the Joints," (a) is an example of this. He takes up the pathology of those joint-affections so common under the name of hip-joint disease—white swelling, scrofulous inflammation of the joints, etc.—to which Billroth has assigned the term "fungous," and he shows that his clinical experience, founded on the examination of large numbers of very early cases of this diseased condition, treated antiseptically, is opposed to the ordinary view of their pathology, or at any rate of the process underlying their initial stage. According to him the disease does not begin in the capsule of the joint, in the synovial membrane; it begins in the bone itself, and is throughout of a tubercular character. We shall devote the rest of this article to a fairly detailed abstract of his facts and of his argument in favour of his position.

The vast majority of these joint-inflammations, says Volkmann, begin with small localised centres of disease (*Heerderkrankungen*) either in or on the surface of the bone. They may lie at some distance from the joint-cartilage, and even in the diaphysis. They are seldom larger than a cherry-stone or a hazel-nut, and usually only one exists in the neighbourhood of a joint, though sometimes there are several of them, and then their favourite seat is the epiphysis. Though very variable in their position, they have certain bones which they specially attack. These are, in their order of frequency, the olecranon, the two condyles of the humerus, the calcaneum, the internal condyle of the femur, and the neck of the femur; the latter suffering more often than the head of that bone. The acetabulum is also much more often primarily affected than has been generally believed, and "the speedy success of an excision of the hip-joint often enough depends on the possibility of discovering and removing such spots of disease from the pelvic bones which enter into the formation of the acetabulum."

What is the histological character of these foci? Pro-

fessor Volkmann believes it is always tubercular, using the term in the strict sense of the word. They are masses of miliary tubercles in various stages, the older caseous, the younger consisting of a reticulum, central giant cells, epithelioid cells in their middle layer, and small-celled granulation tissue in their periphery. They caseate rapidly from want of bloodvessels. We need not further describe the structure of growths so familiar to all students of modern pathological anatomy. Professor Volkmann does not deny the possibility of these primary caseous foci in the bone having a purely inflammatory origin, and depending on what he terms an *Osteomyelitis caseosa*, but his own conviction is that, as stated above, they are invariably produced by the retrogression of miliary or submiliary tubercles.

We must now rapidly glance at the progress of a joint, one of whose articulations is the seat of such a caseous tubercular mass as those above described. The mass itself, according to Volkmann, gives rise to no symptoms until, or unless, it softens, which it does, as a rule, sooner or later. Then either a small abscess forms in the osseous-tissue, or (and this is the rule with children) the caseous matter separates as a sequestrum, and lies free in a cavity lined with grey miliary tubercles. And now the danger for the joint itself begins. The softening of the primary mass excites inflammation in the neighbouring bone-tissue, and formation of pus, which finds an exit either through the periosteum outside the joint, or else (and this is the rule) through the capsule into the joint-cavity itself. In the first case the tubercular virus contained in the pus induces a growth of miliary tubercles wherever it invades a tissue; these tubercles caseate and break down in their turn; the same process is renewed; and we get sinuses, and abscesses whose direction depends on the gravitation of their contents (*Senkungsabscesse*), as, for example, in the lumbar, iliac, and psoas abscesses which depend on tubercular caries of the vertebræ. In the second case there are two possibilities: either the bone pus enters a more or less healthy joint, or one that has its synovial membrane thickened and altered by reactive inflammation connected with the presence of the primary mass of tubercle in its vicinity. Of the two contingencies the second is the more favourable for the joint. As Volkmann puts it, "a joint reacts to inflammatory irritants of all kinds, or to infectious or poisonous matters introduced into it, the more violently the better the physiological condition of its synovial membrane. The more the latter has become vascular, thickened, infiltrated, and the more it resembles granulation tissue, the less sensitive it is to all these irritants, for the protective power of granulation tissue is well known." Hence the healthy joint invaded by tubercular pus tends to suffer purulent rather than fungous inflammation. In either case the synovial membrane undergoes infection, and miliary tubercles develop in its substance, but they only form a comparatively superficial layer in the previously healthy joint, while in a chronically inflamed joint they are scattered in groups of various sizes through the vascular granulation tissue into which the innermost layers of the synovial capsule are converted, and which have given rise to the term "fungous" with reference to this form of joint-affection.

But, whether the joint be healthy or diseased, the miliary tubercles, which are the result of the infection of its synovial membrane from the virus of the primary focus in the bone-tissue, undergo the same changes—caseation and subsequent softening—with further infection of neighbouring tissues by the products of their decay. It is scarcely necessary to add that there is no hard and fast line between the two contingencies we have just referred to; there are all possible intermediate forms of synovial disease.

The cartilage of the joint is little attacked by the tubercular secretion in the joint-cavity. It suffers from the injury

(a) Volkmann's *Sammlung Klinische Vorträge*, Nos. 168, 169.

to its synovial covering, or from the invasion of granulation tissue from the underlying bone. Its detachment in whole or in part is the signal for the infection of the bony ends of the epiphysis, for the development of new tubercular layers on their ends, and their progressive destruction by the retrograde changes and infective processes already described. In a few cases the tubercular eruption in the epiphyses assumes a diffuse character, and large tracts of the medulla caseate. Here the danger of a general miliary tuberculosis throughout the body becomes considerable.

Professor Volkmann admits the existence of a "primary synovial form" of fungous joint-inflammation, but states that it is far more rare than the secondary form, is almost confined to adults, and is always due to primary tuberculosis of the synovial membrane. The cases in which it occurs are the most unfavourable of all; the inflammation of the joint assumes a marked purulent character, there is great disorganisation of the articular tissues, and the patients generally die of phthisis or of tuberculosis of the bowel.

We must now pass on to say a word about the sinuses and abscesses which form in the extra-osseous tissues in connexion with disease of the joints, and which we spoke of above as having a tubercular origin. Professor Volkmann points out that their character has been long overlooked, because surgeons in the pre-antiseptic days (*pace* Mr. Savory) were afraid to open them freely so as to get a view of their interior in the living subject. Now Professor Volkmann at least lays them open with free incisions under the spray, and in the extremities even, if possible, slits up the whole abscess, and makes sure that no pocket remains for the lodgment of pus; he then scrapes away the lining membrane, and the layer of soft granulation tissue under it, with the sharp spoon, until he reaches a healthy, only somewhat indurated, wall outside. Even the largest abscesses of this kind can then be obliterated by careful sutures, their walls being brought into apposition, so as to heal by first intention. The lining membrane of such an abscess in the *living* subject is of a pale greyish-yellow, or very pale violet opaque colour. Volkmann compares it to a large echinococcus cyst. It is readily detached from its bed, and on examination is found to consist almost entirely of thickly agglomerated miliary tubercles. It is peculiar, or practically so, to secondary abscesses in intermuscular and subcutaneous connective tissue, and is scarcely ever found in fungous synovial sacs. Hence, joint-cavities cannot usually be cured, like the secondary abscesses, by the use of the sharp spoon, and the total excision of the capsule is needed in the worst of such cases.

These secondary abscesses communicate by a narrow sinus with the diseased joint, or in the case of extra-articular disease with the diaphysis; and the sharp spoon at once reveals the point where the sinus enters the abscess, because *there* is always found a little granulating spot which cannot be scraped away even by using force. There the introduction of a probe will discover diseased bone.

Lastly, Professor Volkmann enunciates the axiom that "such distinct, separable lining membranes" as those he describes "are only met with as a sequela of tubercular processes."

In concluding his lecture, after pointing out how the obstinacy of these fungous joint-affections depends on continual infection and reinfection of new parts by "tubercular virus," Professor Volkmann warns his hearers not to let his revival of tubercular pathology alarm them too much, or make them too desponding about the results of treatment. He reminds them that in man this virus readily causes local tuberculosis; but not, as in animals, except under special conditions, general tuberculosis. The lymphatic glands, except the bronchial and mesenteric glands, do not readily

caseate in man; and the glands of the limbs, especially the lower, are least of all liable to these changes, whose tubercular character, in the strict sense of the word, has been put beyond a doubt by the researches of Schüppel and others. Hence it does not follow that we are, on the one hand, to doubt the "tubercular" character of the fungous joint-inflammations, because secondary lymphatic tuberculosis is, or may be, absent, nor on the other hand to lay too much stress on the "tubercular" origin of the joint-disease, following the old view of the incurability of tubercle. The patient with fungous articular inflammation may, or may not, be eventually carried off by general tuberculosis, but on the whole the chances are in his favour with rational treatment. The greatest advance that could be made in this direction, if Volkmann's interpretation of the primary caseous foci in the epiphyses of a joint is correct, would be to discover and remove these foci before the softening stage and the disorganisation of the joint have commenced.

We have now sketched, and only sketched, the main outlines of Professor Volkmann's essay. To the sceptics who ask what proof there is of all he has advanced, we can best reply by recommending them to study the essay itself in detail, and, if not German scholars, at any rate to convince themselves, by an inspection of the numerous beautiful woodcuts and coloured lithographic plates with which it is illustrated, that his axioms are founded on something better than romance. To those who follow the progress of modern pathology attentively, there is nothing unexpected or extravagant in Professor Volkmann's discoveries; they are merely the outcome and the confirmation of the infection theory of Buhl.

THE VIVISECTION QUESTION AT PETERBOROUGH.

As many of our readers are aware, there is a fresh outcry being raised by certain emotional individuals for the complete and absolute prohibition of vivisection. The extent to which vivisection has been carried on in England has always been comparatively trifling, and it has never been employed in the wholesale manner too frequent on the Continent. We are moreover confident that when carried out it has been so with a due regard as to what is absolutely necessary. Such things as boys deliberately cutting living animals to pieces without the use of chloroform or any other anæsthetic do not deserve the name of vivisection as employed by medical men. They come under the range of wilful cruelty to animals. Be this as it may, the agitation has not yet ceased. It seems to be taking on a fresh vitality under influences not of the most disinterested kind. Among others a Mr. Ribton Cooke, Secretary to the Anti-Vivisection Society, has been stumping the country in its behalf, endeavouring to procure signatures to a petition to Parliament for the total abolition of the practice. We can readily understand that such gentlemen are not always over-exact in their statements, and that they are likely to enlist on their side certain members of the clergy, especially those of the hysterical sort. It so happened that Mr. Cooke made a pilgrimage to Peterborough, whose Bishop had sense enough to take a moderate view of the subject when discussed in Parliament, and who has suffered in consequence the usual infliction of revilings by letter and post-card. Here, however, sad to relate, Mr. Cooke has been met on his own ground by Dr. T. J. Walker, son of the well-known and highly esteemed practitioner whose name has been so long coupled with Peterborough, and—still worse—the motion proposed by Mr. Cooke was rejected. This did not, however, satisfy the gentleman (it was all due to personal influence)—he *would* enter the lists again—and a special meeting was called by his party to reconsider the vote. It would be hardly worth our readers' while to go through all

the old and absurd arguments adduced on his side, nor need we do so as regards the other. We can only express our regret that ministers of the Gospel should forget themselves and their calling as they seem to have done on this occasion, in using such language as they did; one gentleman especially referred all desire for such knowledge back to that primary example of evil consequences—Eve and the apple. Dr. Walker and Dr. Fothergill both addressed the meeting, adducing illustrations of the value of vivisection in the skilled hands of understanding men; but in this, as in other controversies of the kind conducted *coram publico*, whilst seeking for more abstruse recommendations of the practice, the speakers are apt to forget the simplest illustration of all—namely, that of controlling bleeding. The function of the arteries, and the fact of the circulation of the blood, were determined by Harvey mainly by vivisection on deer provided for him from the Royal demesne at Hampton Court. Where should we be now without a knowledge of how or where to tie a vessel, or of using other similar means for arresting local bleeding? Need we add that Dr. Walker's amendment was carried, and that Mr. Cooke was nowhere! Worst of all, the chairman had to accept a resolution the very opposite of that which the meeting had been invited to endorse.

THE MEDICAL SCHOOL OF ST. BARTHOLOMEW'S HOSPITAL.

ON Monday last the Prince and Princess of Wales opened the new buildings, so far as they are completed, of the Medical School of St. Bartholomew's Hospital. The occasion was a very interesting and important one, as it greatly concerns both the profession and the public that all the means and appliances for teaching at the greatest of our metropolitan medical schools should be as full and complete as possible; but the opening ceremony appears to have been almost purely a civil one. The Senior Physician and Senior Surgeon of the Hospital did indeed assist the Treasurer, the Almoners, etc., in receiving their Royal Highnesses, but the rest of the staff, consulting and acting, were spectators only; and old Bartholomew's men were—we must suppose only from lack of invitation—conspicuous by their absence. The Treasurer, Sir Sydney Waterlow, delivered to their Royal Highnesses an interesting address, in which he traced the history of the Hospital from the days of its foundation by Rahere, in the year 1123, and of the School, or of the use of the Hospital for the purpose of instruction, from the time of Sir Thomas Vicary, Sergeant-Surgeon to King Henry VIII., down to the present time. He dwelt at some length, as befitted the special occasion, on the progress of the School, and its continuous growth in fame and importance, and pointed out how the great and constantly increasing numbers of the students attending it had made it necessary to make much larger and improved provision for teaching purposes. And he spoke of the great lights of the School and Hospital in former days, glanced at the eminent men on the present consulting staff, touched on the worth and skill of the present teachers, and gracefully alluded to the loss that both Hospital and School have sustained by the death of Mr. Callender. The Prince of Wales briefly, but, as he does on all occasions, most aptly, replied, and then declared the three new buildings open. At the festal proceedings, which followed the formal ceremony of opening the buildings, the Prince of Wales again spoke of the deep interest he felt in the Hospital, and said that whenever either he or the Princess could contribute to its prosperity they would not be found wanting. During this part of the day's proceedings the importance and eminence of the professional staff of the Hospital were more duly recognised. Sir James Paget, in asking the

company to wish "Success to the Medical School of St. Bartholomew's Hospital," spoke with his usual effectiveness; but we will only note that he stated the students of the School had during the last thirty-five years increased fourfold, its teachers in just proportion, and its powers and quality of teaching in yet larger proportions; so that it is now not among the first, but first of the metropolitan schools. Sir James referred with justifiable pride to the fact that most of the present teachers had been his own pupils; and expressed his conviction that in their names the fame and excellence of the School would assuredly not wane. We confess, however, that we should like to know whether Sir James really thinks that the present staff of Physicians and Surgeons is large enough to fully utilise, for the advancement of science and for teaching purposes, a service of over 700 beds. Mr. Luther Holden, the President of the Royal College of Surgeons, as Senior Surgeon of the Hospital, ably responded to Sir James Paget; and Sir George Burrows had an opportunity of stating that he himself had known the Hospital for sixty years, and had had the honour of serving it for thirty years. A brief description of the new buildings will be found elsewhere in our pages.

THE WEEK.

TOPICS OF THE DAY.

AT the last week's meeting of the Court of Common Council, held at the Guildhall, a petition, signed by a large number of the ratepayers of the metropolis, was presented to the Court of Common Council, praying the Corporation to render them such general Parliamentary assistance that the notices required by the Standing Orders of Parliament might be given for the introduction of a Bill in the ensuing session for the amendment of the Metropolis Water Act, 1852, with a view to provide a constant and purer supply of water, and for the due administration and control of the companies, and the reduction and uniformity of rates, and for the purchase, if so deemed requisite, by agreement or under Parliamentary powers, of the undertakings of the companies by a body to be nominated by Parliament, or created for such purpose, with such power as may be requisite to deal effectively with the subject in the interest of all London. The petition stated that although the question of the Metropolitan Water Supply had repeatedly come before Royal and Parliamentary Commissions, it had not yet come before Parliament itself, though the grievances under which the metropolis laboured as to quality, cost, and sources of supply had been existing for years. In the absence of any prominent public body outside, the Corporation were asked to take up the subject. After some discussion, it was resolved to refer the matter to the Gas and Water Committee, to confer with her Majesty's Government as to the propriety and possibility of taking steps by which the undertakings of the various water companies might be acquired for the benefit of the metropolis, and to report forthwith. Further agitation on the same subject has also to be recorded as having taken place in Southwark, where, under the presidency of Dr. R. S. Freston, it was moved by Mr. J. Beal, seconded by Dr. Browning, Medical Officer of Health for Rotherhithe, and carried unanimously—"That, in the opinion of this meeting, the time has arrived when the Government should initiate legislation on the great question of the future water-supply of the metropolis."

There can be but one opinion as to the result of the trial of John and Catherine Barnes, the defendants in the notorious Cheshire baby-farming case. Evidence was adduced to show that no fewer than eighteen children had been

confided to the prisoners in the last ten years, none of which are at the present moment in existence. Although the defendants were placed upon their trial for murder, Lord Justice Brett recommended the jury to bring in a verdict of manslaughter, which they accordingly did, and in delivering the sentence his Lordship said: "You have been guilty for years past of the vilest trade that human malignity could have ever invented. I have no doubt you have decoyed into your possession the eighteen children, and have no doubt they died through you. This is a case of as bad manslaughter as was ever brought to the attention of the Court. The many cases you have been guilty of are crimes but a hair's-breadth short of murder; and as manslaughter is next in degree to murder, the sentence of the Court is that each of you be kept in penal servitude for the terms of your natural lives." Such a severe, though undoubtedly well-merited, sentence will have an effect in deterring others from committing like offences; but it is much to be desired that the Infant Life Protection Act should be actively put in force throughout all the kingdom.

A serious epidemic is reported to have broken out at Cape Clear, Ireland. Within a week forty persons have been attacked, of whom no less than sixteen have died. In one homestead three persons were lying dead at the same time; one of them, a girl, had succumbed within four hours after the onset of her illness. Prompt measures have been taken by the Guardians of the Skibbereen Union to meet the emergency, and a medical officer, accompanied by several professional nurses, has been sent off to the infected district. An old telegraph station has been utilised as a temporary hospital. The disease is regarded as a malignant form of measles, and the contagion is said to have been first introduced by a young girl who visited the mainland, where measles was prevalent.

The authorities of Leek have proceeded with no undue haste in the construction of a fever hospital for the district. The necessity for such a building was recognised some thirteen months ago, and the plans are now only just ready for submission to the Local Government Board, from whom the necessary sanction for borrowing the money required for the work has to be obtained. Meanwhile it is stated that scarlet fever, though not epidemic, is prevalent in the town, and the present building which does duty for an infectious hospital is so dilapidated and unsuitable that some of the local practitioners positively decline to expose patients to the risk incurred in being treated in it.

Our contemporary *Iron* says:—"Some of the tricks of speculative builders were justly reprobated by the author of one of the papers read at the recent meeting of the Sanitary Congress at Croydon. Perhaps the most objectionable of these practices is the removal of sand and gravel from house-sites, and filling them up from the dust-heap. Another is the employment of road-sweepings and the like instead of sand in mixing the mortar and in the plaster used inside. For the former we believe there is no remedy at law; but in London, at least, nothing but sand can legally be used in making mortar, although road-sweepings are largely used notwithstanding."

On Saturday evening last the President and Fellows of the Royal College of Surgeons in Ireland entertained Surgeon-Major Reynolds, V.C., at a banquet held in the theatre of the College at Dublin. A distinguished company was invited to meet him, and in the course of a brief speech acknowledging the honour which had been done him, Dr. Reynolds referred to a complaint which had been recently made on the part of the medical profession, that its services were not adequately recognised by the State. On this point he

observed that with regard to the branch of the profession with which he was connected—the Army Medical Department—it had not been overlooked by the generals in command; for Lord Chelmsford and Generals Newdigate and Wood had especially thanked it, and specially named several officers for distinguished services. With reference to this latter remark of Dr. Reynolds, we have been informed on good authority that a distribution of honours will before long be made to certain members of the medical staff recently serving in South Africa.

At a meeting of the Council of the Hospital Saturday Fund, held last week, it was arranged that the distribution of the money collected this year should take place at the last meeting of the Board of Delegates, which is to be held as usual on the last Saturday in November or the first Saturday in December, and at which Mr. Morley, M.P., the President of the Fund, is expected to take the chair.

ROYAL COLLEGE OF PHYSICIANS.

At the meeting of the Royal College of Physicians of London held on the 30th ult., the President informed the College that the new edition of the "Nomenclature of Diseases" is in course of preparation. Dr. J. W. Ogle was appointed to deliver the Harveian Oration in 1880, and Dr. Gowers was appointed to give the Goulstonian, Dr. Cayley the Croonian, and Dr. Roberts (of Manchester) the Lumleian Lectures next year. Several communications were received from the Foreign, Colonial, and Indian Offices. A letter was read from the Colonial Office on the question of utilising reports on medical matters, and was referred to the Censors for consideration and report. From both the Indian and the Colonial Offices many reports on the subject of leprosy were received, and have been laid on the table of the Reading Room of the College. And one copy of the report of the English Plague Commissioners had been sent, by direction of the Lord President of the Privy Council, "to be laid before the College of Physicians." This is not to be found in the Reading-Room, and we understand that, as the report is marked "confidential," the authorities of the College consider that it cannot be laid before any individual Fellow! The force of red-tapeism cannot further go; and the absurdity of the whole matter is too apparent to require any comment.

THE ROYAL ALBERT ASYLUM FOR IDIOTS AND IMBECILES.

The annual general meeting of the Royal Albert Asylum, Lancaster, for the reception of idiots and imbeciles of the Northern Counties, was held in the Victoria Hall, Huddersfield, on the 30th ultimo, under the presidency of Lord Winmarleigh. The report, which commenced with a reference to the loss sustained by the institution through the death of one of its warmest supporters, the late Dr. De Vitre, gave a summary of the receipts and expenditure during the past year. The duly audited balance-sheet showed that during the year over £15,000 had been received from all sources on maintenance account, £1168 on general account, and £1082 on sustentation fund account. The Medical Superintendent, Dr. Shuttleworth, reported that during the year sixty-nine patients had been admitted, twenty-three discharged, and thirteen had died; the average number resident had been 390, and the aggregate number under training 441. The average mental and physical condition of the patients admitted at the last two elections was superior to that of the patients received in the early days of the Asylum, and the Committee has also recently adopted the safeguard of a year's probation, which will have the effect of weeding out cases not likely to benefit by training. The general sanitary condition of the Asylum has been satisfactory, but a detached

infirmity for infectious diseases is still much wanted. Out of 406 patients 225 are actually engaged in some form of industry, such as farm work, gardening, tailoring, shoe-making, joinery, and assisting in household and laundry work. Taken as a whole, the history of the Asylum for the past year may be looked upon as eminently satisfactory.

TESTIMONIAL TO DR. FERGUS, OF GLASGOW.

On the 30th ult. a numerous company of ladies and gentlemen attended the Merchants' Hall, George-square, Glasgow, for the purpose of making a presentation to Dr. Fergus, who has been in active practice in that town for upwards of thirty years, and who, in addition to holding several local appointments, is the Crown representative for Scotland on the General Medical Council. The presentation took the form of a portrait of Dr. Fergus, painted by Mr. Norman Macbeth, having the following inscription on it:—"Presented to Andrew Fergus, M.D., M.R.C.S. Eng., Member of the General Medical Council of the United Kingdom; President, 1874-77, of the Faculty of Physicians and Surgeons of Glasgow; President of the Philosophical Society of Glasgow—by private and professional friends, as a mark of their professional regard, and of gratitude for important public labours, especially in the cause of sanitary science.—Glasgow, 1879." Upon the same occasion a service of plate and some other articles were presented to Mrs. Fergus. The proceedings throughout were very enthusiastic, and afforded ample testimony to the thorough popularity of Dr. Fergus in the city of his adoption.

"DEUTSCHE CHIRURGIE."

We have received from Herr Enke, of Stuttgart, the prospectus of a new surgical work which is being brought out under the above title, and is edited by Professor Billroth, of Vienna, and Professor Lücke, of Strasburg. The work is being published in parts, each complete in itself as to paging and index; and any part can be bought apart from the others. When finished it will form a perfect text-book of surgery as represented by German surgeons; and from the eminence of its contributors it promises to be one of the best publications of the kind (if not *the* best) in any language. From the long list of subjects which have been assigned to different writers we here give a few of the most important. Professor Recklinghausen treats of disturbances of the circulation and of nutrition, Professor Kaposi of syphilis, Professor Bruns of fractures, Professor Volkmann of diseases of the bones and joints; Professor Lücke takes up diseases of the thyroid gland, Professor Billroth those of the mamma; Professor Nussbaum has allotted to him injuries of the abdomen, Professor Esmarch diseases and injuries of the anus and rectum. If we mention further that Professor Maas has the sections on surgical diseases of the bladder and kidneys, and Professor Olshausen those of the ovaries, we shall have said enough to show our readers that the editors have known how to discharge their office worthily.

GEOLOGY IN RELATION TO SANITARY SCIENCE.

THE above is the title of a paper read at the late meeting of the Sanitary Institute at Croydon, by Mr. Alfred Haviland. In the outset he touched lightly on the "dreams" of those who, with thoroughly earnest intention, endeavour to convince themselves and others that a perfectly sanitary condition of affairs can be obtained and preserved. A hundred men and women starting in pairs, he said, at the time when their bodies have just completed their developmental life, which, according to Owen, may be attained at twenty-five years, would, before each pair had arrived at the age when the reproductive powers wane, have increased to at least six-fold; and

as neither death would weed out the little ones, nor excess the elders, this healthy and long-lived community must eventually be overcrowded. Then would follow emigration from the paradise of their fathers' selection, and the consequent rude awakening of the dreamer, since, large as our world may be, it never has been, and we have no grounds for believing it ever will be, a universal paradise; and unless it were to become so, the people of the dream can never become realities. Mr. Haviland, in comparing the present race of men with their predecessors, dwelt on the fact that whilst men have still preserved their manly and intellectual strength, and women their symmetry and beauty, we may now see around us more degraded human forms than the world has ever known, not only absolutely, but relatively; and these more abundant among the civilised than among the barbarous and uncivilised—a consequence of our having gone on living and breeding in limited areas; we have confined ourselves to favoured spots, and have spoiled them. Man is polluting the soil on which his habitation stands, he is befouling his watercourses and springs, and he is poisoning the air he breathes. He has created surroundings from which he can with difficulty escape; and not content with the natural disease-poisons which abound in fens, the tropical lagoons, and deltas of large rivers, he creates around his own and neighbours' dwellings the conditions that will produce newer and specific forms of disease. Man has, in fact, made his own haunts the haunts of fevers, and very magazines of organic poisons; so that the soil which might have been a perennial source of wealth and health, has become one of disease and death. Mr. Haviland was bitter in his denunciation of our boasted knowledge on sanitary matters, which, when compared with the writings of Hippocrates, was, he declared, pigmy in proportion. He criticised the efforts that are made in the present day to overcome the effects of blunders made by engineers and architects in building our houses, and maintained that "blunderingly altering the blunders of others is not sanitary science." In his opinion a sanitary institute ought first to teach in its schools what has already been taught by such writers as Hippocrates, so as to form a wholesome restraint against the pride which a little knowledge engenders. In conclusion, the lecturer thought that before we could boast of possessing any sanitary science, we ought to be able to point to our researches on the climates, the soils, the diseases we find at home, and abroad in our vast colonies. The crust of the earth should be so studied in its relations to diseases, recollecting that there are spots on it that without the help of man produce specific poisons, as to enable us to provide emigrants, colonists, and those in command of necessary and expensive troops, with maps on which all dangerous sites are marked out and, as it were, fenced off.

SICK PAY OF MEMBERS OF FRIENDLY SOCIETIES SERVING IN THE ROYAL NAVY.

A MEMORIAL is being prepared for presentation to the Lords of the Admiralty on behalf of registered friendly societies who have members serving in the Royal Navy. It is the custom in such societies to treat soldiers, sailors, and marines who may belong to them, as country members while on service, and country members are required to send in a medical certificate every week while they are chargeable to the sick funds. Surgeons in the Royal Navy, however, not unnaturally object to giving these weekly certificates or any other notice beyond the first declaration of sickness; and cases have happened in which societies have continued paying the relatives of members for many weeks after the member has recovered his health, and others in which the member has had great difficulty in obtaining the allowance to which he has become entitled. The subject is to be laid before the Secretary of the Admiralty before a formal petition is presented.

ANDERSON'S COLLEGE, GLASGOW.

DR. ANDREW BUCHANAN, President of the Faculty of Physicians and Surgeons of Glasgow, delivered the inaugural address at the opening of the medical session of Anderson's College. The subject of the address was "The Present Age considered as the Age of Biology: the Advantages to the Members of the Medical Profession resulting therefrom, and the Correlative Duties imposed upon them thereby." In the course of his remarks Dr. Buchanan referred to the subject of alcohol, and pointed out the urgent necessity, in view of the widespread evils resulting from intemperance, for legal enactments which would be acceptable to the public generally, and not run to extremes on either side.

THE MARGATE SEA-BATHING INFIRMARY.

PROFESSOR ERASMUS WILSON, it is stated, has made a munificent offer to the Court of Directors of the Margate Sea-Bathing Infirmary. He has announced, through the chairman, Colonel Geaton, his desire to erect, at his own sole cost, a new wing to the institution, which is to contain wards for nearly seventy patients, with a tepid sea-water swimming-bath, and a chapel to give accommodation for 300 persons. A resolution accepting with the warmest cordiality and gratitude this "large-hearted" act of benevolence, the cost of which will probably exceed £20,000, was unanimously passed by the Court. This is even a more practical example of liberality than the recent presentation to the public of the obelisk which for so many years had been awaiting transit to this country.

SHEPHERD MEMORIAL FUND.

WE are informed that the initiators of this Fund have been well rewarded by the cordial and liberal support afforded by medical and other brother officers, as well as the numerous private friends of the late Surgeon-Major Peter Shepherd. The recommendation to limit the subscriptions nominally to 10s. 6d. was not altogether regarded, and the Executive Committee find themselves in possession of funds to warrant the carrying out of the following resolutions arrived at:—
1. The erection in Lochiel Cushnie Church, Aberdeenshire, of a marble tablet with suitable inscription. 2. The offer to the University of Aberdeen of the "die" for a gold medal, together with a sufficient sum, invested in the name of the Senatus, to bring in about £6 6s. per annum, to keep up a "Shepherd Medal" for surgery, to be competed for annually.

PATHOLOGICAL ANATOMY OF DIPHTHERIA.—We may direct the attention of those interested to an elaborate paper read at the Société Anatomique upon this subject, contained in the *Progrès Médical* for September 30, which is much too long to allow of our introducing it into our columns. It is entitled, "Account of 108 Autopsies of Diphtheria executed in the service of Dr. Triboulet, at the St. Eugénie Hospital, between August, 1877, and December, 1878, by Dr. Charles Talaman, interne."

THE PARIS NIGHT SERVICE.—This seems to be increasing in its operations, for while for the quarter ending September 30, 1878, there were 1022 visits paid, there were 1273 during the same quarter of 1879. The visits were paid to 37 per cent. of men, 46 of women, and 17 of children. The mean nightly number was 14, while in 1878 it was 11. Of the visits 110 were paid on account of croup and other laryngeal affections, 63 for asthma and affections of the heart, 166 for gastro-intestinal affections, 65 for various forms of colic, 13 for strangulated hernia, 47 for metrorrhagia and uterine affections, 119 for abortions and labours, 283 for affections of the brain and nervous system, 57 for rheumatism and eruptive diseases, 123 for wounds and hæmorrhages, 23 for fractures and dislocations, and 15 for poisonings. In 33 cases the patients when visited were already dead.—*Gaz. des Hop.*, October 23.

THE NEW SCHOOL BUILDINGS OF ST. BARTHOLOMEW'S.

THE men of St. Bartholomew's School always, in whatever part of the world they may be, are proud of their *Alma Mater*, and gladly hear of all signs of her continued and increasing prosperity; and numbers of other members of the profession feel an interest in the advancement of that great School. We do not hesitate, therefore, to devote a little space to some description of the new buildings that are being erected, and are now partly finished, for the accommodation of the Medical School of St. Bartholomew's Hospital. The necessity for these new buildings has arisen partly from the enlarged educational requirements of the day, but still more from the rapidly increasing numbers of the students. Up to 1873, some sixty or seventy new men entered the School annually; but in 1873 the number reached 100. In 1874 the figures rose to 110; in 1875 to 124; in 1876 to 135; and since then the number has each year been above 150. In consequence of such continuous increase, and wisely recognising the vast importance of the teaching power and duties of a great hospital, the Governors of St. Bartholomew's decided to spend £50,000 in supplying sufficient and proper school buildings; and their decision was approved of by the Charity Commissioners. The buildings already finished have been about two years in erection, and stand upon the site of some houses which fronted Smithfield. Although the fine new stone front is visible from Smithfield, the approach is through the old gate from the quadrangle built by Gibbs in 1730. The façade is nearly 100 ft. in length, and is 75 ft. in height from the basement to the top of the balustrade. The façade next the quadrangle of the Hospital is of simple architectural character, of brick and Portland stone dressings. Within the building the basement contains spacious lavatories, a cloak-room, a students' meeting-room, and class-rooms. The walls are partly of glazed bricks, for the sake of light. In the upper parts of the building the walls are distempered in a light colour, with a chocolate dado. On the ground floor is the library, containing an upper gallery, and capable of holding at least 19,000 books; the cases for the books stand at a right angle to the walls, thus not only forming a large additional space for books, but also providing convenient recesses in the room. At present about 7000 volumes are contained in the library. This apartment is 96 ft. long by 36 ft. wide and 20 ft. high. The floors and cases are of light polished oak. On the first floor is a large room, capable of being made into two by closing a sliding door. The whole length of the room is provided with tables, with lamps and sinks, at which 150 students will be able to work with test-tubes and the other appliances of chemical analysis. Above this floor is a lofty, well-lighted museum, somewhat larger than the library below, containing two galleries, in which it is intended to place the already large and valuable collection of anatomical specimens and other objects of interest connected with the medical art. This pile of buildings has cost, we believe, £30,000, and as soon as possible the rest of the scheme, of which they form a part, will be commenced, and will include an anatomical theatre to accommodate 400 students, a second theatre for at least 200, and dissecting-rooms large enough for 200 students. Professors' rooms, also, and all other necessary conveniences will be provided, so as to make the School complete.

CHOLERA AT KANDAHAR.—From August 12 to 22 there were sixteen cases of cholera in the D-2 Royal Artillery, Gulistan, Kandahar, and of these fifteen—viz., one officer, eleven men, and three followers—proved fatal. The *Indian Medical Gazette* remarks that, leaving out the well-known statistics at Dakka—(nineteen cases, nineteen deaths)—this appears to have been the next most fatal epidemic outburst; and adds that the recoveries from cholera have, throughout the Cabul Field Force, been in most sad disproportion to the deaths—results which, it is natural to conclude, have been chiefly due to trying circumstances of climate, and the want of good shelter, food, and nursing, rather than to any special severity of the disease.

THE THERAPEUTIC VALUE OF THE USE OF ETHER WITH COD-LIVER OIL.

LAST year we published part of the preliminary report of the Committee on Restoratives of the New York Therapeutical Society on this subject. (a) We now lay before our readers the following and subsequent report presented to the Society:—

REPORT ON THE USE OF ETHER WITH COD-LIVER OIL.

The preliminary report on this subject made by this Committee to the Society last April covered thirty-one cases, and furnished strong evidence to support the claims of Dr. B. Foster, who first suggested the combination. We are now able to add sixty-three cases. Of these, three are reported by Dr. Bayles, fifty by Dr. Kinnicutt, and ten by the reporter. A few of these are here given in brief.

*Case 1 (reported by Dr. Bayles).—*Male, aged forty. Exhaustion following abscess in perineum. Cod-liver oil with hypophosphites of lime and soda was first tried. This was tolerated by the stomach, but produced cerebral fulness, and plain oil was substituted. This disagreed with the stomach. Twenty minims of ether added to each dose of 3 iij. acted fairly well for two weeks, after which nausea and frequent vomiting came on. Subsequently 3ss. of the pure oil was given, and fifteen minutes afterwards 3j. of the spirit of sulphur. ether in carbonic acid water. This was continued two months with the happiest effect, the oil given this way being digested without difficulty.

*Case 2 (Dr. Bayles).—*Female, aged twenty-two. Exhaustion following abortion with putrid foetus. Vomiting of food. Cod-liver oil was given, 3 ij. t. i. d., and twenty minutes afterwards ℞xx. of spt. ether comp. On several occasions the ether was purposely omitted as a test, and the oil always produced gastric irritation. The experiment of giving the oil and the ether in the same dose was also tried, and resulted in less complete digestion of the oil than when the ether was given afterwards, eructations, headache, etc., being produced.

*Case 3 (Dr. Bayles).—*Male, aged thirty-five. Chronic diarrhoea from imperfect stomach-digestion. Attempts at rectal alimentation failed. Cod-liver oil, followed by ether, was given, and was well borne, and formed the principal nourishment for eight days, when the appetite returned and food was taken with some relish. After from twenty to thirty days the oil was discontinued altogether, a complete cure having been effected. Repeated experiments were made by omitting the ether, or giving it in emulsion with the oil, but none of these attempts were successful.

Dr. Kinnicutt has administered ether with cod-liver oil in fifty cases, and has not met with a single instance in which the combination was not well borne. He has repeatedly prescribed the pure oil, and found that it disagreed, while the same patients afterwards took the etherised oil with perfect ease. He quotes two such cases:—

“K. B., aged eight months, a delicate anæmic child, with scrofulous diathesis, was admitted into the out-patient department of the New York Hospital, in January 26, 1878. Ordered ol. morrh. 3 ss. t. i. d.

“July 1st.—Patient is unable to take the oil, invariably vomiting immediately after its ingestion. Ordered spt. etheris ℞ iss. in each dose of oil.

“13th.—The first dose of the etherised oil was retained, and it has been given with the same success since. In connexion with the above case I would mention that I have notes of a number of similar cases among very young children.

“M. G., aged twenty-five, was admitted on February 1, 1879. Patient is an anæmic woman with scrofulous diathesis. Under treatment since August, 1878. Ol. morrh. was prescribed, but patient was unable to take it on account of nausea and vomiting produced. She has been able to take the etherised preparation with perfect ease, and its use has been attended with improved nutrition. On one occasion, through a mistake of the druggist, one-half of the usual quantity of ether was used in the preparation of the prescription. The first dose was vomited, and subsequent ones,

until the mistake was rectified. The first dose of the corrected preparation was retained.”

In my own case I have not prescribed the etherised oil, unless I found by trial that the plain oil could not be borne. I have met with six such cases, in which the addition of the ether was completely successful. In four other cases, in which the patients could not take the oil either plain or in emulsion, or with brandy, the difficulty was not overcome by prescribing ether with it.

The Committee are of the opinion that the evidence before them warrants the following conclusions:—

1. That the addition of ether to cod-liver oil in about the proportion of fifteen minims to each half-ounce (or an equivalent amount of the compound spirit of ether) will succeed in the vast majority of cases in enabling the patient to take the oil, even though it previously disagreed.

2. That in some cases in which the oil still disagrees after the addition of the ether, the difficulty may be overcome by giving the ether separately from fifteen minutes to half an hour after the oil is taken.

No facts have been laid before the Committee having a bearing upon the question as to whether the etherised oil is superior to the plain oil in its ultimate effect upon nutrition, supposing them to be equally well tolerated by the stomach.

FROM ABROAD.

PARACENTESIS OF THE PERICARDIUM.

DR. JOHN ROBERTS brought before the Philadelphia Medical Society (*Philadelphia Medical Times*, August 16) the question, “Is paracentesis of the pericardium a justifiable operation?” putting it thus in the interrogative form, not that he had any doubt that the reply should be affirmative, but because there is a disposition among the profession to regard the prognosis of the operation as most grave. After studying the subject for several years, and collecting all the cases accessible to him, he comes unhesitatingly to the conclusion that pericardial effusion should be treated in the same manner as effusion in the pleura; and he is convinced that many patients die because their attendants are too timid to employ the trocar. In fact, he cannot find that the operation has been performed more than seven times in America. “Just as paracentesis for pleurisy has proved more successful since its performance is not deferred too long, as heretofore, and better instruments are employed, so will the same operation in pericarditis show similar favourable results when the profession has come to regard it as less dangerous than allowing the retention of a large quantity of fluid in the pericardium. In the vast majority of cases a sure diagnosis may be formed, and the operation itself is easily and expeditiously performed, the relief immediate, and the after-treatment simple. The best mode of procedure is to thrust the aspiration-trocar directly through the wall of the thorax. A point well chosen is in the fifth intercostal space, about an inch and a half from the middle line of the sternum—which, by the way, is more readily determined than the left edge of the bone, since the tissues prevent accurate determination of this border. The operator must also recollect the fact that the intercostal spaces become narrow as they approach the sternum, and that the cartilages of the lower ribs are inclined obliquely upwards. Unless these anatomical points are thought of, the needle may be thrust into the cartilage and necessitate a second selection of a place for operation.” The cases suitable for operation are all those in which medicines have failed to relieve the heart by reducing the quantity of fluid. In such the use of the aspirator should not be delayed until the patient is worn out, the lungs engorged, and the pericardium converted into a pyogenic membrane. “The most brilliant results are obtained in cases in which serous effusion of great amount has suddenly occurred in articular rheumatism: here the withdrawal of the fluid averts all danger, and the patient recovers from the rheumatic fever in a few weeks. When there is Bright’s disease, chronic pleuropneumonia, or purulent pericarditis, it is not to be expected that the success obtained will be so perfect.” Dr. Roberts has been able to find the records of forty-nine authentic

(a) *Vide Medical Times and Gazette*, September 21, 1878.

eases of paracentesis, of which twenty-three were successful and twenty-six fatal, or nearly 47 per cent. of recoveries, which result he regards as very encouraging, when it is remembered that many of these cases were complicated by serious disease of other organs. In conclusion, Dr. Roberts says:—"I would say that paracentesis of the pericardium is a justifiable operation; nay, more, it is at times imperatively demanded, and he who refuses to give the patient such a chance for his life in proper cases is as guilty as he who allows a child to die undelivered because he delays the application of the forceps."

In the discussion on the paper, Dr. Pepper observed that this was one of those operations which he was inclined to claim for the physician rather than for the surgeon, since, while it is a comparatively trifling one, the questions of the time of its performance and its conditions are of the greatest importance. He agreed with Dr. Roberts in replying affirmatively to the question proposed. From observation of post-mortem examinations, in which unsuspected pericardial effusions are sometimes found, he came to the conclusion that such effusions are not infrequent, and are often overlooked during life. And yet the diagnosis, as a rule, is simple and easy, the only possible difficulty being in the case of a dilated heart, where there is a feeble asystolic action of the ventricles, accompanied by extended area of dulness. Difficulty of diagnosis can only occur when the case is first seen after it is fully developed; but even then there are points to be observed which would generally present a mistake—such as the altered intensity of the sounds, the relation of the cardiac impulse to the intercostal spaces, and the outline of the percussion dulness. There are complicated cases where some doubt may remain, as when large pleuritic effusion accompanies that in the pericardium. In such a case the pleuritic effusion should be removed by the aspirator; and if necessary, the pericardium can be subsequently tapped. In a recent case, after the fluid had been removed from the pleura, that in the pericardium was absorbed under the influence of medical treatment only. Dr. Pepper, in performing the operation, prefers a moderately large aspirating needle, as shreds of lymph, present in the fluid, might clog a too small one; and when a small tube is removed for cleaning it is re-introduced with more difficulty. He prefers introducing the needle a little further from the sternum than recommended by Dr. Roberts, and in the fifth interspace as being less likely to injure the ventricle—in a line about on the level of the nipple, a little to the outside of the position of the normal apex-beat. "As the results of the operation are always brilliant in the marked relief and improvement it affords, and as it frequently prolongs life so as to give time for the action of other remedies, it will compare favourably with any other procedure in the field of legitimate surgical operations."

FOREIGN BODIES LODGED IN THE BRAIN.

To the *Philadelphia Med. Times* of July 19, Dr. Wharton Assistant to the Professor of Clinical Surgery in the University of Pennsylvania, has contributed a paper containing an "Analysis of 316 Cases in which Foreign Bodies were lodged in the Brain." These cases are exhibited in a tabular view, with the references to the works and journals in which their details are to be found—tables which will be found of great utility to future inquirers.

Of the 316 cases, 160 recovered and 156 died. In 106 cases the foreign body was removed, death following in 34 cases, and recovery in 72. In 210 cases no attempt was made to remove the foreign body, death following in 122 cases, and recovery in 88 cases. About 10 patients who recovered sufficiently to attend to their regular occupations, but who ultimately died at periods varying from three to fifteen years from the effects of their injuries, are classed as having recovered.

"Considering the severity of the injury, the proportion of recoveries is large, but, on examination of the cases, it will be observed that many of the recoveries were not complete, the patients suffering afterwards from epilepsy, vertigo, impairment of mind, incapacity for physical exertion, paralysis, loss of sight and hearing. In 111 of the cases of recovery the above-named symptoms were wanting, while they were present in 49 cases. In the 111 cases that recovered without bad symptoms the foreign body was removed in 56 cases, and allowed to remain in 45. The question of interference

is one which has caused much discussion, but on which authorities are now generally agreed. In the following collection of cases the results of the removal of the foreign body were not only most satisfactory as regards recovery, but also as regards the completeness of the recovery. There can be no doubt that the presence of the foreign body increases the gravity of the injury, and that when its position can be accurately located, and when its removal can be accomplished without too great a destruction of tissue, it should be attempted. The difficulty of locating the foreign body is great, for when it has once passed out of sight the surgeon has no means of discovering its position except by the probe. Extreme care should be taken in passing a probe along the track of a foreign body in a wound of this nature, as little force is required to cause it to pass through the unresisting brain-structure in a course different from that taken by the vulnerating body. On the other hand, where the body cannot be accurately located, all attempts to find it by frequent probing should be desisted from, for, as has been shown, a large number of cases have recovered where it has not been removed, and there is a possibility of its becoming encysted, and of recovery taking place in this way, or of life at least being prolonged. . . . The presence of the foreign body in the brain in many cases excites inflammatory action, which may be either rapid or slow in its progress, sometimes destroying large amounts of brain-tissue before the case ends fatally. That cerebral abscess is a frequent cause of death is clearly shown by the fact that it was present in at least fifty-three of the fatal cases where post-mortems were made. In many other cases the examination was made solely with reference to the location of the foreign body, and the condition of the surrounding tissues is not stated. Apoplexy is also shown to be a cause of death in these injuries, but much less frequently than abscess. Pressure of the foreign body on the venous branches, interfering with the return of the blood, causing effusion into the cavities of the brain, and this effusion interfering by its pressure with the functions of the nerves that have their origin from the base of the brain, is also noted as a cause of death. Convulsions and coma, also resulting from this interference with the circulation of the blood in the brain, are frequently noted. A tendency to coma, it may be here stated, as in all head injuries, is a most unfavourable symptom, nearly every one of these cases in which it was noted proving fatal. The presence of the foreign body in the brain seems to predispose to inflammatory action; in some cases of recovery, where the foreign body remained in the brain, the cases proceeded favourably until some cerebral excitement was experienced. Five cases are recorded in which death took place suddenly after excessive drinking; in one it did so during the excitement of a game at cards, and in another after a slight injury of the head. Seven cases were complicated with hernia cerebri, three proving fatal and four recovering. In quite a number of cases the foreign body remained in the brain for some time without causing any unfavourable symptoms, when suddenly cerebral symptoms arose and death quickly followed. . . . Brodie's opinion that recovery is more apt to follow wounds of the anterior portion of the brain, is strengthened by the cases in which the frontal bone was penetrated, of which there were 132, death following in 58 cases, and recovery in 74. There were 58 cases of penetration of the parietal bones, followed by 27 deaths and 31 recoveries. The occipital was penetrated in 23 cases, with 16 deaths and 7 recoveries. The temporal bones were penetrated in 31 cases, with 12 deaths and 19 recoveries. Wounds of the orbit were by far the most fatal, 18 of these being followed by 17 deaths and 1 recovery, although the persons were in many cases unconscious of the injury, and the unfavourable symptoms developed suddenly. The sphenoid bone was penetrated in 5 cases, with 4 deaths and 1 recovery. In 49 cases where the point of entrance was not definitely stated there were 22 deaths and 27 recoveries."

COLLODION AS A PREVENTIVE OF SEA-SICKNESS.—Dr. Laederich strongly recommends, in *L'Année Médicale de Caen*, the application of ricinated collodion to the epigastrium. The traveller, before embarking, should apply, with a pencil, three successive layers of the collodion to the epigastric region, taking care to go considerably beyond its anatomical limits, extending it from the umbilicus to the lower margin of the breasts.

REVIEWS.

Cyclopædia of the Practice of Medicine. Edited by Dr. H. VON ZIEMSEN. Vol. XVI. Diseases of the Locomotive Apparatus and General Anomalies of Nutrition. London: Sampson Low, Marston, Searle, and Rivington. 1877.

THIS volume affords a notable instance of the somewhat curious and, as we cannot help thinking, illogical classification of diseases adopted by Professor von Ziemssen. Under the heading "Diseases of the Locomotive Apparatus" are included all varieties of rheumatism, gout, rickets, and malacosteon. Inasmuch as all these diseases are due to general constitutional dyscrasie, of which the locomotor affection is only one out of many local manifestations, we fail to see the reason for making a symptomatic classification of this kind, nor are we aided by a further examination of the table of contents, for the next article after that on malacosteon is a short section devoted to the question of catching cold.

Then comes the section on General Disorders of Nutrition, in which are included anæmia in all its varieties, corpulence, scrofulosis, lymphatic gland disease, diabetes mellitus, and diabetes insipidus. There are many points calling for remark in this classification, but the most prominent fault, in our opinion, is that which has separated the class of cases here grouped under the term "malignant lymphoma" from the allied disorders of the other blood-making organs. This term is meant to include all those cases which have hitherto been classified as Hodgkins' disease—lymphadenoma and *adénie*—and, considering how very closely such cases are allied to splenic leucocythæmia, we think it most illogical to have treated them in different volumes.

Coming to the articles in detail, we must speak in the highest terms of the very able articles on the various forms of Rheumatism, which are written by Professor Senator, of Berlin. We should have been glad to find a more willing recognition of the diathetic nature of these diseases than the author gives us. Of acute articular rheumatism he only says that "there are some recent observations . . . which ought, undoubtedly, to stimulate us to further inquiry." In the case of chronic articular rheumatism, however, while he allows that it is especially prone to occur in those who have gone through repeated attacks of acute rheumatism, yet he lays great stress on its being a purely local disorder unconnected with any constitutional tendency. On this assumption he decries the use of any anti-rheumatic remedies, and trusts entirely to local means and improvement of the general health. We can only say that we think that those who follow his advice to the letter will be often baffled in their attempts to deal with this disease.

We have nothing but praise for Professor Leitz's article on "Catching Cold." He has summed up in it a number of anomalous conditions which are generally passed over much too briefly in medical works.

Prof. Immermann's articles on Anæmia and Chlorosis are of the most exhaustive description, occupying between three and four hundred pages of this volume. Our only criticism would be directed against the great length which he has allowed his articles to reach. We should pass the same criticism on his article on Corpulence, which occupies 130 pages, no less than forty of which are given up to the therapeutics of this condition.

The article by Dr. Birch-Hirschfeld on Lymphoma is short, and on some points wanting in clearness. This, we think, is mainly due to the difficulty the author has had to contend with in treating the subject apart from other diseases of the blood-making organs.

The articles by Dr. Senator on Diabetes and on Diabetes Insipidus are admirable, and may well be taken as samples of the form which cyclopædic articles should assume. We have no hesitation in saying that this volume as a whole well sustains the reputation already acquired by the earlier volumes of this great Cyclopædia.

SHORT NOTICES OF FOREIGN JOURNALS, ETC.

Il Siglo Médico, Boletín de Medicina y Gazeta Médica: Periodico de Medicina, Cirujía, y Farmacia, consagrado a los Intereses Morales, Científicos, y Profesionales de las Clases Médicas (*The Age of Medicine, Bulletin of Medicine and Medical Gazette:* A Periodical of Medicine, Surgery, and

Pharmacy, devoted to the Moral, Scientific, and Professional interests of the Medical Community).—This is the title of a weekly Spanish Medical Journal, published in Madrid, of which some numbers for the present year have been forwarded to us. The contents are of a varied character, consisting of original articles, local medical news, and extracts from medical works, both Spanish and foreign. The editorial articles exhibit a desire on the part of the conductors to maintain a high moral tone of the profession.

Two memoirs, entitled respectively *Marantische Thrombose der Vena Centralis Retinæ* (Wasting Thrombosis of the Vena Centralis Retinæ), and *Beiträge zur Pathologischen Anatomie des Auges* (Contributions to the Pathological Anatomy of the Eye), both written by Dr. A. Angelucci, of the Ophthalmic Clinical School of Rostock, are valuable contributions to the microscopico-pathological department of ophthalmology.

Giornale Internazionale delle Scienze Mediche, diretto dal Dottore Antonio Raffaele (*International Journal of the Medical Sciences*, edited by Dr. Raffaele); Naples, 1879.—The third, fourth, and fifth numbers of this Journal for the present year contain a great amount of valuable information partly original and partly selected, on every branch of medical science. The plan of the work consists in dividing the contents into sections, comprising, respectively, Physiology and Anatomy; Pathology and Clinical Medicine; Pathology and Clinical Surgery; Obstetrics and Children's Diseases; Ophthalmology, Laryngoscopy, and Aural Surgery; Syphilography, Dermatology, and Psychology; Therapeutics and Pharmacology; and Hygiene, Legal Medicine, and Toxicology; together with short notices of passing events. The original articles display in a very favourable light the learning and zeal of our Neapolitan *confrères*, and the selected matter comprises an extensive assortment of reviews and translations of foreign contributions to medical science, among which British medical literature plays no inconspicuous part.

Il Movimento Medico-Chirurgico (Progress of Medicine and Surgery), conducted by various Professors of Naples, Genoa, and Palermo, and edited by Professor Michele del Monte, of the University of Naples.—This number, for the early part of the present year, contains four original articles—one on the Poisonous Solanaceæ; the second on a case of Strangulated Hernia of the Foramen Ovale; the third on the Alterations produced by the Air in the Anterior Chamber of the Eye; and the fourth on Fibro-sarcoma of the Caruncula Lacrymalis. The rest of the number consists of Reviews and Critical Notices on Medicine, Surgery, Genito-Urinary Diseases, Climatology, and Therapeutics.

Two memoirs read at the Reale Accademia dei Lincei of Rome, respectively entitled *Osservazioni sulle Alterazioni dei Gangli Intervertebrali in alcune Malattie della Midolla* (Observations on the Alterations of the Intervertebral Ganglia in some Diseases of the Spinal Cord), by Dr. Arnaldo Angelucci; and *Ricerche Istologiche sull' Epitelio Retinico dei Vertebrati* (Histological Researches on the Retinal Epithelium of Vertebrate Animals), by the same author. In the former of these memoirs Dr. Angelucci describes four cases of disease in which the alterations in the structure of the spinal cord were extended to the roots of the spinal nerves and to the intervertebral ganglia. Two of the cases were from the results of injury, and the other two were from chronic disease. The alterations—which are of course microscopic—are minutely described and figured. In the other memoir, which is physiological, the author describes and figures the appearances seen on the epithelial surface of the retina in several of the lower animals, principally frogs, tortoises, and rabbits.

A memoir entitled *Studii di Termometria Cerebrale negli Alienati* (Studies of Cerebral Thermometry in the Insane), by Drs. Maragliano and Seppilli, gives an account of some observations made by the authors in the Lunatic Asylum of Reggio, in Italy, with a view of determining if the various forms of mental alienation presented differences in the cerebral temperature, whether contrasted with one another or with the condition of healthy persons. The total number of cases recorded was 115, and the thermometers were applied to three regions of the head, namely, the frontal, the temporal, and the occipital; and in order to correct or confirm the results, the instruments were afterwards applied to the axilla and the rectum. The results obtained are curious and interesting.

PROVINCIAL CORRESPONDENCE.

IRELAND.

DUBLIN, November 4.

THE INTRODUCTORIES:—HOUSE OF INDUSTRY HOSPITALS; ST. VINCENT'S HOSPITAL; ADELAIDE HOSPITAL; SCHOOL OF PHYSIC IN IRELAND; MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

ON Thursday, October 30, the inaugural address on the occasion of the opening of the session at the Richmond, Whitworth, and Hardwicke Hospitals was delivered by Dr. Benjamin G. MacDowel, in the lecture theatre of the Richmond Surgical Hospital. In the course of an interesting and chiefly extempore discourse, Dr. MacDowel referred especially to the importance of clinical study and of clinical lectures. At the conclusion of his remarks the lecturer spoke of the heroism displayed by Surgeon-Major Reynolds in the defence of Rorke's Drift. He said that in the desperate struggle which lasted through the entire night of January 22, and which was preceded by a still more awful day, Surgeon-Major Reynolds attended to the wounded and fought alongside of the bravest, exposed incessantly to dangers which we cannot realise. It will be remembered that on the fatal day of Isandhlwana Dr. MacDowel himself lost a gallant son, Lieutenant MacDowel of the Royal Engineers.

On Thursday morning Dr. F. J. B. Quinlan delivered the "Introductory" at St. Vincent's Hospital, Stephen's-green. He lectured on the important subject of "Death-rate and Sanitation." He alluded to the insanitary condition of Dublin, and the consequent extremely high death-rate, now the highest in the United Kingdom, and which has increased is increasing, and yet could by proper attention to well-known sanitary laws be diminished and brought within reasonable limits. The death-rate of Dublin last year, which was the highest on record since the last visitation of cholera, is not appreciably due to the climate or to the situation of our city, but principally to insufficient sanitary precautions on the part of nearly all parties concerned, both by public authorities and private individuals, rich as well as poor. In conclusion, Dr. Quinlan said: "The great stumbling-block to sanitary improvements here and elsewhere is their great expense and the natural desire of our municipality to keep down the rates. The expenditure required to place Dublin in a proper sanitary condition will be very great, both to public authorities and to private owners. This expense will have to be met, for the present state of things is appalling, and a remedy must be accomplished at any cost. It is the duty of the well-to-do to bear this expense, and it is also their interest, for when there is a high death-rate among the poor of a great and crowded city the rich will suffer in proportion."

On Saturday, November 1, Mr. J. K. Barton opened the session at the Adelaide Hospital. He addressed the students on the subject of hospital attendance, and said that the Hospital now contained 123 beds for clinical study. The new library was to bear the name of a former Physician to the Hospital, now one of the most trusted and valued consultants in this city—Dr. Alfred Hudson.

On the same day, Dr. Alexander Macalister, the lately appointed Professor of Anatomy and Chirurgery, formally commenced his course of lectures with an introductory address, in which he reviewed the history of the medical school connected with Trinity College.

Monday, November 3, was the opening day at the Meath Hospital and County Dublin Infirmary, where the inaugural address was given by Dr. J. W. Moore, one of the Physicians to the Hospital. After dwelling on the importance and manner of hospital work, Dr. Moore addressed himself to the subject of what might be called the "Microcosm of Disease." He sought to epitomise the present state of our knowledge respecting the organised or vital causes of disease. He showed that there is good reason to believe that in the septic group of diseases, in relapsing fever, in malaria, in noma, and in some forms of diarrhoea, the presence of microphytes in the blood or other fluids of the body has an intimate causal relation to the phenomena of these several affections—the microphytes either exciting the disease themselves, or play-

ing the part of a ferment which sets a-going the development of the specific poison or virus of the malady. He showed also that in the contagious diseases the contagium is particulate, incapable of reproduction outside the body, and although not referable to the lower forms of fungi, nevertheless a *contagium vivum*, growing and multiplying indefinitely when placed upon a congenial soil.

What, then, is the practical bearing of these researches? The expressions "preventable disease" and "preventive medicine" have of late years become "familiar as household words," and the lecturer could not help thinking that they are now likely to acquire a fuller and more precise meaning than they have ever possessed in times past. He referred to the mistaken and confused views of those who regard disease as a Divine punishment for sin, and look on the term "preventable disease" as being, at the least, irreverent, and declared his belief that every earnest effort made to prevent disease and the misery it brings in its train has the Divine sanction and approval.

In striving to attain the prevention of disease, he said, "we may hope (1) so to modify the nature of the contagium as to render it inert or comparatively innocuous; (2) to destroy it absolutely either (a) without the body or (b) within the body; (3) so to counteract its effects upon the organism as to save the patient's life, or even cause the symptoms quickly to disappear."

Dr. Moore concluded by quoting some eloquent, weighty, and almost prophetic words, on the germ theory of contagion, from an address delivered some years ago by the late Dr. Stokes, in the theatre of the Royal Dublin Society.

On Monday, the 3rd inst., the opening addresses were also delivered at the new Carmichael College of Medicine and Surgery, by the President, Dr. Samuel Gordon; at the Ledwich School, by Mr. Alcock Nixon; and at the School of the Catholic University, Cecilia-street, by Dr. Christopher S. Nixon.

GENERAL CORRESPONDENCE.

STATISTICS OF OVARIOTOMY.

[To the Editor of the Medical Times and Gazette.]

SIR,—British surgery has gained so brilliant a triumph by the publication of the results of ovariectomy in the hands of surgeons who have published all their cases, whether successful or unsuccessful, and with true details as to cause of death; and the practice of the Samaritan Hospital has hitherto been so free from any reproach on this score, that I am anxious for some explanation of Dr. Bantock's note at page 512 of your last number. He says his last twenty-four hospital cases all recovered, but he includes in the recoveries one who died three weeks after the operation of acute otitis. Now, sir, is it fair to call such a case as this a recovery? Is it not a death from pyæmia, and a direct result of the operation? I ask this purely in the interests of surgical morality.

I am, &c.,

November 4.

F.R.C.S.

[A full report of the post-mortem would easily settle this question.—Ed. Med. Times and Gaz.]

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS, IRELAND.—At the annual general meeting of this Society, held on the evening of Wednesday, October 29, in the hall of the King and Queen's College of Physicians, Kildare-street, Dublin (Dr. Henry Kennedy in the chair), the following officers were elected for the session 1879-80:—*President*: Henry H. Head, M.D. *Vice-Presidents*: Fleetwood Churchill, F.K.Q.C.P.; Sir Dominic John Corrigan, Bart., M.D., ex-President; Alfred Hudson, M.D., ex-President; John Thomas Banks, M.D., ex-President. *Council*: J. Hawtrey Benson, M.D.; Thomas Fitzpatrick, M.D.; Arthur Wynne Foot, M.D.; Samuel Gordon, M.D.; Thomas Wrigley Grimshaw, M.D.; Reuben Joshua Harvey, M.D.; Henry Kennedy, M.B.; James Little, M.D.; Stephen Myles MacSwiney, M.D.; John William Moore, M.D.; John Mallet Purser, M.D.; Walter George Smith, M.D. *Honorary Secretary*: George Frederick Duffey, M.D.

REPORTS OF SOCIETIES.

THE CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 24.

Dr. GREENHOW, F.R.C.P., F.R.S., President, in the Chair.

(Concluded from page 516.)

CANCER OF THE BREAST FOLLOWING ECZEMA OF THE NIPPLE OF LONG STANDING.

MR. G. LAWSON read notes of this case. The patient had suffered from eczema of the nipple for four years, and during that time had been under the care of four physicians. In July, 1878, she consulted the late Dr. Tilbury Fox. The eczema then involved the skin around the nipple for an area of about one inch. She had tried all the usual remedies, and had also taken arsenic largely. At this time Mr. Lawson saw the case with Dr. Fox, and examined the breast specially to ascertain if there were any indications of cancer, but he was unable to discover any. The skin was movable over the breast, and the breast upon the muscle. There was no enlargement of the axillary glands. The eczema was relieved, but never cured. In July of this year she came under the care of Mr. Lawson. The breast was then large and hard, with the nipple much retracted, and the skin around the nipple adherent to the parts below. There was also an enlarged gland in the axilla. On the following day the patient saw Sir James Paget, and he concurred in the advice that the breast should be removed. The operation was accordingly performed, and the patient made a rapid recovery. Mr. Lawson remarked that one of the surgical questions of the day was whether we might consider intractable eczema of the nipple the precursor of scirrhus of the breast. The cases related by Sir James Paget and Mr. Butlin had established the fact that scirrhus of the breast frequently followed a condition of the skin which closely resembled eczema in its general characters. There was some doubt as to whether this so-called eczema was indeed true eczema; whether it was not rather a new growth with some of the superficial characters of eczema, but which differed from it in its microscopical structure. The important and practical question was whether, in cases of eczema of the nipple which had resisted for a length of time all treatment, we were not justified in advising that the breast should be removed in anticipation of a disease which did not then exist. In one case he had removed the greater portion of a tongue, because the gentleman had suffered from ichthyosis of that organ for eighteen years, and he had found that all the recorded cases of ichthyosis had terminated in cancer, either before or shortly after the disease had reached that age. He had also frequently excised an eye which had received a dangerous wound in anticipation of sympathetic ophthalmia occurring in the sound eye, feeling that it was better to save one eye than run the risk of losing both. The same principle of treatment, he thought, might be fairly applied to cases of intractable eczema of the nipple, if we could thoroughly establish the fact that in the majority of such cases the disease was followed by cancer.

Dr. THIN hoped soon to lay before the profession all the results of his investigations on the subject. He regarded the disease as something different from an eczema; and thought that the cancer, in such cases, preceded the eczema. The epithelial elements at the mouths of the galactophorous ducts first underwent pathological changes, whence the cancerous matter spread. Consequently, to treat a patient in this condition only for the skin affection involved the gravest error, for the disease was meanwhile making certain progress in the lactiferous vessels, progressing by sure stages to the axilla and mamma.

Mr. BUTLIN did not intend to imply by eczema a skin-disease solely and simply. He had seen four or five cases in which the nipple presented the same indications as in the one under discussion. In one case, however, there was no discharge, either from the surface or from ducts, and the organ on the affected side was less elastic and firm to the touch than that on the opposite side. Though not eczematous, still the condition of the nipple and ducts, even in this, agreed with those of the other cases. In it, only portions of epithelial structures were involved by disease; but in the others all the ducts were so affected.

Sir JAMES PAGET agreed that it might be unwise to give the term eczema to the condition of the parts, and that grave danger of a cancerous issue was involved therein. He differed from Dr. Thin on clinical grounds. He thought there were stages in which the disease was not cancer, but was curable. In one case which resisted treatment during eight months, a cure was effected in eight more, and no cancer was developed in the breast. Such cases, however, were in danger of becoming cancerous; and similarly, in continued ichthyosis, the tendency was to a cancerous disease of the tongue, although it would be wrong to diagnose cancer at the outset. In illustration of this principle, he would instance the proved possibility of cancer developing in ulcerating scars left by burns, even twenty or thirty years subsequent to the original injury. The number of cases in which cancer might appear was very large, and at present we had no accurate knowledge, either of the causes or the time which determined its growth, or of the process itself.

Mr. JONATHAN HUTCHINSON had, some years ago, contributed a paper on what he termed "the successful cultivation of cancer," for the purpose of drawing attention to the conditions favouring its development. They were now dealing with the pre-cancerous stage of cancer. He considered the term eczema correctly employed by Sir James Paget and Mr. Butlin, seeing that it admitted of a wide signification, and that the nature of the affection so called varied much. Probably, in some cases, there was simply at first a local disease of the nipple, which, disturbing the local nutrition, and setting up irritation lasting to the observed cancerous period of life, might eventuate in the production of the fatal disease. With them might be other cases in which a process more nearly allied to cancerous degeneration set in from the first. In case the eczema resisted treatment, then it was sufficiently early to initiate special precautionary treatment. Such resistance to ordinary treatment must strengthen the suspicion of cancer. He agreed with Mr. Lawson as to the advisability of an early removal of white patches on the tongue. He related that in one of his cases a patient, operated on in an early stage, was at present, after four years, quite well.

Mr. H. MORRIS cited two cases of eczema followed by cancer of the breast. The condition of the areola had existed too long not to have preceded the cancer; in one case six years. He was consequently inclined to oppose the view held by Dr. Thin. He remembered an instance of similar external disease, where there was no suspicion of cancer, in a girl aged eighteen. By her account, she had suffered from cancer "of the mouth of the breast," but no sign of the disease could be detected. Mr. Morris could not advise early removal of the diseased organ in such cases. Similarly, he considered ichthyosis did not always indicate the operation for amputation of the tongue. Out of five hundred cases of cancer seen during six years' practice, he had observed only two in which cancer of the breast had followed ulcerated nipple.

Mr. LAWSON said that in 1865, in a case of eczema which was regarded as epithelioma, treatment by zinc chloride was persisted in until the tissues of the breast became deeply touched. Two years later the patient returned with a bunch of diseased glands in the axilla, and she was now dying of true cancer.

Dr. THIN explained that the epithelium at the mouths of the ducts might be affected, and the pathological change be confined thereto. If the parts were removed at this stage, the patient might be saved. But the destruction of tissue continued if only treatment for eczema were followed out; in time, the affection spread along the ducts, and plunging into the body of the gland, irremediable mischief was set up, and a fatal termination ensued.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, OCTOBER 28.

JOHN E. ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

REPORT OF THE COMMITTEE ON SUSPENDED ANIMATION.

THE Committee appointed to investigate the subject of Suspended Animation on the comparative merits of the method at present used by the Royal Humane Society and that proposed by Dr. Benjamin Howard, of New York, for the

recovery of persons apparently drowned, reported that, owing to the difficulty which they had met with in obtaining subjects suitable for experiment, they were unable to present a final report to the Society. They had, however, compared Dr. Howard's method with that recommended by the Royal Humane Society in a series of experiments on two subjects, in order to determine by which method the greater quantity of air could be introduced into the lungs. Subject 1: Woman, aged fifty-six, moderately fat; five feet four inches in height; dead five days; no rigor mortis nor signs of decomposition. Average of first series of five experiments by Dr. Howard's method, 5.2 cubic inches; average of second series, 7 cubic inches; average of the ten experiments, 6.1 cubic inches. Average of first series of five experiments by the Royal Humane Society's method, 7.2 cubic inches; average of second series, 11 cubic inches; average of the ten experiments, 9.1 cubic inches. Subject 2: Man, aged thirty-five; well developed, very muscular; killed by accident twenty-eight hours previously; slight rigor mortis. Average of first series of five experiments by Dr. Howard's method, 6.6 cubic inches; average of second series, 8.4 cubic inches; average of the ten experiments, 7.5 cubic inches. Average of first series of five experiments by the Royal Humane Society's method, 8.2 cubic inches; average of second series, 13.3 cubic inches; average of the ten experiments, 10.7 cubic inches. The Committee are of opinion that Dr. Howard's suggestions as to the following points are very valuable, and might be adopted with advantage:—(a) The removal of fluid from the air-passages and stomach. (b) The position of the head and trunk during the performance of artificial respiration. The more fully extended position of the head, as shown in Fig. 2 accompanying Dr. Howard's rules, is preferable to that in the figure published by the Royal Humane Society, inasmuch as it secures greater patency of the superior aperture of the larynx, and is less likely to offer any impediment to the ingress or egress of air.

The PRESIDENT remarked on the necessity of keeping the glottis open in cases of sudden asphyxia from whatever cause. This was provided for in Howard's plan, but not by that adopted by the Royal Humane Society. This was especially necessary where the patient had swallowed mud or slime or sand, or in anæsthesia where there was paralysis of the tongue. By drawing forward the tongue, the slime or whatever else had accumulated might be hooked out by the finger, and this in itself was often enough to induce inspiration. If the air was not directed into the right channel, it might, by the artificial processes in use, be drawn into the stomach. The mode, too, in which people nearly drowned were usually carried was a bad one. They were laid on their backs on a stretcher, or carried by the hands and legs back downwards. It would be better if they were carried so that the head would hang forwards instead of backwards, whilst the movements of the arms would aid in opening the chest.

Mr. CLOVER said that in advanced narcosis the air easily escapes from the chest, but does not easily get back. The best plan was to make the air-passages as nearly straight as possible by forcibly elevating the chin and thrusting it backwards. There was, however, one great difficulty connected with the relaxation of the muscles of the throat; those became so relaxed that they formed a kind of valve, which prevented the ingress of air, and in this condition any attempt at artificial respiration only did harm by overfilling the heart by the inspiratory action of the chest-wall. Very little circulating air was necessary to maintain life. Even the quantity obtained on Howard's plan by the Committee—viz., seven cubic inches—was quite enough.

Mr. SAVORY was struck with the small quantity of air changed in these experiments. In their former inquiry, by Sylvester's method, the quantity changed varied from nine to forty-four cubic inches. But in these cases they must do more than get the air in; they must get the water out. On the whole these experiments tended to the advantage of Sylvester's method.

Mr. HOLMES said that we must, of course, expect a further report. But he thought that it must not be forgotten that we had to do with at least two distinct questions. The one was as to the practically best, and the other as to the handiest, inasmuch as the process must often be carried on by comparatively ignorant persons. From this point of view handiness was a great object, and he thought that Howard's plan was more easily taught. The position prescribed in

it, too, was useful for getting rid of slime, mucus, etc. He held this method, therefore, to be both practical and scientific.

Mr. HULKE had practised both. Howard's plan was good in certain respects, especially with regard to the position of the tongue and chin, but on the whole Sylvester's was better, more convenient, and sometimes more speedy.

DESCRIPTION OF A LARGE DERMOID CYST REMOVED FROM THE ABDOMEN OF A MAN.

Dr. W. M. ORD and Dr. C. BRODIE SEWELL contributed this paper. The cyst exhibited was removed, post-mortem, from the abdomen of a gentleman, a patient of Dr. Sewell. It had not occasioned much suffering, but having caused wide separation of the recti abdominis, was tapped to relieve pressure. About two pounds of liquid fat came away, but no more could be extracted. The tumour was not materially diminished. Peritonitis set in three hours after the operation, and carried off the patient at the end of five days. The tumour when removed weighed fourteen pounds and a quarter, was ten inches broad and thirteen inches long, and was filled with fat, partly in a pulpy state, partly in a great solid cake. The fat consisted almost entirely of fatty acids, with a bare trace of butyric acid. It contained numerous hairs and much epithelium. The cyst presented hairs on its inner surface and sebaceous glands of great size beneath the surface, but no sudoriparous glands or regular papillæ. The tumour was first remarkable for its great size, as compared with the ordinary size of dermoid cysts; next, it was remarkable as occurring in the male abdomen. It was so intimately related with the rectum and bladder as to lead to the inference that it had its origin in connexion with the genito-urinary organs. There was, however, no malformation of the genital organs. The formation of a dermoid cyst in the abdomen of a man might be explained—first, upon the idea of "foetal inclusion"; second, upon the idea of "developmental inclusion," such as gives rise to cysts in the track of branchial and other developmental fissures; third, upon the idea of "aberrant development," according to which deformities arise out of the persistence of embryonic structures which should in the natural way disappear or undergo complete remodelling. Applying the last idea, we may be reminded that the ovary and testis spring from one blastema, each being brought, as it grows, into communication with an excretory tube of different origin in each case. If any part of this blastema fail during development to be brought into its proper system by means of its proper communications, the part so left out, having lost its natural guidance, may be readily conceived as proceeding to irregular development. In such a case as the present, the destiny of the blastema being either ovary or testis, the fragment takes on ovarian ways, and produces a dermoid cyst as an ovary might. If developmental inclusion were the causative process we should expect the tumour to be connected with the abdominal walls. On the other hand we have been unable to find any structural aberration in the genito-urinary organs. We are left to choose between foetal inclusion and aberrant development, with an inclination to the latter founded upon consideration of similar ovarian tumours.

Dr. JOHN HARLEY thought the dermoid structures probably arose from a minute area of true skin structure retained abnormally in the embryo. These were more common in women than in men. Was there any family history as to median closure being delayed?

Dr. BRODIE SEWELL had little to add to the case as reported. One brother had had what was supposed to be empyema, but in many respects the collection seemed to resemble the abdominal one. In this case there was great and notable depression throughout in the brother. Though congenital, the tumour had till towards the end given no trouble. The umbilicus was unfolded from the first.

Mr. HULKE was not satisfied as to the origin of these tumours. They were most common about the orbit, which was apart from any normal foetal fissure. They had no connexion with the skin, but were close to the periosteum, and the orbicularis was always perfect. Parthenogenesis, except in the neighbourhood of the ovary, would not hold good. He had recorded a case where several of them were found in the liver.

Mr. SAVORY explained that his views as to parthenogenesis had reference solely to ovarian cysts.

Dr. ORD quite shared Mr. Hulke's difficulty, and would

accordingly advance no theory. With regard to ovarian cysts, he was inclined to accept Mr. Savory's views.]

MALFORMATION OF THE GENITAL ORGANS OF A MAN, WITH PERSISTENCE OF ONE OF THE DUCTS OF MÜLLER.

Dr. ORD also read this paper. The preparation exhibited had been taken from the body of a man, aged thirty-six, who died in St. Thomas's Hospital of phthisis and complications. At the post-mortem examination a large tube running from the head of the right kidney to the under aspect of the bladder attracted attention, and was supposed to be a supernumerary ureter. The skill of Mr. Stewart, curator of the Museum of the Hospital, enabled him, after a careful examination, to reject this idea and identify the structure as probably a surviving Müllerian duct. The tube beginning in a blind sac at the end of the kidney, ends, without organic connexion with any other structure, in the median line of the floor of the prostatic urethra, by a patulous orifice placed just above those of the ejaculatory ducts. The testis on the same side was undescended, being arrested in the inguinal canal; the vas deferens and vesicula seminalis on the same side were incompletely developed, but pervious; the external genital organs perfect, except as regarded the position of the right testis. A small glandular structure was found capping the right kidney, but separated from it by a fibrous septum; the gland was also in contact with the end of the blind tube. The gland had the structure of a renal organ, with evidences of contraction and degeneration. It was suggested that the tube was the right Müllerian duct arrested in an early stage of its retrogression; and that the gland represented a parallel state of the Wolffian body. The only similar case which Dr. Ord has been able to find recorded is shortly reported in the *British Medical Journal* of September 6 of this year, as having been examined by M. Remy. The subject was a boy aged six. The malformation was unilateral; the persistent Müllerian tube took much the same course, but its head was related with a number of cysts, supposed to be remains of the Wolffian body. The hydatid of Morgagni and the organ of Giraldès were both present.

Mr. SPENCER WELLS said that if he might be permitted to bring a practical point before the Society, he would mention the case of a gentleman who suffered from a large abdominal tumour. This was diagnosed to be malignant disease of a non-descended testis. It would have been removed had it been in the scrotum: why not take it away when in the abdomen? There was no great difficulty in the operation; but if he had another such case, he would not take so much trouble to remove the tunica vaginalis. The mass weighed nine pounds. Unfortunately the patient died of septicæmia. This may have been partly due to his having used thymol as a spray instead of carbolic acid.

EARLY REMOVAL OF THE DIAPHYSIS OF THE TIBIA FOR ACUTE NECROSIS.

Mr. WALTER PYE reported this case, which was that of a lad, aged nineteen, who was admitted into St. Mary's Hospital with all the signs of acute necrosis of the tibia, and with coincident necrosis of the ungual phalanx of one of the fingers. The necrosis ran a very acute course, and within three weeks of its development the diaphysis perished, almost in its entirety. The patient's condition called urgently for operative interference, and after consultation with Mr. Herbert Page, it was resolved to remove the necrosed shaft in preference to amputation at the knee-joint. The operation of subperiosteal resection, recommended by Mr. Holmes, was accordingly performed, and the whole diaphysis was removed, the periosteum being preserved by incising it along the whole of its anterior surface, and separating it where necessary from the necrosed or necrosing bone. The patient made a satisfactory and tolerably quick recovery, with the formation of a very good new tibia. He was discharged from the hospital five months after the operation, and was able to walk on the limb three months later. There was little or no shortening, and the leg continues to be a very useful and shapely one. In the remarks which accompanied the report, attention was drawn to the time in the history of the necrosis at which the bone was removed, the age of the patient, and to the ease with which the bone was removed. Photographs of the bone removed, and of the patient nine months after the operation, were shown.

Mr. CROFT thought this was hardly a case of complete necrosis of the diaphysis of the tibia, since periosteum was

found adherent and the nutrient artery was perfect. He never had seen complete necrosis of the diaphysis. Somewhere or other the periosteum was adherent, and the bone generally died in part only.

Mr. SAVORY asked why such cases might not be due to inflammation of the whole bone. Disease of the periosteum could hardly destroy the bone in its entire thickness. As regards the new bone, he would like to know whether it grew entirely from the periosteum or partly from the ends of the old bones.

Mr. MORRANT BAKER asked what were the relations of the abscess in the upper part of the tibia to the periosteum.

Mr. HOLMES believed that there were cases where the death of the bone was due exclusively to periostitis. It was often held that there was always osteo-myelitis in these cases, but he had seen cases where this was conclusively negatived. Two of these he cited. It was, however, quite true that the bone might be dead, and still the periosteum might not be entirely removed. In certain cases the bone might be renewed from the ends, but it might also be entirely produced by the periosteum.

Mr. PYE said the term "total" was not quite exact, as in some places the periosteum had to be removed, but this was from new bone. No particular cause could be assigned for the mischief, and there had been no injury. The bone grew entirely from the periosteum. The abscess was probably due to osteo-myelitis.

GRADUATES OF THE QUEEN'S UNIVERSITY, IRELAND.

—The Secretary of the London Association of the Queen's University writes:—"It would be well if the medical graduates of the Queen's University in Ireland would register as members of Convocation before the issue of a charter to the new University. By the University Education (Ireland) Act of last session, all graduates who are members of Convocation of the Queen's University at the date of the new charter, are, on complying with such conditions as the charter shall prescribe, to become members of Convocation of the new University, whilst other graduates, in order to become members of Convocation, must not only fulfil 'the conditions,' but possess 'the qualifications' to be prescribed by the new charter. It is evident, therefore, that members of the existing Convocation will be in a more favourable position than graduates as regards the Convocation of the new University. At present all graduates of two years' standing are qualified to register, and can become life members of Convocation on payment of one pound to the Clerk of Convocation."

THE STATUE OF BOURGELAT.—A marble statue of Bourgelat, the founder of the Ecole Vétérinaire, of which France is so justly proud, was unveiled on October 30, at Alfort, amidst an assemblage of more than 500 persons, comprising veterinarians and *savants* from all parts of France, under the presidency of M. Bouley, member of the Institut. Bourgelat, born at Lyons in 1712, after having some time pleaded at the bar at Grenoble, abandoned the law for zoological studies, which he pursued most earnestly, and became the friend and correspondent of most of the great *savants* of his time. With Buffon he became especially intimate, doing much to popularise his doctrines. His great merit in the eyes of posterity is the creation of the teaching of the veterinary art in France, which, prior to his time, was quite unorganised. In 1762 he founded the first veterinary school at Lyons, which soon acquired under his impulse great importance; and the school of Alfort was founded ten years later. Here Bourgelat died, surrounded by his pupils, in 1779. M. Bouley, in an eloquent address, dwelt upon the eminent services which Bourgelat rendered to the rural population of his time, who were steeped in the grossest ignorance, the procedures of magicians and sorcerers being their great resource in illness occurring among their domestic animals. "But," demanded M. Bouley, amidst the vociferous applause of his audience, "have we the right to smile at this simplicity of our ancestors—we who live at a time so 'fertile in miracles,' and what is worse, in degenerate and somewhat monotonous miracles; and which, so far from 'exhibiting the glory' of Him to whom they are imputed, only testify to the poverty of resource of their inventors and the singular weakness of mind of those upon whom they are imposed?"—*Gaz. Hebdomadaire*, October 31.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members on Oct. 30:—

Henderson, George Courtenay, M.B. Lond., University Hospital, W.C.
Smith, William Wilberforce, M.D. Heidelberg, 2, Eastbourne-terrace, W.

The following gentlemen were admitted Licentiates on October 30:—

Ashby, Thomas Harry, M.B. Toronto, Cheltenham.
Ballance, Charles Alfred, Stanley House, Lower Clapton, E.
Bradford, Cordley, Smethwick, Birmingham.
Butler, Gamaliel Henry, Westminster Hospital, S.W.
Campbell, Robert Huntly, Gilling Rectory, York.
Dalgado, Daniel Gelasio, 30, Palace-road, Lambeth, S.E.
Da Silva, Pascoal Manoel, Bombay, India.
Fischer, Carl, M.D. Würzburg, 62, Gower-street, W.C.
Fisher, Frederick Bazley, Queen's-road, Clapham-park, S.W.
Goffon, Joseph Edward, 22, Borough-road, North Shields.
Greenwood, Frederick Stowell, M.D. McGill, 149, Kennington-road, S.E.
Howell, Thomas Arthur Ives, Old Vicarage, Wandsworth, S.W.
Lithgow, Thomas George, Farnborough Station.
Robinson, George Somerville, 47, Claverton-terrace, S.W.
Sheild, Arthur Marmaduke, 88, Warwick-street, S.W.
Smith, Sydney, 54, Camden-road, N.W.
Weakley, Arthur, Forest-gate, E.
Wright, John Wellington, M.D. McGill, 149, Kennington-road, S.E.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 30:—

Breese, Thomas Thwaites, The Precincts, Norwich.
Crew, William Thomas, Park-lane, Macclesfield.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Bartlett, Benjamin Pope, Guy's Hospital.
Clatworthy, Herbert, London Hospital.
Daniell, Charles Henry, St. Bartholomew's Hospital.
Pritchard, Owen, St. Bartholomew's Hospital.
Rout, Charles, Charing-cross Hospital.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

PENTLAND, ALEXANDER, M.B., L.R.C.S.I.—House-Surgeon to the Metropolitan Free Hospital, *vice* C. R. Hall, M.R.C.S., resigned.

WARNER, FRANCIS, M.D., M.R.C.P.—Assistant-Physician to the London Hospital, *vice* Dr. Fenwick.

BIRTHS.

ARMSTRONG.—On November 2, at 198, Parrock-street, Gravesend, the wife of John C. Armstrong, M.R.C.S., of a daughter.

CHETWOOD.—On October 30, at 10, King-street, Finsbury-square, the wife of William Chetwood, M.R.C.S. Eng., of a daughter.

DANIEL.—On November 2, at 21, Thurloe-place, South Kensington, the wife of B. Daniel, M.R.C.S. Eng., L.R.C.P. Edin., L.S.A. Lond., of a daughter.

DEMPSEY.—On November 2, at 27, Charterhouse-square, the wife of Meldon Dempsey, M.D., of a son.

GALPIN.—On November 1, at Kelvedon, Essex, the wife of Richard Galpin, M.R.C.S., of a son.

OLDHAM.—On October 29, at The Grange, Bletchingley, Surrey, the wife of Charles E. Oldham, M.D., of a son.

SMITH.—On November 1, at 15, Imperial-square, Cheltenham, the wife of William Robert Smith, M.D., of a son.

MARRIAGES.

CARLETON—CARTER.—On October 29, at Newnham-on-Severn, John Shaw Carleton, L.K.Q.C.P.I., to Rose Ann, third daughter of Maurice Frederick Carter, Esq., of Newnham.

CASEY—REAY.—On August 15, at Melbourne, Philip Forth Casey, L.R.C.S.I., of Donilquin, N.S.W., to Isabella Julia Agnes, daughter of Colonel Charles Reay, Bengal Staff Corps, Jullundur, India.

CLEAVER—OATES.—On October 23, at West Derby, Liverpool, William J. Cleaver, M.B., of Sheffield, to Julia, youngest daughter of G. C. Oates, Esq., of Messina, Sicily.

FOX—MORRIS.—On November 4, at Hayes, John Henry Fox, Esq., Lieutenant Royal Engineers, to Margaret Ethel, second daughter of Thomas Morris, M.D., of Hayes, Kent.

JAMESON—SHARPE.—On October 23, at Woolwich, Thomas Montgomery Jameson, to Lena Annie Southby, youngest daughter of Alfred Sharpe, M.D.

LAW—PRICE.—On October 22, at Eastbourne, William Thomas Law, M.D., Resident Medical Officer of Brompton Hospital for Consumption, to Georgiana Charlotte Elizabeth, second daughter of Edwin Plumer Price, Q.C., Recorder of York and Judge of County Courts for West Norfolk.

PARSONS—TAYLOR.—On September 10, at St. John's, Adelaide, South Australia, H. J. D. Parsons, eldest son of Henry Parsons, Esq., of Misterton Manor House, Somersetshire, to Lucy Jane, eldest daughter of Thomas Taylor, M.D., of Taunton, late of Kensington, South Australia.

SCOTT—SYMONDS.—On August 16, at Onchunga, Auckland, New Zealand, William George Scott, M.R.C.S., to Alithea Mary, third daughter of Captain J. Jermyn Symonds, Judge, Native Lands Court.

SMITH—KENDRICK.—On October 23, at Bushbury, Charles Henry Smith, M.D., of Birkdale, Southport, to Emily Josephine, youngest daughter of David Kendrick, Esq., Oxley House, Wolverhampton.

TAYLOR—BROMILOW.—On October 30, at South Acton, Joseph Marmaduke Taylor, Surgeon-Major Royal Horse Guards, to Blanche Beatrice, daughter of the late Adam Bromilow, Esq., barrister-at-law.

DEATHS.

CHABOT, CLARA, wife of Herbert Chabot, M.R.C.S., of 12, Brunswick-road, Camberwell, on November 1.

COLLEDGE, THOMAS RICHARDSON, M.D., F.R.S. Edin., for forty-two years President of the Medical Missionary Society in China, at Lauriston House, Cheltenham, on October 28, aged 83.

CONNOR, WILLIAM, M.A., M.B., F.R.C.S.I., at Knockmaroon, St. John's-hill, New Wandsworth, on October 31, aged 75.

DAVIDSON, THOMAS, M.D., at Shaftesbury House, Bayswater, on October 31, aged 77.

DODSWORTH, FREDERICK CHRISTOPHER, M.R.C.S., L.S.A., at The Lawn, Turnham-green, on November 2, aged 75.

GRAY, CHARLES SYDNEY, fourth son of Edward Gray, M.B., C.M., at Cinnamara, Jorehaut, Assam, on September 30.

SCOTT, WILLIAM JOSEPH, M.R.C.S., at Bryn, Conway, on October 29, aged 33.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

CLAYTON HOSPITAL, WAKEFIELD.—House-Surgeon. Candidates must be registered under the Medical Act and unmarried. Applications, with testimonials, to be sent, on or before November 13, to the Honorary Secretary, John Binks, Esq.

DURHAM COUNTY ASYLUM.—Assistant Medical Officer. Candidates must be unmarried. Applications, with testimonials, to Dr. R. Smith, Durham County Asylum, Sedgfield, Ferryhill.

HOSPITAL FOR WOMEN, SOHO-SQUARE, W.—Assistant-Physician. Candidates must be graduates in medicine of some recognised University, and Members of the Royal College of Physicians, London, or must become so within twelve months of their appointment. Applications to Mr. David Cannon, Secretary, on or before November 12.

LOUGHBOROUGH DISPENSARY AND INFIRMARY.—Resident House-Surgeon. Candidates must be qualified in medicine and surgery. Applications, with testimonials, to be sent to the Secretary, William Berridge, Esq., on or before November 11.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Assistant-Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England. Applications, with testimonials, to be sent to James S. Blyth, Esq., Secretary, on or before November 26.

WARWICK COUNTY LUNATIC ASYLUM.—Junior Assistant Medical Officer. Candidates must be qualified in medicine and surgery. Applications, with testimonials, to be made early to Dr. Parsey, at the Asylum, Hatton, Warwick.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Stockport Union.—Mr. S. Beecroft has resigned the Hyde District: area 6060; population 23,025; salary £40 per annum.

Wellingborough Union.—The Wollaston District is vacant: area 9609; population 3253; salary £35 per annum.

Whitchurch (Salop) Union.—Mr. J. Bromfield has resigned the Whitchurch District: area 16,896; population 6722; salary £56 per annum.

APPOINTMENTS.

Andover.—Mr. Arthur Angell as Analyst for the Borough.
Isle of Wight Union.—Samuel Stickland, M.R.C.S., L.R.C.P. Edin., and L.S.A., to the Godshill District.

Newton Abbot Union.—Edward Fawcett, M.B. and M.Ch. Dub., to the Teignmouth District.

Wetherby Union.—Charles Philip Gibson, L.R.C.S. Eng., L.R.C.P. Edin., to the Wetherby District and the Workhouse.

Woodstock Union.—Arthur Herbert Orpen, L.R.C.S. Edin., L.K.Q.C.P.I., to the First Woodstock District.

BENGAL MEDICAL SERVICE.—Our contemporary, the *Indian Medical Gazette*, reports that Surgeon John Seton Beale died of cholera at Prome, on September 17, after a career of eighteen months in India. His death makes the ninth which has occurred in the Bengal Medical Service in 1879; Neil, Gray, and Walsh, of cholera; W. B. Smyth and A. H. Kelly, murdered; O'Donnell, Galloway, and Courtney, from disease.

WOMEN MEDICAL STUDENTS IN RUSSIA.—The medical courses for women have commenced for the winter. Of 113 women who offered themselves for the preliminary examination, 77 were successful, and of these 66 belonged to the Orthodox-Greek confession, 26 to the Jewish, 1 to the Lutheran, and one to the Roman Catholic confession. Last year there were more than 200 candidates, of whom 130 succeeded—so that the wish to attend these courses has surprisingly diminished.—*Petersb. Med. Woch.*, October 18.

THE NEW BRITISH P.M.O.—Surgeon-General T. Crawford, M.D., was expected to leave England on the 6th inst., to relieve Surgeon-General J. Ker Innes, C.B., as Principal Medical Officer to the British Forces in India.

DR. ANDREW DUNCAN.—The many friends of this gentleman will be glad to hear that a telegram has been received stating that he is recovering from the severe wounds he received before Cabul.

A ROYAL MEDICAL AUTHOR.—The Duke Carl Theodor of Bavaria, a doctor of medicine of Munich, who presided over the Naturforscher-Versammlung at its meeting in Munich in 1877, has just published a scientific essay in *Graefe's Archiv für Ophthalmologie*, entitled "Contributions to the Anatomy and Physiology of the Vitreous Body."—*Petersb. Med. Woch.*, October 18.

LADY MEDICAL STUDENTS.—Fourteen new students have joined the London School of Medicine for Women at 30, Henrietta-street, Brunswick-square, this winter session, making thirty-seven in attendance at the School and Royal Free Hospital, Gray's-inn-road. Seventy students in all have entered the School since its foundation, of whom some, having taken their diplomas, are in practice as registered medical practitioners, and others are preparing for the examinations of the University of London, and of the King's and Queen's College of Physicians, Ireland.

BALSAM OF PERU IN PRURITUS.—In a communication to the *Deutsche Med. Woch.*, No. 34, Dr. Auerbach, of Berlin, states that having, in common with so many other practitioners, found the balsam of Peru a most valuable remedy in itch, he has for some time past treated pruritus by the same substance, and with the greatest success. After the first rubbing in to the part affected great relief is obtained, and in a few days a cure results. He relates a very obstinate case, which, after resisting all kinds of treatment for years, was speedily cured by the balsam.

ON the evening of the 30th ult. the new session of the Guild of St. Luke was inaugurated at the rooms of the Medical Society of London, with an address on the work and objects of the Guild by its Provost, Dr. Alfred Meadows. The Guild is a medico-religious association, and now numbers nearly two hundred members. Its meetings are held monthly, and after a short service adapted from ancient English liturgies, scientific papers are read and discussed. Applicants for admission, besides being recommended by two members, must declare themselves to be either students or practitioners of medicine. In concluding his address the Provost remarked that "what they desired was, that their science should be as true as their religion, and their religion as true as their science"—a sentiment at which no one will be inclined to cavil.

WOMEN AS MEMBERS OF MEDICAL SOCIETIES.—The *Boston Medical Journal* (October 9) reports with regret that the Council of the Massachusetts Medical Society has resolved to admit women as members. "The final vote was passed by a small majority, a large number voting in the affirmative, not that they believed in the desirability of female practitioners, but rather from a disinclination to oppose the movement. The arguments in favour of it seem to have been based upon a misconception of the nature of the objections influencing the minds of the opposition. Some of the speakers were at great pains to point out that the number of women who are now in active practice is so great, and their standing in the profession is such, that we are no longer justified in withholding from them the advantages of membership. These arguments are freely used as convincing proof that a change is desirable, and all opposition is stigmatised as based upon narrow-mindedness and jealousy. The real point at issue is systematically ignored. In this progressive age we are expected to overlook any little scruples of morality or decency which the etiquette of a bygone time has thought necessary as a restraint to the sexes in their social intercourse. Enshrouded in her mantle of science, woman is supposed to be endowed with power to descend from that high pedestal upon which we men have always placed her, and to mingle with us unscathed in scenes from which her own modesty and the esteem of the other sex have hitherto protected her. We do not believe it possible that she can frequent our public meetings or lecture-rooms, where certain topics are discussed without breaking through barriers which decency has built up, and which it is for the interest of every lady and gentleman to preserve."

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.—The next quarterly meeting will be held at 53, Berners-street, W., on Wednesday, November 12, at 8.30 p.m. Dr. Wilkie Burman will read a paper "On the Separate Care and Treatment of Acute and Curable Cases in Asylums; with Proposals and Suggestions for a Detached Hospital, for special purposes, in connexion with every large Public Lunatic Asylum." Dr. Hack Tuke will exhibit "a brain preserved by Giacomini's method."

THE METROPOLITAN ASYLUMS DISTRICT BOARD.—At the usual fortnightly meeting of the Metropolitan Asylums District Board, held on Saturday last, a letter was read from the Hackney District complaining of the closing of Homerton Small-pox Hospital, by reason of which patients had to remain in their own homes or else be removed to Deptford. The letter suggested that it would be advisable to keep at least some portion of the Hospital available for the reception of Hackney small-pox patients. After some discussion, the letter was referred to the Homerton Hospital Committee. Surgeon-General Bostock, C.B., for the Stockwell Hospital, stated that there were but eight cases of small-pox in the one side of the asylum, and as scarlet fever cases were increasing, they recommended that enteric fever cases should be entered in the wards disinfected, in order to provide separate wards for the influx of scarlet fever cases. The reports from the small-pox asylums show that during the fortnight there had been fourteen fresh cases of small-pox only admitted to the hospitals. There had been 4 deaths; 17 patients who had recovered had been discharged; and the number remaining was 38, viz., 8 in Stockwell, 9 in Fulham, and 21 in Deptford. At Stockwell, 54 fever patients had been admitted during the fortnight, 11 had died, and 32 had been discharged; leaving 136 scarlet fever patients, 28 enteric fever cases, and 5 typhus cases. At Homerton, 47 new fever cases had been admitted during the fortnight, 8 had died, and 61 had been discharged; leaving 115 scarlet fever cases and 7 enteric fever cases. There are at the present time 251 scarlet fever cases, 120 enteric fever cases, and 5 typhus fever cases in charge of the Board.

THE NASAL DOUCHE.—Dr. Seiler observed at the Philadelphia Medical Society (*Phil. Med. Times*, August 30) that many practitioners had given up the use of the douche in the treatment of diseases of the nasal cavity, because they had found inflammation of the middle ear and Eustachian tube as well as other unpleasant consequences were produced. Still, such cases were very rarely met with by himself and others who were in the habit of frequently resorting to the douche; and he believed that the effects in question were due to want of attention to certain rules for the use of the nasal douche, which, unfortunately, were not generally known or appreciated by the profession. These rules are—1. That the liquid used should be of the temperature of the body. 2. That it should be of the same specific gravity as the serum of the blood, to prevent osmosis (a liquid of such density can be easily obtained by dissolving fifty-six grains of common salt in a pint of water); and 3. That the bottom of the vessel should not be elevated above the forehead of the patient, as otherwise the pressure is too great, and forces the liquid into the frontal sinuses. He gives preference to a douche formed by a plain tin cup with a tube attached to the bottom, which is effective, and at the same time so cheap as to be within reach of the poor. Dr. Cohen observed that in his experience the difficulties following the use of the douche are generally due to using the water too cold. Patients also should be instructed not to swallow while using the douche, as the liquid may be forced into the open Eustachian tube and the middle ear. He uses the douche not for the application of medicinal substances, but simply for cleansing.

THE LATE MR. J. C. COPLAND.—At a preliminary meeting held at the house of Dr. Semple, on the 29th ult., it was resolved to raise a subscription to be presented to the widow of the late Mr. James Charlesworth Copland. Mr. Copland was the author of the abbreviated edition of the well-known "Copland's Medical Cyclopædia," and was a nephew of that distinguished physician and lexicographer. He served as a surgeon in the Crimean War. He was afterwards a member of the Court of Examiners of the Society of Apothecaries, and was rapidly making a name in medical literature, when he was attacked with an intestinal affection,

and after a few hours' illness was cut off in the prime of life on September 18 last, leaving a widow and five children almost unprovided for. Dr. Semple was requested to act as treasurer, and Mr. Arthur Norton as secretary. The following donations were announced:—

John S. Stocker, M.D.	...	...	£10	0	0
Algernon C. W. Norton, M.D.	...	...	10	10	0
Arthur T. Norton, F.R.C.S.	...	...	5	5	0
R. H. Semple, M.D., F.R.C.P.L.	...	...	2	2	0
W. F. R. Burgess, M.D.	...	...	2	2	0
J. C. Thorowgood, M.D., F.R.C.P.L.	...	...	2	2	0
Stephen H. Ward, M.D., F.R.C.P.L.	...	...	2	2	0
John Randall, M.D.	...	...	1	1	0
Thomas R. Wheeler, F.R.C.S.	...	...	2	2	0
Henry Bullock, F.R.C.S.	...	...	2	2	0
Robert Fowler, M.D.	...	...	2	2	0
Charles Taylor, M.D.	...	...	2	2	0
Joseph S. Lavies, M.D.	...	...	1	1	0

Subscriptions may be forwarded to the Treasurer, 8, Torrington-square, W.C.; or to the Secretary, 6, Wimpole-street, Cavendish-square, W.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Nemo.—It is a mistake on the part of our contemporary. The late Mr. Callender was not an examiner at the College of Surgeons.

Mr. Howship.—No Hunterian Oration will be delivered next year at the College of Surgeons. Saturday, February 14, will be the anniversary of the birth of Hunter in 1728.

A Worthy Example.—The amount allowed the Mayor of Wilton, in Wiltshire, for the usual installation dinner, the present Mayor has appropriated between the Salisbury Infirmary, the Herbert Convalescent Home, and the Wilton charities.

F.R.C.S. Eng. (by Exam.), Plymouth.—The annual election into the Council will take place in July next. There are 1293 Fellows of the College, and 15,832 Members, making a total of 17,065. There are 981 Licentiates in Midwifery and 457 Licentiates in Dentistry.

A Cabby's Friend.—According to a statement recently publicly made by Sir Edmund Henderson, there are over a thousand teetotalers among the London cabdrivers. Sir Edmund also stated that the people in London spent £10,000 daily in cabs, or between three and four millions yearly.

Thomas Guy.—There is a portrait of John Belchier in the Council-room of the College of Surgeons. In his thirtieth year he succeeded Craddock as Surgeon to Guy's Hospital. He respected the name of Guy almost to adoration, observing that no other man would have sacrificed £150,000 for the support of his fellow-creatures. He was buried in the Hospital.

H. F. S.—In 1297 Dante enrolled himself in the Company of Physicians and Apothecaries, the Sesta of the Arti Maggiore, to enable him to take office under the Republic; but it seems probable that, in the capacity of Ambassador to Carlo II. of Naples, he had been employed by the State as early as 1295. Dr. Barlow states he held the office of Prior from June 15 to August 15, 1300.

Localised Legal Sanitary Powers for Preston.—The Sanitary Committee of the Town Council of Preston has recommended that body to apply to Parliament in the next session for powers enabling them to require notices to be given in cases of infectious disease, the closing of schools, etc., in the like case, to erect temporary hospitals, and to control the situation of closets, slop-stones, and sink-pipes.

Mushrooms.—A Paris correspondent writes:—"A number of deaths from eating poisonous fungi for mushrooms have occurred lately. In one place a family composed of five persons—grandfather, father, mother, and two children—died from this cause on the 26th ult. An agent, his wife, and daughter have expired at another place from the same cause; and also a lady and her maid at St. Clément les Places."

Unfounded Allegations against an Orphans' Home.—An inquest has been held at Jersey on the body of a girl nine years old, who died in the workhouse after removal from the Orphans' Home. There had been considerable public feeling against the Home, the medical officer of the workhouse, it is stated, having certified that deceased had died from starvation, and that on her admission she was covered with vermin. The inquiry showed that death had resulted from disease of the lungs of long standing; and the jury found that the charges of neglect and insufficiency of food were totally unfounded.

"Vesalius."—To the late Professor Partridge, of King's College, is the credit due for the discovery of the murder by Bishop and Williams in 1831, when he was Demonstrator of Anatomy in that institution. You will find particulars in *Household Words*, No. 419, April 3, 1858. The evidence on the Anatomy Bill will give you full information on the subject; see also Bransby Cooper's "Life" of his uncle, Sir Astley Cooper. The last man executed for murder whose body was given to the College of Surgeons was Smethurst, of Oxford-street, who, in setting fire to his house for the sake of the insurance on it, sacrificed the lives of two young ladies lodging there.

Wines from the Touraine.—We have received the following note from our wine critic, in reference to Dr. Baines' letter in our last, on the wines of Touraine:—"Dr. Baines' experience of the wines of Touraine has been unfortunate; so was my own, fourteen years ago. In the year 1866 I received a parcel of wine from Tours which was ill-made, or ill-cared for, and went wrong, but nothing can now exceed the niceness, soundness, and purity of the Bourgueil and Chinon sent over by Messrs. Elphinstone. As for the white sparkling wines, they have gained a place in popular favour which they are not likely to lose. The *Saturday Review*, in a late article on 'County Balls,' speaks approvingly of the cheap sparkling wines which may be had for evening parties. Fourteen years ago American cheese was rank and strong, and not to be compared to English cheese. Increased demand and increased care in manufacture have made a wide difference now in its favour. No wine is likely to be good, the demand for which is small, intermittent, and fitful. Dr. Baines may rest assured that the Bourgueil wines, if we are to judge by the samples we have received, are retaining a uniform excellence of character, answering to the increased care and skill expended by Messrs. Elphinstone in their cultivation."

Spread of Infection: Culpable Indifference.—Dr. Rygate, the Medical Officer of Health, reported to the last meeting of the Vestry of St. George's, East, that during the previous fortnight scarlet fever had again increased in the parish, the number of cases under his notice having risen to thirty-four. The spreading of the disease he attributed to the utter indifference of mothers of infected children. The inspector found eight children going to the schools from an infected house. He had given information to the various schools where thirty children living in infected houses were scholars. Measures to be taken to secure the disinfection of the bedding and clothing of families suffering from the fever were considered by the Vestry.

Horses left Unattended in the Streets: a Fatality.—An inquest was held by Dr. Hardwicke, the Coroner, at Paddington, recently, on the body of a man who died from injuries sustained by a runaway horse and a van. The carman had left the horse in a street in Paddington, close to the kerb, while he went into a house for some linen for which he had called. The horse bolted off at a rapid pace, smashed a carriage, dangerously injured a coachman, and killed the man on whose body the inquest was held. A verdict of "accidental death" was returned, the jury adding that "the police ought to make a regulation about the leaving of horses and carts unattended; and that the wheels of carts or vans should be chained or locked before the drivers left them." The most likely preventive against similar accidents would be the enforcement of a regulation that horses and carts should never be left in the streets unattended but always in the care of some person. The present regulations affecting street traffic are deplorably defective.

A Case deserving Assistance.—A case of some hardship, and which evidently was deemed as such, by the way it was ultimately dealt with by the Guardians, was brought before the Chelsea Guardians at their meeting last week. A man who, it was alleged, had chicken-pox, was removed to the small-pox hospital by order of one of the medical officers, and was detained there eleven days, and then discharged, with a certificate that his ailment had been chicken-pox only. He found on his discharge that his home had been broken up, and that he had lost his situation. He had made a statement, which was to the effect that he was told that if he did not get into the ambulance for conveyance to the small-pox hospital "he would be taken on a warrant." He had not subsequently succeeded in obtaining any employment, notwithstanding he had a good character from previous employers. The Vestry had paid him £1 for damage to his goods, and he had received some small assistance from the local relief societies. A guardian thought substantial relief should be given, and moved that the Board allow him £5. The Chairman did not put the motion, as they had no authority in law to make such a payment. Ultimately the matter was left in the hands of the relieving officer.

Stimulants in Workhouses.—The quantity of stimulants consumed in the workhouse infirmary was the subject of a lengthy discussion lately by the Luton Board of Guardians. For some time complaints had been made in the matter, and in consequence a committee was appointed to investigate it. Their report now showed that the eighty or ninety patients had during the quarter ending Michaelmas last consumed ten and a half barrels (thirty-six gallons each) of stout, eight barrels of ale, twenty-two gallons of brandy, nineteen gallons of gin, and two gallons of wine. This quantity, it was estimated, would give about seven gallons of liquor to each patient per quarter. The Master's books showed that every ounce of alcohol and pint of beer had been served out by order of the medical officer, who, in reply to questions put by the Guardians, said he only ordered stimulants in cases where he thought they were absolutely necessary. The cost to the Board is about £300 per annum. The medical officer's attention was called to the fact that the use of stimulants had been discontinued in other unions, but he replied that he could not undertake the management of the infirmary without them.

COMMUNICATIONS have been received from—
Dr. W. R. GOWERS, London; Mr. TEEVAN, London; Dr. SHUTTLEWORTH, Lancaster; Mr. F. J. B. QUINLAN, Dublin; Mr. J. HOWELL, London; THE HONORARY SECRETARY OF THE QUEEN'S UNIVERSITY ASSOCIATION; Mr. JOHN BIRD, London; THE SECRETARY OF THE ROYAL COLLEGE OF PHYSICIANS, London; Professor SPENCE, Edinburgh; Dr. H. RAYNER,

Hanwell; THE REGISTRAR OF APOTHECARIES' HALL, London; Dr. SKEMPLE, London; Dr. ALLEN STURGE, London; THE HONORARY SECRETARY OF THE LONDON SCHOOL OF MEDICINE FOR WOMEN; Mr. NELSON HARDY, Dulwich; THE REGISTRAR-GENERAL, Ireland; Dr. GILLESPIE, St. Thomas's Hospital, London; Mr. R. CLEMENT LUCAS, London; Dr. E. I. SPARKS, Mentone; THE SECRETARY OF THE ROYAL INSTITUTION OF GREAT BRITAIN; Dr. FREDERICK TAYLOR, London; Mr. E. HAWKE, Chard; Dr. WADHAM, London; THE DEAN OF THE DENTAL HOSPITAL, London; Dr. RUSSELL, Birmingham; Dr. J. W. MOORE, Dublin; THE SECRETARY OF ST. BARTHOLOMEW'S HOSPITAL; THE SECRETARY OF THE SHEPHERD MEMORIAL FUND; THE SECRETARY OF THE ROYAL COLLEGE OF SURGEONS, London; Mr. D. COLQUHOUN, London; Dr. F. DE HAVILLAND HALL, London; Mr. J. CHATTO, London; THE SECRETARY OF THE MEDICAL AND CHIRURGICAL SOCIETY, London; Mr. T. M. STONE, London.

BOOKS AND PAMPHLETS RECEIVED—

Morbid Fear as a Symptom of Nervous Disease—Quarterly Return of Marriages, Births, and Deaths—Neurasthenia, with Remarks on Treatment, by Geo. M. Beard, A.M., M.D.—Syllabus of Lectures on Physiology, by Dr. Burdon Sanderson—Strangeways' Veterinary Anatomy, second edition, by J. Vaughan, F.L.S., F.Z.S.—Practical Surgery, by J. Ewing Mears, M.D.—Lunacy Reform: Historical Considerations, by E. C. Seguin, M.D.—Sanitary Report on the Wandsworth District for 1878—Gas Furnaces, etc.—Tariff of Medical Fees.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Louisville Medical News—Nature—El Siglo Médico—Rèvue Médicale—Boston Medical and Surgical Journal—American Bookseller—Imports and Exports—Journal of Otology—The Veterinarian—The Sunday at Home—Boy's Own Paper—Monthly Homoeopathic Review—Edinburgh Monthly Journal—Indian Medical Gazette—Archives Générales de Médecine—The Leek Times—Glasgow Medical Journal—Giornale Internazionale delle Scienze Mediche—House and Home—Therapeutical Society of New York—The Western Daily Mercury—North British Daily Mail—Rivista Sperimentale di Freniatria—The Obstetrical Journal—The Peterborough and Huntingdon Standard—The Practitioner—L'Union Médicale d'Orient.

APPOINTMENTS FOR THE WEEK.

November 8. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

10. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.
MEDICAL SOCIETY OF LONDON, 8½ p.m. Mr. Richard Davy, "Osteotomy of Femur to rectify Distortion following Morbus Coxæ." Mr. Fisher, "On Lateral Curvature of the Spine and the Jacket Treatment."

11. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopaedic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Mr. Lawson Tait, 1. "On a Second Successful Case of Gastrotomy in Extra-Uterine Pregnancy"; 2. "On a Case of Cholecystotomy performed for Dropsy of the Gall-Bladder, due to the Impaction of a Gall-Stone." Mr. Henry Morris, "On Two Cases of Carcinoma of the Breast preceded by so-called Eczema of the Nipple and Areola." Mr. John Gay will show Two Specimens of Stricture of the Rectum removed during life.

12. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.
HUNTERIAN SOCIETY (London Institution) (Council Meeting, 7.30 p.m.), 8 p.m. Mr. Gilbert, "On a Case of Fever." Dr. Pye-Smith, "On the Treatment of Internal Aneurism."

13. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

14. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

CLINICAL SOCIETY, 8½ p.m. Dr. Crocker, "A Case of Congenital Sebaceous Disease of the Scalp." Mr. Spencer Watson, "A Case of Acute Ophthalmitis affecting both Eyes; Treatment by Rapid Mercurialisation and the Instillation of Duboisin." Surgeon-Major Alcock, "A Case of Perforating Wound of the Lung." Mr. Norton, "A Case of Removal of the Frontal Bone, Left Wing of Sphenoid, Ethmoid, large part of the Superior Maxilla, and one Eye, with Complete Restoration to Health (patient exhibited)." Dr. Goodhart will exhibit a Case of Unusual Development of Keloid in Small-pox Scars. Mr. Balmanno Squire will exhibit a Case of Port-Wine Mark cured at Two Operations by Linear Scarification; also a Calotte after use in the Treatment of Ringworm.

QUAKETT MICROSCOPICAL CLUB (University College), 8 p.m. Meeting.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 1, 1879.

BIRTHS.

Births of Boys, 1370; Girls, 1328; Total, 2698.
Average of 10 corresponding years 1869-78, 2416.0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	768	733	1501
Average of the ten years 1869-78 ...	761.2	712.6	1473.8
Average corrected to increased population ...	...	...	1577
Deaths of people aged 80 and upwards ...	...	...	46

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West	561359	...	6	10	2	2	1	3	1	4
North	751729	...	9	16	4	7	...	10	...	4
Central	334369	...	9	5	3	2	...	2	1	3
East	639111	1	11	13	2	10	2	4	...	7
South	967692	...	7	25	4	16	1	6	1	12
Total	3254260	1	42	69	15	37	4	25	3	30

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	29.980 in.
Mean temperature ... ..	...	46° 6'
Highest point of thermometer ... ..	...	57° 9'
Lowest point of thermometer ... ..	...	33° 1'
Mean dew-point temperature ... ..	...	43° 5'
General direction of wind ... ..	...	E.N.E.
Whole amount of rain in the week ... ..	...	0.06 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Nov. 1, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Nov. 1.	Deaths Registered during the week ending Nov. 1.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		In Inches.	In centimetres.
London	3620368	48.0	2698	1501	57.9	33.1	46.6	8.12	0.06	0.15
Brighton	105608	44.9	34	46	57.0	38.8	46.6	7.78	0.01	0.13
Portsmouth	131821	29.4	78	35	58.0	43.5	49.2	9.55	0.48	1.22
Norwich	85222	11.4	61	36	56.0	34.0	46.5	8.06	0.04	0.10
Plymouth	74293	53.3	36	22	56.5	41.2	48.4	9.11	1.27	3.23
Bristol	209947	47.2	155	84	...	...	...	...	...	...
Wolverhampton	75100	22.1	56	24	51.9	35.0	44.4	6.89	0.08	0.20
Birmingham	388884	46.3	300	156	...	...	...	...	...	...
Leicester	125622	39.3	102	50	54.5	34.0	45.9	7.72	0.07	0.18
Nottingham	169396	17.0	98	69	54.2	32.2	45.6	7.56	0.09	0.23
Liverpool	538338	103.3	429	266	52.8	35.1	44.6	7.01	0.34	0.86
Manchester	361819	84.3	280	171	...	...	...	...	...	...
Salford	177849	34.4	145	75	...	...	...	...	...	...
Oldham	111318	23.9	69	35	...	...	...	...	...	...
Bradford	191046	26.5	128	78	51.0	34.8	43.1	6.17	0.06	0.15
Leeds	311860	14.5	236	146	52.0	32.0	43.6	6.45	0.02	0.05
Sheffield	297138	15.1	205	136	50.0	31.0	41.8	5.45	0.17	0.43
Hull	146347	40.3	127	63	...	...	...	...	...	...
Sunderland	114575	41.4	64	46	56.0	36.0	45.2	7.33	0.02	0.05
Newcastle-on-Tyne	146948	27.4	99	64	...	...	...	...	...	...
Edinburgh	226075	53.9	170	70	50.4	29.0	40.9	4.94	0.05	0.13
Glasgow	578156	95.8	385	159	53.3	31.0	43.2	6.22	0.00	0.00
Dublin	314666	31.3	200	185	54.8	33.5	46.4	8.00	0.15	0.38
Total of 23 Towns in United Kingdom	8502896	38.6	6205	3517	58.0	29.0	45.1	7.23	0.18	0.46

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.98 in. The lowest reading was 29.72 in. at the beginning of the week, and the highest 30.10 in. on Tuesday.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

ON HYDROPERITONEUM.

By J. MATTHEWS DUNCAN, M.D., LL.D.,

Physician-Accoucheur and Lecturer on Midwifery at St. Bartholomew's Hospital.

FLUID, yet not blood nor pus, may be found in large or in small quantity in the peritoneal cavity, in cases of burst ovarian cysts; in cases of ascites; and in cases that I shall particularly dwell upon to-day, to which I restrict the name of "Hydroperitoneum." At one time ovarian cystoma was confounded with other abdominal dropsies, as one of its names indicates. I think it is now quite necessary to make a further discrimination among cases that are generally called ascitic. The word "ascites" may be left for those dropsies which do not depend upon disease of the peritoneum itself—such, for example, as depend frequently upon disease of the liver or of the heart. Quite separate from these there is a class of cases which I call "hydroperitoneum," in which there is no disease discovered, beyond the conditions of the peritoneum itself, to which the collection of fluid can be referred. As gynecologists we are specially interested in collections of fluid in the peritoneal cavity, but you are not to suppose that analogous collections of fluid do not occur. They are found in the thorax—hydrothorax; in the brain—hydrocephalus. Indeed, almost all the forms of hydroperitoneum that I shall speak of to-day are frequently accompanied by hydrothorax.

Hydroperitoneum and hydrothorax are frequently observed in children and in young people, and have been described; there being no disease but the collection of serous fluid in these serous cavities. Hydrothorax is most frequently observed in children and young people, probably because it is most easily diagnosed, as you can readily comprehend and will better understand as this lecture progresses. In adult women, as occasionally in pregnancy, and not rarely in ovarian dropsy, cases of simple hydrothorax occur. I have at this moment under my care the case of a very delicate pregnant woman who has hydrothorax—a collection of fluid in one side of the chest, which is evidently not of pleuritic origin, and is connected, as far as I can tell, merely with the delicate condition of her health.

This collection of serum in the peritoneal cavity has been the subject of very interesting illustration experimentally. I do not know of experiments which can illustrate the production of effusion of watery fluid from the peritoneum, but we see plenty of examples, in disease, of the extremely rapid accumulation of thin watery fluid in the peritoneal cavity. On the other hand, very interesting experiments can easily be made to show the rapidity of the absorption of fluid by the peritoneum; and to such I merely refer, saying that injection of large quantities of water into the peritoneal cavities of some of the lower animals—as of the dog—has often been done, and the water has been found to be absorbed in a very remarkably short time. These two facts are necessary for you to remember in order to understand the rapid variations in cases of hydroperitoneum, especially in the simple hydroperitoneum that I shall presently describe to you at length.

What is the nature of the fluid that is effused? When the case is simple, without any inflammation, it is an albuminous fluid, the albumen being of moderate amount. It is of a low specific gravity, which may be stated generally about 1008 to 1015; it offers no clot on standing; and under the microscope the sediment shows no pus nor blood, but merely endothelial products. This is a very vague statement, and it is supplemented by this—that in these cases there may be every degree of irritation of the peritoneum, on to the condition called chronic peritonitis; and as you have the irritation of the peritoneum increasing, you have the fluid becoming more dense, more albuminous, and generally presenting a clot when it is allowed to stand. The clot that it presents is a translucent or cloudy, flocculent, soft clot. It is not like the clot of coagulated blood, nor like the clot you see on boiling any albuminous fluid; it is much softer and more translucent. This clot, I have said, is not observed in the simplest cases. In the simplest cases you have only a thin serum; but as cases advance in amount of irritation or inflammation, so you have the qualities

coming that I have described, and you may have then under the microscope pus corpuscles found in the sediment in small quantity.

With these preliminary remarks I shall describe to you this condition of simple hydroperitoneum as a disease not rarely found in women—I think commoner in old women than in women during the child-bearing period of life—and found as the only physical indication of disease; the only adjunct to it being that the women are always in what may be vaguely called bad or depraved health. When the fluid in the peritoneum is in small quantity, it frequently comes unexpectedly and disappears unexpectedly. When it is in a large quantity it is liable to no such rapid variation: I am not aware that it spontaneously and rapidly disappears, but many cases are recorded, which were probably of simple hydroperitoneum, and where spontaneous cures, or cures after repeatedappings, took place; and I have seen such cases. As an illustration of large hydroperitoneum I shall read to you a case which occurred lately in "Martha":—

"A. O., aged nineteen, unmarried; catamenia regular; general health not the cause of any complaint; has no pain. Seventeen months before admission to the hospital she observed enlargement of the belly, and this has gone on increasing ever since. The abdomen is half-barrel shaped, measures in circumference at umbilicus thirty-five inches and a quarter; presents everywhere distinct fluctuation; is dull on percussion except in the right flank, where resonance can be made to shift its position. Digital examination per vaginam (both before and after paracentesis) discovers nothing abnormal. Pulse and temperature normal. Tongue moist, clean, reddish. Apex of right lung presents some dullness on percussion, prolongation of expiration, and increased vocal resonance. Urine 1020, acid; trace of albumen. During ten days after admission the circumference of abdomen increased an inch and a quarter. Paracentesis was now performed, and fourteen pints and a half of clear straw-coloured fluid drawn off; specific gravity 1009; contains a considerable quantity of albumen; no clot forms. After tapping, girth twenty-six inches and a quarter. Dullness in flanks not absolute. Discharged in a comfortable state eighteen days after the tapping, about six months ago. This patient has returned since dismissal, and the abdomen is found to be slowly refilling. She said she would come back, and it is probable she has not again been tapped as yet."

Here you have a case where no disease is discovered but the hydroperitoneum. The examination of the woman's chest and her outward appearance indicate that she is a delicate and unhealthy woman; but we have from the histories of analogous cases reason to believe that there is nothing further in this case than what I have narrated. Lapse of time, in this example, removes the suspicion of malignant disease, which is a frequent cause of a form of hydroperitoneum.

Before I pass from this case I direct your attention to a curious point in its history. After paracentesis she required catheterism for two days, and it appears to me extremely natural to attribute this need for catheterism to the condition of the belly, suddenly emptied of an enormous quantity of fluid, and thus probably presenting a state of negative pressure which prevented her evacuating the bladder. The urine, accumulating in the organ, contributed to diminish this unnatural state of negative pressure. It was not passed spontaneously for two days, and, when it was drawn off, the bladder was probably not completely emptied. A very remarkable case occurred lately in "Martha," in which a similar explanation of a rare phenomenon is suggested.

A woman was almost moribund from suppurating ovarian dropsy, which it was considered proper not to remove. The post-mortem examination showed that this decision was just. In order to give her relief during the last day or two of her life, she was tapped. She was greatly relieved, but sank in about two days after the operation. In her peritoneal cavity, behind the uterus, there was found a large quantity of clotted blood. For this clotted blood no source could be discovered, and it is natural to suppose that it came from the uterus through a Fallopian tube, and that it was attracted to the peritoneal cavity by the condition of negative pressure in the abdomen produced by the rapid emptying of the immense quantity of fluid that was drawn off from the ovarian dropsy. These particulars have no bearing upon the subject of this lecture, but they are so interesting that I have interpolated them.

Now, how are you to diagnose a small quantity of fluid in the peritoneum? In the case of a small quantity of fluid in the thorax you have a greatly easier task, for reasons that the youngest of you who have practised auscultation and percussion can easily understand. The diagnosis of a small quantity of fluid in the peritoneum is based on the study of the mode in which fluid accumulates in the belly. If a woman is lying on her back (as she almost invariably is when you subject the abdomen to examination), and if there are no intestinal adhesions, fluid accumulates first in the flanks, and then as it increases in quantity it accumulates in the lower part of the abdomen. When there is only a small quantity accumulated, there is not absolute dulness in the flanks or in the lower part of the abdomen. In both situations, if you press your finger firmly before percussing, you can, when the fluid is small in amount, find resonance—not tympanites. It is only after the fluid has accumulated to a much greater extent that you have absolute dulness; and absolute dulness is generally first to be found in the lower part of the abdomen. It is there that the accumulation first becomes sufficient to produce absolute dulness, however deeply you percuss.

You have in a case, such as the one that I have read, the opportunity of verifying these facts and learning this diagnosis; for you are quite sure that there is fluid left in the woman's belly after you have tapped her; and you know, what the history of the case proves, that the fluid is gradually accumulating, and you can watch it from day to day as it accumulates.

It is of importance that you should know all this, because it is of great importance that you should find out every abnormal physical condition of a patient; and one of them, which is extremely important, and, as I have told you, has a right to constitute a disease, is the collection of fluid in the peritoneal cavity, in small quantity or in large. When the fluid is in small quantity, you have the following points to attend to in diagnosis; and I will only name them, because it is vain to describe them at length:—

Firstly: The peculiar feeling of an abdomen which contains fluid.

Secondly: The still better known feeling of the fluid if it is in a large mass or quantity in one space; the feeling of the fluid, often called feeling fluctuation, being a different thing from the feeling of the abdomen that contains fluid, and which I have named as the first point.

Thirdly: The percussion sound, which is dull comparatively where the fluid is lying in small quantity, dull absolutely where it is in large quantity. It is generally, even in cases of very small collection, easy to make out a horizontal line, limiting comparative dulness below and greater resonance above, indicating how high the fluid has risen in the abdomen.

Fourthly: You make the resonant area vary by changing the woman's position.

Fifthly: When the collection is small you have no fluctuation. You are not to expect it. Fluctuation does not come until there is a large accumulation and a certain amount of tension.

Now, with these I shall contrast the signs of a large hydroperitoneal collection; and the signs here are true, whether there is a tumour in the midst of this collection or not. It is not an uncommon thing to make a diagnosis of this kind: "This woman has a large collection of fluid in her belly; whether there is anything more or not I cannot tell until I have drawn off this collection of fluid." We have had several cases in "Martha," in which, after drawing off the hydroperitoneal collection, we found that there was lying in the fluid a comparatively small tumour, ovarian or fibrous. The diagnosis of a large quantity of fluid is made by the educated hand feeling the abdomen; by a distinct feeling of fluid; by dulness on percussion, which, where the fluid is alone and in large quantity, is absolute, even with deep pressure; but which is not absolute when you press deeply on those parts where the bowels naturally float, as about the flanks and the umbilicus. Then you have fluctuation—an invaluable sign, because an infallible sign, of the presence of fluid. Then you have, in the cases that we are considering, the fact that the fluctuation is to be felt where there is resonance on percussion. A beautiful case illustrating this is in "Martha" at this moment. Unless some very rare condition exists, where you have fluid indicated by fluctuation, and the bowels indicated by resonance on percussion, both together,

you may be certain that the fluid is a hydroperitoneal collection. The abdomen in a case of this kind maintains no definite shape; it is rounded, barrel-shaped, and frequently flattened a little. The diagnosis of a large quantity of fluid, where there are no adhesions, is a very easy matter if you attend to the points I have just enumerated to you.

Now, I have told you that in cases of hydroperitoneum you may have irritation or inflammation on to the stage called chronic peritonitis. In cases of chronic peritonitis there is frequently great difficulty in diagnosing the hydroperitoneal collection, because there is frequently cohesion, and, still more important, tucking up, of the bowels by adhesion, and also the agglomeration of lengths of the bowels into hard lumps. These conditions, with hydroperitoneum, often produce such an exact resemblance to a cystic collection that it is very difficult to diagnose by any method of examination; and I have often told you that difficult diagnosis would frequently be better described as impossible diagnosis. In other words, you are left in doubt. Now, if you think of a case of a collection of fluid in the belly, with the bowels pressed by the fluid upwards in the same directions as a pregnancy or a large fibrous tumour or ovarian dropsy presses them, and the fluid as enclosed by adhesions, you can see that you have the physical conditions of a surgically unilocular ovarian dropsy; and the difficulty is, as I have indicated, increased often by feeling hard masses, consisting of bowels glued together in a peculiar way. By changing the position of the woman and re-examining repeatedly, attending to her history, and going over the peculiar signs that I have described to you as indicating a large quantity of fluid, you can frequently arrive at a correct decision. You must take care not to be misled, as I have known repeatedly happen, by feeling, after tapping, hard masses which are supposed to be unruptured or untapped ovarian masses. These hard masses in a case of chronic peritonitis sometimes disappear, the adhesions being removed. The woman, in fact, gets cured, and of course in that case all the difficulty of diagnosis is removed, and what may at first have been a puzzle is explained.

When a case of ovarian dropsy presents itself to you, you frequently have an easy distinction, because you frequently have such a peculiarity of shape and such a maintenance of shape as is only to be explained by the existence of separate cysts. You frequently have such limitation of fluctuation as is evidently only explained by the circumstance that you are percussing different collections of fluid. These circumstances are frequently pointed out to you in "Martha," and I need not dwell further upon them.

I have now gone over the great features of a disease which is not rare, of which I have given you an example, and which consists in the collection in the abdomen of a large, but more frequently of a small, quantity of hydroperitoneal fluid. These cases are treated more appropriately by tonic medicines and tonic regimen than by diuretics. A justly favoured medicine in cases of this kind, whether of simple hydroperitoneum or of chronic peritonitis with collection of fluid, is the syrup of the iodide of iron. Cases are not rare in which, as in the case that I have read to you, a cure (of what may have been supposed to be ovarian dropsy) has followed this treatment. In many of these cases, when the accumulation is large, another method of treatment is adopted, namely, to draw off the fluid. I have seen several cases in which still another treatment has been unintentionally or designedly adopted, that is called nowadays the exploratory incision. I am not advising you to do this, or to abstain from it. It is not very rarely done for various reasons, and you find nothing but a hydroperitoneal collection. You may find the peritoneum, to the eye, perfectly healthy; you may find it red; you may find it in a granular red state, or even covered with granular whitish-yellow lymph; or you may find it studded with tubercles. In several cases I have known this operation followed by what is called cure—that is to say, the fluid has been discharged in this way and never has re-accumulated, and this even with a peritoneum red and granular, or having large surfaces of granular lymph. Many cases are recorded, and many cases occur, of cure by tapping, and sometimes after frequent tapping. Tapping is, however, an operation to be done in some cases where you have no hope of cure. It is not only in cases of hydroperitoneum of a simple kind, but in cases of hydroperitoneum connected with malignant disease, that you sometimes give great relief by tapping and evacuating the peritoneal cavity. A case of this kind

occurred in the hospital not very long ago. A woman had a double solid ovarian tumour with enormous hydroperitoneal collection. She was sent by her doctor and carried into the ward avowedly to die in a few days, and certainly hopelessly ill. After tapping and drawing off a large quantity of thin serous fluid she rapidly recovered, and left the ward in good spirits and apparently in fair health. She returned to her work as a washerwoman, and she went on with it for several months, and then took to her bed again, and died of the malignant solid tumours of the ovaries, and with a smaller re-accumulation of the fluid. You observe that in that case there was a return to fairly good health temporarily while a malignant disease was progressing, and the reversion to health was manifestly due to the relief afforded by the evacuation of the peritoneal cavity.

This operation must be done with the greatest care, and it should always be done antiseptically. The operation may be fatal if septic air happens to be drawn into the peritoneal cavity through the opening that you make. I had a case under my care, before the antiseptic treatment was fully introduced, where it was necessary to tap the abdomen for hydroperitoneum in an old woman who had an old uterine fibroid. The tapping was done by her physician in the country, and it proved fatal in consequence of air getting into the abdomen through the little aperture and producing putrefaction of the fluid in the peritoneal cavity. That was a great disaster which, I think, you can avoid with absolute certainty by operating in a proper manner. You may draw off the fluid by the ordinary trocar and cannula; but there is an improvement on this. The improvement is with a view to avoid the misadventure of the opening of the cannula coming against the bowel or omentum so as to occlude it. The peculiar instrument which I show you here has a termination something like that of a female catheter. It is pushed through an opening made in the abdominal wall by a bistoury; it can be propelled among the bowels to varying distance, and made to move about in the peritoneal cavity so as to drain off all that can be reached. Here you have no risk of the bowel closing the terminal aperture, for there is no terminal aperture; and if the bowel closes one lateral aperture it is sure to leave some of the other lateral apertures open.

Before concluding, I shall say a few words upon hydroperitoneum as a complication of other diseases, not as a simple disease. I need not repeat what I have already said, that you have often hydrothorax along with hydroperitoneum. It is always held to be an unfavourable sign of any abdominal tumour to have around it a considerable accumulation of fluid. The malignant diseases of the abdomen—malignant ovarian tumours, malignant tumour of the uterus, malignant disease of the omentum—have always, or almost always, large quantities of hydroperitoneal fluid. Hydroperitoneal fluid is frequently found with ovarian dropsy. It is often, in this case, very difficult to say whether it is hydroperitoneal fluid or fluid from a burst cyst. In ovarian dropsy a large cyst may break, and throw into the peritoneum a quantity of thin serous fluid which does not irritate the peritoneum at all, or but very slightly; or you may have numerous small cysts forming on the outside of the bigger cysts, and bursting into the peritoneum. There is no doubt, however, that you have frequently simple hydroperitoneal collections accompanying ovarian dropsy, just as you have in the same cases frequently also hydrothorax, which latter cannot proceed from a burst cyst. We had lately in "Martha" a splendid example of this in an old woman sixty-eight years of age, in whom there was an enormous true hydroperitoneal collection. Its composition alone almost demonstrated this. In that woman ovariectomy was performed, and her case illustrated an interesting point in this form of the disease—that when you remove the source of irritation the disease ceases. That old woman had no return of her hydroperitoneum after the ovarian cystoma was removed. She left the hospital, and was known to be for a long time afterwards quite well. Solid ovarian tumours are very rare. They are generally malignant, and they generally are accompanied by a large amount of hydroperitoneal fluid. Uterine fibroids are not rarely the cause of hydroperitoneal effusion, and you find it in two forms. On examining some women affected with uterine fibroid, still small, you can feel something like *ballottement* from the motion of a tumour floating about in a collection of fluid which fills Douglas's space. But you also have, not very rarely, large hydroperitoneal collections with fibroids. We

have one at present in "Martha," but that case I shall not read to you because there is some doubt about it. There is no doubt that she has a large uterine fibroid and a large hydroperitoneal collection, but there is considerable doubt whether she has not, in addition to that, malignant disease in the pelvis. We have had lately in "Martha" several cases of peri- and para-metritis with hydroperitoneal collection; and you know there is a disease called serous perimetritis which may be described as perhaps only an extreme condition of the same, where the fluid is contained in a cyst formed by peritoneal adhesions and viscera. Chronic peritonitis and tubercular peritonitis have, as one of their great peculiarities, hydroperitoneal collection. Then in cases of cancer in the abdomen you have often, as the only indication of the disease, a collection of fluid. I shall read an interesting case of this kind to you now—a case of cancer beginning somewhere in the neighbourhood of the uterus, and producing, as its only great indications, degradation of the general health and a hydroperitoneal collection.

"K. B., aged thirty-nine, married for sixteen years; four children—the last seven years before admission to 'Martha.' Catamenia began at sixteen, and are regular. Has been in warm climates. Never had ague nor jaundice. Liver dulness natural. Urine acid, 1025; no albumen. Abdomen began to swell six months ago, and pain also appeared in the right iliac region. Abdomen uniformly prominent, semi-globose; dulness on deep percussion nowhere absolute except in hypogastric region. The uterus is found a little behind and above its natural position. Behind it is a small tender hardness, presumably an ovary. Uterine cavity measures two inches and a quarter. Girth on October 29, 1878, thirty-nine inches and a quarter; October 31, thirty-nine inches and three quarters; November 2, forty inches and a half; November 4, forty-one inches and a quarter. November 5, tapped, and nineteen pints drawn off of thin, clear, greenish-yellow fluid; specific gravity 1020; considerable amount of albumen; no clot forms. The sediment contains a few granular cells twice as big as blood corpuscles. After tapping, some hard masses of the size of a walnut can be indistinctly felt in the hypogastric region. General health improved after the tapping; but the abdomen was rapidly refilled. She left the hospital, and returned on January 4. Girth forty-five inches and three-quarters. Thirty-two pints drawn off. Fluid as before—highly albuminous; chlorides; no coagulum. Sediment contains numerous cells declared to be cancer cells. Soon after this she left the hospital. It is understood that subsequently her abdomen was, in another place, opened by exploratory incision, and small malignant growths observed in the lower part of the abdominal cavity. She is reported as being now tapped about every two months; and the hard masses in the lower part of the abdomen have increased in size." Plainly a case of malignant disease beginning and showing itself originally only by the hydroperitoneal collection.

The last thing I have to mention is an extremely rare disease in which hydroperitoneal collection forms the most prominent feature also—not cancer of the abdomen or of any of the viscera in it, but cancer of the peritoneum itself—an extraordinary disease that generally advances with rapidity, and which is characterised by the presence of a large quantity of fluid, by the absence of distinct tumour, by the fluid evacuated being often bloody-tinted. Rapidity of increase you expect from the immense surface which can be easily infected by continuity or by contiguity. This disease is, from its acuteness and rapidity, often called cancerous peritonitis, although there is no inflammation necessarily attending it. I had, some years ago, a remarkable case in a fine, healthy-looking, handsome, stout woman, who came into the hospital with the symptoms I have described to you, and who in six weeks died in a state of extreme emaciation—so rapidly had the disease advanced. At first in that case there was nothing but hydroperitoneum; but afterwards and long before she died, the diagnosis of cancer proper was made.

HEALTH OF HASTINGS.—The Medical Officer of Health for Hastings, in his report to the Town Council, stated that the death-rate for the past quarter for the borough was lower than in any corresponding period for some years.

CLINICAL LECTURE ON A CASE OF PERICARDITIS WITH NUMEROUS COMPLICATIONS.

By HENRY THOMPSON, M.D., F.R.C.P.,
Consulting Physician to the Middlesex Hospital.

SARAH B., a married woman, aged forty-six, was admitted into the Middlesex Hospital, January 3, 1879. Her father and mother lived to a good old age, the one dying at seventy-five, the other at seventy-four. Her brothers and sisters are all healthy. Her own history is thus briefly recorded:—She has been subject occasionally to slight rheumatism in the finger-joints. She has never been laid up for any length of time. For the last twelve months, however, she has been losing flesh and becoming pale. About two months ago she was seized with shortness of breath and cough, which have grown gradually worse of late, but she has never suffered from pain of any moment. A fortnight ago œdema appeared in the lower extremities.

On admission she is described as a stout, flabby, anæmic, muddy-complexioned woman. Her legs are swollen as far as the knees, but there is no swelling elsewhere. She now complains of pain across the chest. She is short-breathed and coughs slightly. The lung-resonance is imperfect over the left front, excessive in the central regions at the back, but again deficient at each posterior apex. The heart's impulse cannot be felt, and the sounds are feeble and distant. The area of præcordial dulness reaches the second left interspace. The cough is paroxysmal; the sputa are thin and watery; the jugulars large and distended—markedly so in the act of coughing, when they become beaded and varicose. Urine of specific gravity 1015, non-albuminous.

January 5.—A faint impulse may be felt over the fifth interspace. Over the third space there is a distinct systolic superficial murmur.

7th.—The heart-sounds are inaudible at the normal situation of the apex, scarcely audible in the fourth space, and very weak in the third. There is no murmur now, but the rhythm of the natural sounds has a slightly cantering character.

9th.—The right front is freely resonant, except over the breadth of an inch along the margin of the sternum. On the left side there is absolute dulness in the third, fourth, and fifth spaces, while in the second, and even in the axilla as far as its posterior border, the resonance is greatly impaired. Urine 1010, non-albuminous.

18th.—There is dulness in the axillary regions on both sides, reaching as high as the fourth space. Numerous fine moist râles throughout the lower lobes. No albumen in the urine; specific gravity 1020.

21st.—On the left side there is no good resonance anywhere in the front or in the flank, except at the outer part of the two first interspaces. The axilla is dull even to its summit.

24th.—A distinct percussion-wave may be transmitted across the abdomen.

28th.—Grazing sounds heard superficially with systole and diastole.

February 6.—A friction-murmur at the præcordia.

On the 7th no definite murmur; only a cantering rhythm with the heart-sounds. On the 8th the hands and arms swelled slightly. On the 11th she died.

I have above limited myself almost exclusively to a mere sketch of the main physical signs, drawn in the most meagre fashion. For the rest, the history was one of increasing œdema, ascites, dyspnoea, and distress, in no respect differing from the melancholy records of heart-disease in general. The respirations ruled high, and so did the pulse-rate. There was nothing noteworthy in the temperature. For a few days after admission there appeared to be some slight amelioration in the symptoms, but it was short-lived only. Soon the disease ran its course unchecked and uninfluenced by remedies, which proved to be palliative at best, and nothing more. It would be wearisome and useless to recount those remedies; let them pass.

Autopsy (from the report of Dr. Sidney Coupland).—Both lungs universally adherent to the chest-wall, the diaphragm, and the pericardium. The pericardial sac occupied a large space; its outer fibrous coat, overlaid with fat, was much thickened and toughened in its proper substance. The

visceral membrane was similarly thickened in a minor degree. Externally there were no adhesions between the pericardium and the chest-wall. Internally the heart adhered rather firmly to the back of the pericardium by a layer of recent lymph presenting a rough, honeycombed, granular appearance. When denuded of this material the heart was seen to be largely overgrown with fat. The apex was rounded, the right ventricle—distended with blood-clot—alone entering into its formation. The wall of this ventricle was mainly composed of fat, within which the myocardium was reduced to a lamina of soft friable tissue of a brownish faded-leaf tint. The wall of the left ventricle was similar in colour to that of the right, but softer in consistency, and more easily broken down. Microscopic examination showed that the muscular fibres were finely granular, but the striæ were not entirely obliterated. The valves on each side were nearly natural. The lining membrane of the aorta was raised into irregular prominences of atheromic deposit. Both lungs presented general condensation of their substance; they were tough everywhere, and the lower lobes particularly condensed and semi-carnified. A quantity of serous fluid flowed from the smooth dark-red surface on section. The liver displayed a typical nutmeg character. The spleen was soft and adherent to the left extremity of the liver. The capsule of the spleen was the seat of a dense yellow semi-cartilaginous patch. The kidneys were dark red, full of blood, finely granular on the surface, and greatly indurated.

Gentlemen,—The nature of the foregoing case during life was looked upon as a problem awaiting its solution in the dead-house. Of course it was a case of pericarditis; there could be no question about that point. Pericarditis, however, failed utterly to cover the whole assemblage of signs and symptoms, not to mention that there was no unequivocal explanation of the pericarditis itself. The wide area of dulness or impaired resonance was far beyond the mark of pericardial effusion, even when its range is inordinately enlarged. Once, and once only, have I known an exception to this statement; but I venture to say that for fifty years to come we shall never meet with its like again. In this unparalleled case the entire front surface of the chest was dead-dull on percussion, and the entire breadth of its cavity occupied by what looked like a leathern bag full of fluid, while the heart lay at the bottom of the sac bristling with lymph and much resembling a hedgehog or a porcupine on its lair. In the second place, dropsy, as far as I know, never arises from present pericarditis alone, or from pericarditis immediately past. Something more than this, something deeper-seated and of older standing, was required in order to account for all the phenomena. Many wild hypotheses were advanced, many dreams of diagnosis passed before us in swift succession, and were as swiftly discarded. One fixed idea took possession of my mind, and held it to the last. There must be a morbid substance gripping the heart and hampering its action—not simply dislodging the organ, as a mass of cancer in the mediastinum might do. Accordingly, I made bold to write down as my diagnosis—fibrous induration of the pericardium with adhesions to the surrounding pleuræ. The diagnosis you see is true as far as it goes, but it falls short of the entire truth; the heart's chambers were found to be dilated, and its walls degenerate and overlaid with fat. The dilatation, however, I regard as a mere corollary from the original lesion, the fibrous enlargement of the pericardium. Anything which embarrasses the free play of the heart-walls sooner or later leads to dilatation of their cavities, to say nothing of the old visceral pericarditis which may have undermined the cohesion of the adjoining muscular tissue, and lessened its power of resistance to the blood-pressure. To this dilatation the dropsy was owing in the main. Mere development of fat, whether in the form of growth or in that of degeneration, whether extra-fibrous or intra-fibrous, will seldom or never determine dropsy in the proper sense of the term. On the other hand, the granular changes in the kidney, slight as they seemed to be after death, and undisclosed as they were by albuminuria during life, may have lent their aid in the determination of the dropsy. For the disclosure of these granular changes we are indebted to the post-mortem inspection alone. One of the great mysteries of the case was the uniform absence of albuminuria. Had we discovered but once even a trace of albumen, pericarditis would have been perfectly intelligible; it is a common accompaniment of the atrophic form of renal disease, and the præcordia should always be examined for it

in these cases. As it was, we had no historical clue to the presence of pericarditis, which should never arise spontaneously; it is always, I believe, secondary to some prior ailment which ought to declare itself by its own peculiar signs and symptoms. On the whole, the antecedents of the case tell us nothing, or next to nothing; but here the autopsy comes to our aid, and sheds a clear light on the genesis and development of the disease. Everything points to the granular kidney as the *fons et origo mali*, save only the overgrowth of fat on the heart, which in all likelihood was owing to general obesity. Given kidney-disease at the onset, the pervading pleurisy is at once explained.

Again, given pleurisy and its products around the mediastinum, all the remaining phenomena follow in due order of succession one upon another, or they flow collaterally from the common source at the fountain-head. Pericarditis—external and internal, old and recent—degeneration of muscular fibre, increasing diffusion of dulness due to increasing œdema and condensation of lung-tissue, may all be referred with ease and certainty to the self-same cause. In this connexion you may well wonder how it came to pass that a disease, even now immature and unannounced by albuminuria, could have wrought so much mischief long before admission at a time when you might fancy the morbid change to have been insignificant and inappreciable to the naked eye. I would not have you to count too surely on the correctness of this idea. For aught we know to the contrary, the lesion may have existed in much the same degree of development for months—nay, for years past. I have good grounds for believing that nothing in the whole compass of pathology is so slow in the cycle of its changes as granular atrophic interstitial nephritis. Bristowe says it may last ten years or more; my own impression is that it may last upwards of fifteen years. You are all familiar with the corresponding lesion in the liver, known by the name cirrhosis—a name, however, which I hope you will never apply to the kidney. The two diseases are the counterparts of each other, not in structure only and in outward appearances; they are just as closely allied in the slowness and secrecy of their growth. Many a man is at this day walking about the streets of London with one or other of these maladies in embryo, but without the shadow of a suspicion that he is the victim of a dangerous disease. Slow, however, as they both are in their evolution, the pace of cirrhosis is far faster than the pace of renal degeneration, although cirrhosis is not of necessity mortal, which the kidney disease must be in its own due season if nothing intervene to forestall it. Again, in the same connexion, note, I pray you, the absence of albuminuria from beginning to end—for a period of five weeks or more. Gentlemen, if you have reason to suspect that the kidney is degenerate, whether you base your reasoning on the age and aspect of the patient, the life that he has led, or on the nature of the case, and the co-existence of symptoms otherwise hard to understand, never abandon the presumption you have formed, simply because you find no albumen in the urine although you may have searched for it unceasingly day after day. Still less abandon that presumption if the specific gravity rule low—nay, abandon it not if the density be of the normal average or above it. A low density speaks forcibly in favour of a dwindling kidney, but it is far from being universally present in these cases; often enough it is absent when the organ has not made much progress in degeneration, or when the case is drawing near to its close, or when there are severe complications in the chest. Least of all abandon the idea in question because you fail to discover casts under the microscope. This is a piece of negative evidence altogether untrustworthy. Again and again you will see no vestige of a cast even when the urine is albuminous. Do not mistake me, however. Suspect the existence of Bright's disease as strongly as you may, and even act on the suspicion as far as you are personally concerned, but keep your own counsel; tell it not to the patient, publish it not to his family and friends, unless there be albumen in the urine.

I reserve to the last the main point I wish to dwell upon. The heart-sounds are more than once described as cantering in rhythm; again, they are represented as unnaturally rough and murmur-like; finally, they are said to have been associated with friction-sounds of definite pericardial character.

The rhythm of the auscultatory signs in pericarditis is peculiar and almost unique in a large proportion of cases,

amounting, I should say, to more than one-half of the cases wherein those signs are widely diffused and fully pronounced. It is a cantering tripartite rhythm—a tune in three times—you might waltz to it very well.

I feel bound to lay before you my own views on this matter, although they are hopelessly at variance with those of other people. The rhythm is composed of three several sounds, so arranged that two of the number go together while the remaining one stands apart. The solitary element, the monad, comes first in order, and the dyad or the twin elements follow and close the circuit. Moreover, to my ear the monad coincides with the carotid pulse and is systolic; the dyad falls within the period of the diastole.

In the simplest form of the physical sign, to the best of my belief, we have only to deal with the splitting of the natural heart-sounds into three elements combined in the manner aforesaid: the systolic sound remains single, the diastolic sound is doubled. But what becomes of the adventitious sounds, the brushing murmurs, the rasping, the grating, and the creaking noises of pericarditis? Do they comply with the law that governs the evolution of the natural sounds in the simple form? To a great extent they do. The softer varieties—those which constitute the exocardial murmur of the old authors—in a multitude of cases conform to the law exactly. They intermingle with the natural sounds, and may obscure one or more of the three elements, but they seldom destroy the rhythm. Masked as those elements may seem to be by the accompanying murmur, they still, as a rule, retain the power of giving their own time to the accompaniment, and thus the murmur itself becomes tripartite. It is otherwise, or it may be otherwise, with the harsher modifications, those which offer no analogy to a murmur at all. So soon as the signs of pericarditis assume the rasping, creaking, or grating characters, the voice of the rhythm is apt to be drowned in the din, and often vanishes altogether.

I dare not deny that there may be other varieties of tripartite rhythm, owning a different origin, and standing in other relations to the carotid pulse, but they are rare by comparison, and the standard variety is that which I have endeavoured to define. Again, I dare not affirm that the rhythm, as defined, is absolutely pathognomonic; it may perchance occur in some most exceptional cases—few and far between indeed—apart from pericarditis. Still less would I limit the *cantering* rhythm to pericarditis alone, although that is the most convenient term for common use. Triple pericarditic rhythm would be a long, unwieldy phrase; besides, it would seem to involve a diagnosis—which the language of clinical medicine should never do, if it can be avoided; it should be descriptive only, wherever it is feasible. Bear in mind, however, that the two terms are not co-extensive in meaning; they are thus far synonymous, and no farther. Every rhythm of the foregoing pericardial type is cantering, but every cantering rhythm is not pericardial in type. Cantering, then, is the larger term in the latitude of its range: it includes the other, and it includes more than the other. Still, in speaking of pericarditis, I should recommend you to adopt the expression, and, whenever you have a chance, to master thoroughly the thing expressed.

I have described the rhythm when it appears in its simplest form and is reduced to its lowest terms as a morbid subdivision of the natural sounds, essentially unconnected with the friction-signs of pericarditis. This point might be disputed, but I have repeatedly demonstrated examples of the kind wherein there was nothing to convey the remotest idea of a rub as ordinarily appreciated by the ear. In such cases it is utterly impossible that the natural sounds should be lost to the listener, or even much subdued in tone; they must be present and fairly well pronounced. In a word, they are apparently the first and second members of the trio. What, then, is the third member? If the first and second are not of the nature of friction-sounds there is no reason in the world why the third should be supposed to be of this nature. Possibly by making pressure on the chest with the stethoscope we may sometimes call forth a true rub, which may even be coarse enough to efface the sound or sounds originally heard, but this is of no importance to the main issue. What were those sounds before the pressure was made, when the rhythm revealed no degree of resemblance to the murmurs or noises of friction? The pressure-test may occasionally determine the origin of a doubtful murmur; but here you have no murmur at all to deal with. It might

indeed be alleged that an amount and kind of friction incapable of altering the intonation of the two natural sounds may at the same time develop in their train a third sound—a friction-sound pure and simple, though devoid of all friction-like characters. This is fine steering, gentlemen; in my opinion, far too fine to be safe and sure.

I hold to my own conviction, that all the members of the entire trio in the simple form are only the natural sounds under a thin disguise; the third is but the echo and double of its predecessor. If this be the rule for the simple form, it will be the rule also for the great majority of complex cases associated with true friction, the only difference being that the disguise is deeper—that is all.

Perhaps I ought to enlighten you with my own views on the genesis of the rhythm. I cannot enlighten you. I can only offer you a random speculation, a mere guess and nothing more. The lymph and fluid within the pericardium encounter unequal degrees of resistance to the pressure they exert upon the aorta and upon the pulmonary artery. The latter is the more yielding vessel, and suffers more from constriction than its fellow. Again, owing to the same cause, the pulmonary artery suffers more from collision with the chest-wall and with surrounding organs when the heart and its appendages are lifted above their proper level, and held fast within the narrowing bars of their cage at the top of the thorax, as they usually are when large effusions expand the pericardial sac evenly in all directions, upwards at the attachments of the heart, as well as downwards and sideways. For both these reasons the closure of the semilunar valves and the resulting shock during diastole may be delayed on the right side, while they keep due time on the left. Hence the splitting of the diastolic sound. Other causes may conspire, as in the present case. The heart of S. B. was certainly raised by extrinsic adhesions to a higher point than natural, and it was overwhelmed with masses of lymph; but more than this, it was increased in bulk, and firmly grasped by the dense coating of its own fibrous pericardium. Hence an additional interference with the timely working of the sigmoid valves on the two sides.

Let these things go for what they are worth. I don't care, gentlemen, whether you accept one word of theory or analysis that I have uttered this afternoon. I don't even care whether you recognise critically and musically the grouping of the several sounds described, so long as you recognise the rhythm itself in a practical way—so long as you know it when you hear it. Whatever you may think of the minutiae involved in this discussion, the rhythm itself is no mere clinical curiosity, no immaterial refinement. It is a matter of great pith and moment in the diagnosis of a disease which surely ought never to pass unnoticed. It is of the more moment inasmuch as the simple rhythm alone, apart from all semblance of rub, is far from uncommon in pericarditis. If, then, you pay no heed to this note of warning when it is sounded in your ears, the disease will steal a march upon you, and you will be so much the later in overtaking it with your remedies.

MYOPIA AND SCHOOL-BOOKS.—Prof. Javal, Director of the Ophthalmological Laboratory at the Sorbonne, in a communication to the Académie de Médecine, directs attention to the influence which the employment of lesson-books with small print has in the production of myopia in young children, and he recommends that in all public elementary schools such books should be prohibited, large characters being insisted upon for very young children, these being diminished in size as the children are older.—*Bull. de l'Acad.*, November 4.

LITHOPLAXY.—In a case of stone occurring in a man, twenty-two years old, Dr. Bigelow recently removed, in one hour and seventeen minutes, a calculus, of which two fragments weighed 720 grains. There was no blood in the urine during the operation, nor any unfavourable occurrence afterwards, the patient rapidly convalescing. The calculus was phosphatic, but quite hard, having a small lithic nucleus. It measured two inches and a half, and could not be grasped by a Thompson's lithotrite. It was crushed by Dr. Bigelow's lithotrite, and aspirated through a tube of the diameter of 30 French. This is, with one exception, the largest stone yet removed by the new method.—*Boston Med. Jour.*, October 2.

ORIGINAL COMMUNICATIONS.

THE PATELLAR TENDON REFLEX.(a)

By BYROM BRAMWELL, M.D.,

Late Physician and Pathologist to the Newcastle-on-Tyne Infirmary; late Joint Lecturer on Clinical Medicine and Pathology in the University of Durham College of Medicine, Newcastle-on-Tyne.

(Continued from page 474.)

THE exact value, therefore, of patellar tendon reflex as a diagnostic of locomotor ataxy is still *sub judice*.

Let us now endeavour to ascertain the particular part of the transverse section of the cord in which the arrest takes place in locomotor ataxia.

Pathological Anatomy of Locomotor Ataxy.—The characteristic lesion of locomotor ataxy is said to consist, when fully developed, of a sclerosis of the posterior columns with degeneration of the posterior root-fibres and of the posterior horns of grey matter.

The arrest must, therefore, take place in one or other of these parts. But, since the patellar tendon reflex is sometimes absent at a very early stage of the affection, it will aid our inquiry to determine in what part of the transverse section of the cord the lesion commences.

Observations in this part are necessarily very few. We all know how seldom cases of locomotor ataxy are followed by a dissection, and it is infinitely rare to have the opportunity of examining cases in the early stage of the disease. The observations which we do possess are somewhat contradictory.

Charcot and Pierret say, "The sclerosis begins in the external bands of the posterior columns, where the inner root-bundles mix with the vertically ascending (probably commissural) fibres of the posterior columns. This sclerosis of the lateral bands or ribbons is, according to these authorities, the only essential anatomical change in locomotor ataxy." (b)

Lockhart Clarke found the posterior horns so constantly involved, that he raises the question whether they are not the first to be diseased, or at all events very early affected in all cases.

A recent observer, Dr. Takács, (c) says that the sclerosis of the posterior columns is a secondary process, the primary affection, according to him, being an atrophy of the posterior nerve-roots and posterior cornua, or a meningitis posterior.

Part of the Cord in which the Arrest takes place.—In the present position of the subject we can hardly, I think, come to a decision as to the exact point at which the arrest occurs.

If we suppose, with Dr. Gowers, that the stoppage takes place in the posterior root-fibres, it is necessary to grant that those fibres of the posterior roots which are concerned in this particular reflex have some special situation which favours their early affection in locomotor ataxy; for we occasionally meet with cases of the disease in which the ordinary skin reflexes are preserved, or even exaggerated, but in which the patellar tendon reflex is destroyed. Cases are also seen in which the patellar tendon reflex is absent, with little or no disturbance of sensibility. In such cases, if the arrest takes place in the posterior root-fibres, the lesion of the root-fibres must necessarily be a very limited one—in fact, confined to those fibres concerned in this particular reflex, the fibres for the skin reflexes and for the conveyance of sensations being intact.

If Charcot's observations as to the commencement of the lesion be correct, we can easily understand that those root-fibres which are in closest connexion with the posterior columns will be first diseased. If, therefore, the arrest takes place in the posterior root-fibres, and if Charcot's observations as to the position of the lesion be correct, we may theoretically conclude that the innermost fibres of the posterior roots—the fibres which pass through the outermost part of the posterior column (median portion of posterior nerve-roots) in making their way to the posterior cornua—are the fibres concerned in this reflex act.

Leaving it, therefore, undecided whether the arrest takes place in the posterior root-fibres or in the posterior cornua, it only remains to explain those exceptional cases of loco-

(a) Read before the Northumberland and Durham Medical Society on November 14, 1878, and before the Medico-Chirurgical Society of Edinburgh on June 4, 1879.

(b) As quoted by Erb, in "Ziemssen's Cyclopædia," vol. xiii., page 538.

(c) *Centr. Med. Wiss.*, December 14, 1878.

motor ataxy in which the patellar tendon reflex is still present. This we can readily do by supposing that in such cases the particular portion of the lumbar cord through which the reflex travels is as yet unaffected by the lesion, or possibly that, the lumbar cord being affected, the lesion has as yet spared the particular fibres concerned in this reflex act. But we know from actual observation that it is quite exceptional to find the lumbar cord free from disease; hence it is also quite exceptional to find the patellar tendon reflex still present.

Other Diseases in which the Patellar Tendon Reflex is Absent.—Destruction of the lumbar portion of the cord, the centre through which the reflex travels, will of course arrest the phenomenon. This destruction may be the result of traumatic injury, or it may be the result of myelitis, cancerous deposits, etc.

In the following case of cerebro-spinal sclerosis the phenomenon was absent, the ordinary skin reflex being well-marked.

Case 7.—Case of supposed Cerebro-Spinal Sclerosis (chiefly Intra-cranial)—Absence of the Patellar Tendon Reflex.

J. M., aged twenty-seven, single, a soldier, was admitted to the Newcastle-on-Tyne Infirmary, under my care, on January 24, 1878, complaining of shaking of the body, dimness of vision, and deafness.

Previous History.—He enjoyed excellent health until three years ago. He then began to complain of deafness. He was admitted to the hospital at Malta, where he was stationed, and remained there for six months. He was then sent home to Netley, and was finally discharged as incurable. He has been giddy since his illness commenced. His eyesight has gradually failed. For the past four months he has suffered from "shakings." The tremblings commenced in the legs, and only occurred on movement. He has been a hard drinker and has had syphilis.

The family history is unimportant.

Present Condition.—The facial expression is dull and stupid; his memory seems much impaired. The movements of the eyes are slow and peculiar. He seems to have some difficulty in getting them into the proper axis for vision. The left pupil is small, the right dilated. Sight is considerably impaired, especially in the right eye. Both optic discs are markedly pale, but the vessels seem of normal size. Hearing both to external and skull sounds is very imperfect in the left ear; *nil* in the right. The external ears are normal. Taste and smell seem natural. Speech is thick, and characteristically jerking. He suffers every now and again from headache; the pain is of a dull character. He has never had a fit.

Sensibility of all sorts seems normal.

The gait is uncertain; he is unable to regulate his movements, and often sways from side to side like a drunken man. The walk is not at all like that of locomotor ataxy. He can stand as steadily with his eyes shut as when they are open. After walking, the head and neck oscillate in a characteristic quick rhythmical manner. There is at times some nystagmus. No oscillations are seen in the extremities, but he says they used to occur in the legs.

The patellar tendon reflex is quite absent. The ordinary reflex movements from the skin are, on the contrary, well marked.

The diagnosis was disseminated sclerosis (Charcot's disease), as yet mostly intra-cranial and probably chiefly affecting the cerebellum.

He remained in the hospital for two months, and was then made an out-patient, being *in statu quo*.

On October 31 he was re-admitted. His walking was much worse, and he complained of numbness in the left thigh and leg. The oscillations of the head and neck were greater.

Remarks.—This may have been, and probably was, a case in which the patellar tendon reflex was naturally absent. If its absence was the result of this disease, it was presumably due to the presence of a patch of the lesion in the reflex tract. Such an occurrence is of course quite accidental. In another and much better marked case of disseminated sclerosis, which I have had under observation for the past five years, the patellar tendon reflex is not only present but exaggerated.

Lesions of the anterior cornua, or of the anterior roots of the second, third, and fourth lumbar nerves, will also arrest the reflex. The following are the brief notes of a case of

old paraplegia, resulting from acute myelitis, in which the lesion seems chiefly to have affected the motor portions of the cord. In it the patellar tendon reflex and the ordinary skin reflex were both absent.

Case 8.—Case of Acute Myelitis—Total Loss of Motor Power and of Sensibility—Paralysis of the Bladder—Sensibility beginning to be Restored at the end of First Year, completely Regained at the end of Three Years—Motor Power very slowly Restored—Locomotion possible at the end of Seven Years from the date of the Attack.

G. K., aged fifty-nine, a publican, married, came under my care on February 16, 1879, suffering from the effects of old paraplegia.

Ten years previously he had suddenly lost the sensibility and the motor power in the lower extremities. The attack, which came on after prolonged exposure to cold and wet while shooting, was not accompanied by pain. The bladder and rectum were both affected. The loss of motion and of sensibility was complete for a year. Sensibility then began to be regained. In two years it was completely restored. He was then able to move his legs a little. Since that date (seven years ago, three years after the commencement of the attack) he has been gradually regaining motor power, and for the past three years has been able to get about by the help of two sticks. He has been a steady man through life, and has not had syphilis.

Present Condition.—The patient's general health is good. The muscles of the lower extremities are extremely emaciated. Tactile sensibility, the power of localising impressions, and sensibility to temperature are quite natural. Sensibility to pain is markedly in excess.

The patellar tendon reflex and the skin reflex from the soles cannot be elicited. Urination is natural; the bowels are obstinately constipated.

Erb states, as we should theoretically expect, that this patellar tendon reflex is absent in the paralysis of children (acute anterior polio-myelitis). It is lost in the later stages of pseudo-hypertrophic paralysis (Gowers).

CASES IN WHICH THE PATELLAR TENDON REFLEX IS EXAGGERATED.

In this as in the ordinary reflex contractions which result from tickling the soles of the feet, the reflex movements are exaggerated in those cases in which the particular portion of the spinal cord through which the reflex fibres travel is healthy, but in which there are lesions that sever the connexion between the brain and the cord, and thereby arrest the controlling impulses which are supposed to pass downwards from the brain to the cord.

In cases of destruction (by injury or disease) of the spinal cord above the lumbar region (the centre through which the patellar tendon reflex passes), the phenomenon is exaggerated. Compression of the cord by an abscess will have the same effect. The following case is an example of this condition:—

Case 9.—Rigid Paralysis resulting from Disease of the Dorsal Vertebrae—Enormous Increase of the Patellar Tendon Reflex—Radiation of the Reflex to the Opposite Limb—Contraction of the Quadriceps produced by a Blow on a pinched-up portion of Skin over the Patella—Evacuation of an Abscess—Disappearance of the Paralysis—Diminution of the Patellar Tendon Reflex.

J. P., aged thirty-three, married, a fitter, was admitted to the Newcastle-on-Tyne Infirmary, under my care, on April 18, 1878, suffering from paraplegia.

Previous History.—He has never been a very robust man, but enjoyed fairly good health until two years ago, when he began to suffer from pain in the small of the back. The pain was severe and was increased by movement. The pain has continued more or less constantly until a few weeks ago. He still feels it occasionally. There has never been any swelling or tenderness over the spine. He knows no cause for the complaint. Has been a steady man and has not had syphilis.

Five months ago he began to suffer from weakness and numbness in the legs. The weakness rapidly increased, and for the past three months he has been quite unable to walk. The left leg was at first more affected than the right. Ever since the commencement of his illness he has noticed jumpings in the muscles of the legs. For the past three weeks the legs have been quite rigid and stiff.

Family History.—So far as he knows, his friends are all healthy.

Present Condition.—He is a pale, dark-complexioned man, of spare habit of body. The lower extremities are extended, stiff and rigid; he is unable to move them from this position. On movement (both active and passive) the rigidity is increased, and the tension of the muscles can be felt to become greater.

The muscles are badly developed, but have always been so. There is no great difference, he thinks, in this respect since the attack commenced.

Urination is quite natural, and has been so since the commencement of the attack. The bowels are obstinately constipated.

Sensibility of all sorts in the lower extremities is impaired, though not absolutely lost. He complains of numbness in the legs and lower part of the trunk, and feels as if a cord were tied round his waist.

On tickling the soles of the feet the lower extremities become more stiff and rigid, but there are none of the usual reflex jerks.

When the patient is placed over the bed, and allowed to sit with his feet dangling, the rigidity is at first very marked. After a time, however, it passes off, and the knees become semi-flexed. If the patellar tendon be now struck, the whole extremity is thrown into a convulsion, with inversion of the foot, exactly resembling the tonic and clonic contractions of an epileptic fit. The spasm frequently extends to the other leg, but is never so violent in that leg as in the one struck. The spasm lasts for a considerable time; on several occasions it was timed to last for two or three minutes.

The convulsive spasm can also be produced by striking the quadriceps extensor femoris in the middle of the thigh, but is then less violent than when the patellar tendon is struck. If a portion of skin lying over the patellar tendon be pinched up and struck, a marked contraction of the quadriceps can be produced, notwithstanding that every care be taken to prevent any dragging on the tendon.

The legs frequently jerk of themselves, and are sometimes drawn up when the patient is lying quietly in bed.

Spine.—On the left side of the spine, at the level of the sixth dorsal vertebra, the back looks somewhat swollen and is tender, but no fluctuation can be detected.

The nervous system is otherwise normal.

The tongue is clear; the appetite good. The pulse numbers from 80 to 90 in the minute, and is visible, tortuous, and jerking. These characters are not increased on raising the arm, and there is no aortic regurgitation. The jerking is evidently nervous, the heart's action being very irritable.

Progress of the Case.—During the first two months after his admission he continued, as regards the lower extremities, *in statu quo*; but the swelling in the back became more prominent, and at last yielded distinct fluctuation. It was opened antiseptically, and a large quantity of pus was evacuated. The patient was then transferred to the surgical wards, under the care of my colleague, Dr. Arnison.

Shortly after the abscess was evacuated the rigidity and paralysis of the lower extremities began to get less, and at last altogether disappeared. The exaggeration of the patellar tendon reflex also decreased. When I last saw him the abscess was still unhealed; the rigidity and paralysis had quite gone.

(To be continued.)

THE ESMARCH BANDAGE FOR THE TESTICLE.—Dr. Eldridge, of Yokohama, Japan, in a note to the *New York Med. Record* (October 4), states that Esmarch's bandage is a useful substitute for adhesive plaster after epididymitis, or in chronic orchitis. "A bandage of pure rubber, three-quarters of an inch wide and five feet long, is easily applied, keeps in position well, and exercises a uniform and gentle compression, such as is unattainable by any other method. In applying it, the fact that each additional thickness of bandage greatly increases the pressure should be borne in mind, and the whole placed with the exercise of but little tension, as the action of the bandage is, so to speak, cumulative. In covering in the bottom of the testis the turns should be made as in artistically bandaging the head, skull-cap fashion, the adhesion of the rubber surfaces rendering the operation easy."

NOTES ON

TYPHOID AND REMITTENT FEVERS IN THE CAPE, NATAL, AND ZULULIA.

By W. T. BLACK, Surgeon-Major.

THE common form of fever that prevails in Natal and the coast districts generally north and south of Durban is the typhoid, which is found in both military and civil populations, and in the upper as well as in the lower classes of inhabitants, and in the towns as well as in the country.

Maritzburg, the capital city, is very advantageously situated on a rising ridge, with valleys on each side; yet the fever prevails in the town, both at its lowest level east as well as in the garrison of Fort Napier on the top of the ridge, 200 feet higher on the west. It has existed in the new county of Alfred to the south, whence a Resident Commissioner some time since was obliged to leave on account of his family all suffering from it, and further north in the posts and villages by the Tugela River. During the prosecution of the Zulu war typhoid fever was reported, in the lists of casualties occasionally issued by the Government, as occurring both at the base and seat of operations, and occasioning both sickness and deaths amongst officers and men; and the cases of the Prince Napoleon, Colonels Pemberton and Pearson, and others, are familiar to the news-reader.

It prevails also in the Cape Colony, but to a much less extent, owing to its climate being purer and drier, and its water-supply less contaminated by the decomposition of animal and vegetable *débris*. An epidemic, however, of this fever broke out in 1867 in the Cape Colony, and affected nearly all the coast districts, and particularly Cape Town itself and Port Elizabeth, but spread inland to Stellenbosch, Uitenhage, Simon's Town, Graham's Town, Paarl, and other villages.

An excellent and full report on this epidemic will be found in the *Army Medical Reports* for 1867, contributed by the senior medical officer there, Dr. R. Thornton, who with his staff were personally engaged in treating this disease at Cape Town, and visiting the infected districts. The nature of the fever is reported to have varied in different towns and places at the same time, from common typhoid to typho-malarial, typhus, or even bilious remittent fevers, and to have affected coloured people as well as Europeans, but not so generally. Some medical men saw cases of ague, and some even of yellow fever with black vomit; in Stellenbosch there were cases of typhus with petechiæ, in Simon's Town a typhoid with diarrhoea, and in Cape Town a typhoid without purging.

Epidemics of this kind seem to have been known to the older people before 1832—that is, during the slave-holding régime of the Cape Colony, when under the rule of the Dutch Government—and are said to have broken out in their slave estates amongst the labourers, and in their convict establishments amongst the gangs, and in mission stations amongst the school natives.

The rates of mortality varied much, probably owing to an inferior class of patients prevailing more or less at different places; Dr. Laing stating it was as much as 15 per cent. of sick in the Somerset Hospital—not per annum, but for the period of nine months. Dr. Abercombie states also 15 to 20 per cent.; but the reports from the Civil Hospital only state it 6 to 7 per cent. of fatal cases of all kinds. The rate of mortality, according to population, in Cape Town, is stated at 20 per 100 of total inhabitants per week, or over 100 per 1000 per annum, during the existence of the epidemic—a fearful amount. These figures were deduced from the numbers of funerals counted every day from June, 1867, to March, 1868, and observed from the top of the Signal Hill proceeding to the various European and native cemeteries surrounding the view of the basin of Table Bay.

Dr. J. B. Ebdon, who was Chairman of the Board of Health for Cape Town, gives a lucid and rapid sketch of the epidemic in Cape Town, in the *Medical Times and Gazette* of June 6, 1868, and he states the rate of mortality to have been at 6 per cent. in the town cases, and 15 per cent. in the hospital cases.

The plans of treatment seemed as varied as the classes of the fever. Dr. Roubidge recommended aperients followed by quinine at Port Elizabeth; podophyllin succeeded by quinine

was tried at Cape Town. Diaphoretics, also, and ammonia were given for the concluding typhus.

Everyone seemed to have used with success blistering on the back of the neck for the delirium and insomnia, and for the coma at the later stages of all forms of the fevers. In the bilious and remittent forms morphine and camphor were given for the sleeplessness, and during their course quinine, carbonate of ammonia, tonics, and brandy. Emetics and purgatives were not used generally at Cape Town; but chlorine, ether, valerian, iron, acids, and generous feeding was universally had recourse to. It was ultimately considered that quinine was useless as a preventive medicine against the infection, but that cleanliness, good living, fresh air, exercise, and ablution were much better prophylactics, so that officials, doctors, visitors, and nurses were much less influenced than was expected.

This fever also appeared in the ships of the Royal Navy on that station, as may be seen in the Annual Reports of the Naval Medical Department for 1868—thus showing its infectious character. In the *Daphne* six cases occurred on board after leaving Cape Town, and nine cases on the *Petrel* during the stay at Table Bay and Simon's Bay, when the epidemic was prevailing on shore. A very good account is given of these fevers coming under his notice there by Dr. Mansfield, who calls them typhoid, typhus, and low continued, but unaccompanied by diarrhoea or maculæ.

This Cape fever seemed to be something like the Maltese fevers, and it began in July, 1867, by ten cases in the winter, rose to 572 cases in the spring month of September, 1867, and declined to seventy-five cases in the summer month of January, 1868, owing to the people getting out of their hovels into the open air in fine weather, either for work or loitering about. The causes of this epidemic were said to be overcrowding, deficient drainage and sewerage, and imperfect water-supplies; for the improvement and extension of which a civic agitation has now been going on for several years without resulting in useful sanitation.

The like causes for the production of typhoid fever have prevailed at Maritzburg, the capital city of Natal—an impure quality of water, defective means of distribution, and inadequate sewerage and drainage,—and a lively contest has also been waged there for the amelioration of these faults, but hitherto without much success in altering the old state of things. It has lately been reported that the present Governor-General, Sir H. B. Frere, has taken great interest in sanitary matters in the Cape Colony, and is intending to give his strong support to the introduction of a Health Act and sanitary legislation in the Houses of Parliament. If these cities cannot raise funds of their own for such purposes, their financial credit is quite good enough to enable them to borrow them from capitalists at home, so as to fit them to carry out the necessary engineering works to reduce their sickness and mortality, and improve their health and the amenities of their respective localities and populations.

The waters of the rivers and streams in Natal in the coast districts are generally impure, as the banks are muddy and the bottoms are oozy; and the detritus in the valleys is polluted by animal and vegetable organic refuse, washed down by the summer rains, and left there to rot under a blazing sun and in a humid atmosphere. The air of these valleys is likewise contaminated from the same causes, and fogs are commonly seen hanging in them in the mornings after the upper slopes and ridges in the neighbourhood have become perfectly clarified. Under these circumstances, in order to provide against fevers, the sites of camps and posts, and houses and villages, would be better selected on the upper lands; and the waters for cooking and drinking would be better for being purified by boiling and filtering, and their organic impregnations precipitated by chemical reagents.

Notices of this typhoid fever prevailing in the garrisons in Natal will be found in the "Annual Reports of the Army Medical Department" for 1859, '60, '65, '67, '68, showing its endemic character and liability of spreading occasionally; but the mortality in the cases was not great. It seems also to have affected Port Elizabeth on the south coast, and Simon's Bay during 1867 and 1868; but the type of fever there was somewhat different, as it always is between the cases occurring on the coast and those inland.

It should be borne in mind, again, that there may exist in Natal and Zululua, besides the typhoid fever, a form of remittent fever, commonly called the African fever, met with

and described by various travellers on the coasts and in the interior of South Africa. This form has been well investigated by Dr. Livingstone in his "Missionary Travels and Experiences in South Africa" (1856), and also treated of fully in his "Zambesi and its Tributaries" (1866), its production, prevalence, and the proper treatment for the same being discussed. He speaks of its origin by chill; and particularly warns the traveller against wearing clothes wetted by heavy rains or by crossing rivers, and so drying them in the open sun on the body; says it is malarious, and prevails in March and April; that quinine is of little use as a prophylactic; but that regular exercise, mental employment, and good fresh nourishing food are far better.

In the *Medical Times and Gazette* for November 12, 1859, will be found a valuable article contributed by Dr. Livingstone himself on "African Fever in the Zambesi Valley," where a full account is given of it, with cases in the Portuguese army there stationed, and the treatment he used. Commonly, a purgative was given first, followed by a twenty to thirty grain dose of quinine, repeated afterwards in smaller doses if required; excessive vomiting was cured by blistering over the stomach; and enlarged spleens were reduced by sulphate of iron and quinine given as a medicine internally.

The form of pills recommended by him for these fevers was then well known for the use of travellers going up country, and consisted of calomel gr. iij., quinine gr. iij., with rhubarb gr. viij. and jalap gr. viij., made up into four pills, with tinct. cardamom. co. q.s. The four pills constituted a dose for a robust adult male, and one pill was that for a female. Their administration relieved the oppressive febrile symptoms in twenty-four hours, and the cure of the case was continued by giving quinine in large doses every two or three hours to produce cinchonism, when it was reduced in dose as convalescence manifested itself.

A valuable article in the *Medical Times and Gazette* of May 11, 1867, and July 6, 1867, "On the Fevers, Sunstrokes, and Plagues in Central Africa," gives much information on their hygiene and treatment, based upon Livingstone's views. There are various other contributions on African fever to be seen in the *Medical Times and Gazette*, interesting to the traveller on the south-east coasts of Africa: one (June 29, 1861) by Dr. Livingstone, on fevers, and their treatment by his "Rouser Pills"; review, Livingstone's "Missionary Travels and Experiences" (December 12, 1857); review, Livingstone's "Zambesi and its Tributaries" (January 6, 1866), concerning chiefly their medical aspects and hygienic relations, with notices of the African fevers and their treatment.

Further notices of the ravages and mortality occasioned by these fevers are to be found in the history of the Church Missionary societies stationed on the Zambesi and Shirwa rivers, occasioning notoriety at the time by the deaths of Bishop Mackenzie and Mrs. Livingstone, and others of the parties. The *Medical Times and Gazette* of July 5, 1862, and September 27, 1862, contains remarks on these events; and also that of August 1, 1863, on the fatality in the Mission of the Oxford and Cambridge Universities, where Livingstone's fever pills are highly spoken of, but mild attacks of fever were cured by one dose of ten grains of quinine.

Regarding the hygienic condition of Natal in early times before European settlement, Pinkerton says, in his "Travels and Voyages" (1819), that Natal is unwholesome, but fertile; and Cape history relates the sad fate that befell the exploring party of Cowan and Donovan in 1808, who perished of fevers near Delagoa Bay on their journey to the Mozambique. In the *Journal of the Geographical Society* for 1833 will be found an excellent account of the district of Delagoa Bay by Mr. Cooley, in which he states that the place is unhealthy only during the summer rains, but that the interior highlands forty miles from the coast are always salubrious.

Some years ago, 1866-68, this remittent fever became epidemic, and spread over the Drakensburgen from the coast districts into the Orange River and Transvaal countries, and caused much anxiety by its ravages amongst the Europeans and inhabitants of the towns.

As to sanitary measures requiring to be suggested for the maintenance of the health of camps and posts from these fevers, it should at the present time be hardly necessary to allude to them, in view of the profuse literature existing on the subject, both military and civil. At all events, the carcasses of dead oxen should be removed to the leeward

or westerly side and to elevated spots for desiccation by the winds, and not be dragged into the rivers or water-courses for solution. Slaughter exuviae should be thrown into pits ready prepared, trenches should be dug for the reception of the excreta of the troops, and burnt lime should be used abundantly for all required purposes in the precincts of camps.

The water for the personal use of the men should, if possible, be separately obtained from springs, sunk wells, or by boring tubes, and not from the rivers or sluits, which should be reserved specially for the large herds of cattle and horses that usually accompany military forces on the march there.

Very graphic and painful details of the diseases met with on the coasts of Zululua, Delagoa Bay, and Mozambique will be found in the "Narrative of the Voyages of Captain W. F. Owen," who surveyed the coasts in H.M.S. *Leven* and *Barracouta*, from 1822 to 1826. Captain Hall also describes these coast fevers in his account of the "Voyage of H.M.S. *Nemesis*," in 1846, when he visited Delagoa Bay for the purpose of repairs to the first steamer that rounded the Cape bound from England to China.

The mortality of these fevers then was fearful: nearly the whole of the crews of Owen's ships were killed, and half of the officers. Extreme mental depression prevailed in those alive, and profound melancholy settled down on the men, who were haunted with the presentiment of death. The fevers were of short duration, with deep algide cold stage followed by intense febrile action and rapid circulation, accompanied with frenzy and delirium of a distressing and agonising character, and wound up by speedy sinking of the vital powers, collapse, and death. The treatment of these cases on board demonstrated the inutility of mercury and venesection after the fever had reached its crisis, but the doctors do not seem to have been aware of the use of quinine as a febrifuge, in the form employed afterwards successfully by Dr. Livingstone in his travels in the southern tropics of Africa.

An account is given of a native method of treatment for these fevers, which was used successfully by the people of Delagoa Bay, at the time of Captain Owen's narrative, amongst themselves. As soon as the patient feels the first symptoms he retires to his hut, where he is kept warm until some water, in an earthen vessel placed on the fire, is made ready by boiling. This is then placed between his legs, while he sits down on a stool and leans over the steam that arises from it, and inhales it and gets heated by it. In the meantime those around him envelope him in mats, in consequence of which he is soon covered with profuse perspiration, and nearly half suffocated by the heat and vapour. The whole covering is then suddenly cast off, and at the same moment he receives a shower of cold water all over his body delivered by the attendants. He is then hurried to the side of a large fire kindled in the hut, and then placed in a recumbent posture, while blood is extracted from him in small quantities by means of slight incisions on his shoulders, breast, and the backs of his hands. After this the patient is left to take rest and sleep, and subsequently some liquid nourishment is given, and he is then supposed to be convalescent. No mention is made of this plan of treatment having been applied to the fevers on board the ships.

The unhealthy season, Owen states, prevails from the beginning of September till the end of April—i.e., during the rainy season and during the summer months,—and the temperatures noted were 82° Fahr. in the shade, 85° under the trees, and 88° on the deck.

The sad history of these ships is now permanently handed down to posterity in the marks on these coasts of points and bays being named after their deceased officers, as Vidal, Durnford, etc., who there perished of these fatal fevers.

Another melancholy record of mortality on board ship there, in mediæval times, will be found in "Herbert's Voyages and Travels to Africa and Asia" (1638), when visiting the ports in the Mozambique Channel. "At which time many of your company died, imputing the cause of their Calentures (*Febris ardens*), Fluxes, Aches, Scurvies, Feavers, and the like, to the sulphurous heat there, stinking water, rotten meat, and worm-eaten biskits. But rather, I belcave, their over-eating themselves at Mohelia (Comoro Islands), where they farcinated their crude stomachs with unsalted flesh, and gulped down too much toddy, caused them. Here

our Admiral threw overboard 35 dead men, the *Hopewell* eleven, the *Starre* five, and every ship lost some, too many, if God had pleased otherwise."

In contradistinction to these sad accounts there will be found in the Annual Report of the Naval Medical Department for 1861-62 a more reassuring view of the nature of, and more intelligent grasp of the treatment of these fevers. It bears the marks of the fresh ideas enunciated by Dr. Livingstone, and of the practice founded thereon by his full experience in these regions for several years previously.

In 1861 there were reported sixty-five cases in the *Gorgon*, and sixty-seven in the *Orestes*, and the fevers were acquired in the Mozambique Channel, and in the mouths of the Zambesi and up its course inland during the time the Livingstone expeditions were going on.

This report by Dr. Ramsay, and the supplementary one by Dr. Mulvaney, are scientifically confident, and quite up to the occasion, and show that we have at length mastered an available view of their nature and the means for their treatment successfully.

This comprised cathartics first, followed by quinine in full doses, frequently repeated, so as to cause cinchonism to show itself in the patient. Effervescent were given for nausea, and vomiting was counteracted by sinapisms to the stomach, as used at the Cape also, and morphia was given for sleeplessness. Prophylaxis by administration of quinine was tried in the ships' crews, but it in general did not answer; as, for instance, two men in the *Pioneer* got seized by the fever who had been taking ten to twenty grains of it daily before.

In the Annual Report for 1865, Dr. Edwards, however, states that he had used it in the *Lyra* successfully when cruising in the Mozambique Channel, where his ship had seven cases, and the *Orestes* five cases, under treatment. The sequelæ of these fevers were found to be enlarged spleens, chronic ulcers of the legs, and œdema of the feet—localities in which were probably deposited the defunct germs of the infection that had previously run riot through the circulatory system.

From the imperfect sketch here given of the history of fevers in Southern Africa, it may be gathered that the Cape Colonies are liable to the invasions of febrile epidemics from without their confines, from Delagoa Bay, the Mozambique, and the Mauritius. That, also, the nature of these fevers becomes much modified by transportation from inter-tropical regions on the coasts to the more temperate climes of the Cape, and their mortality lessened by the influences of better hygienic conditions of air, soil, and living in the southern colonies.

The question may also be started, whether it might not become requisite to impose quarantine regulations at the ports of Cape Town, Elizabeth, and Durban, to check future visitations of these fevers from their hotbeds in the Mozambique, when they show any liability to become epidemic and to spread to adjoining countries.

The climate of the whole of these coasts is prejudicially affected by the existence of the lagoons and swamps of the St. Lucia Bay and the Umhlatoozi River along the coast, which are filled with a tepid water and decaying vegetation. The unhealthy vapours from these are blown inland by the easterly and south-east winds, always prevalent, rendering the air of Natal and Zululua muggy and relaxing.

ANNUAL DEATHS OF THE WORLD.—Has anyone ever sought to know how many persons die annually throughout the world? First we may cite some figures as to the total population of the earth, which may be stated at 309,000,000 for Europe, 824,000,000 for Asia, 199,000,000 for Africa, 4,500,000 for Oceania, and 85,000,000 for America, giving a total of 1,421,500,000 inhabitants of the entire world. Nearly 1,000,000 persons die annually in France, which gives 2800 deaths per diem in round figures. But France is one of the most favoured countries in a sanitary point of view. In many countries, where epidemics are almost continually prevailing, the mortality is a third higher than in France. Still, taking the numbers of deaths as it is observed in France, we obtain as the total of the annual deaths for the whole world 35,693,350—i.e., 97,790 persons die daily. As a compensation, the number of births is valued at 70 per minute, or 104,800 per diem.—*Union Méd.*, November 8.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

A CASE OF HYDATID TUMOUR OF THE LIVER— SUPPURATION: DISCHARGE INTO THE RIGHT PLEURAL CAVITY—EVACUATION—RECOVERY.

(Under the care of Dr. MOXON.)

WILLIAM T., a shoemaker, aged twenty years, was admitted on April 9. His previous and family history were both good, and in his account of his present illness he stated that until six months ago he had always been healthy. About that time, after a hearty meal, he was, while walking, seized with pain in the stomach, and a general feeling of fulness and discomfort in the gastric region. He made himself sick and felt much better after vomiting. Similar attacks recurred afterwards at intervals of a month or three weeks, each attack lasting five or six hours. The pain was very severe, and interfered with his sleep at nights. He was frequently sick, but never noticed any blood in the vomit. His bowels kept fairly regular. About a month before admission he had severe pain in the right side, and had been out of health for about a fortnight or three weeks. He had noticed that his motions were light in colour about three weeks ago, and that they remained so for about a fortnight. His urine also had occasionally been dark for a day or two at a time. He had never noticed that he was jaundiced. A week before admission he applied to the out-patients' department and saw Dr. Goodhart. He then complained of pain in his right side, which disappeared during the same evening. For three days before admission the pain had been constant, but not so violent as in previous paroxysms. He had also become somewhat jaundiced.

When admitted the following notes of his condition were taken by Mr. Wilson, the ward clerk:—"In general appearance patient is a fairly well-nourished young man; the skin all over the body has a decidedly yellow tinge, and the conjunctivæ are yellow. The tongue is furred; he complains of a sensation of fulness in the stomach after taking food; appetite is fair; bowels are regular. The abdomen is not generally distended, but there is a decided bulging of the right side in front over the region of the liver. A tumour can be felt extending from the margin of the ribs for about three inches towards the umbilicus. It moves with inspiration. There is great tenderness over that region, and almost constant pain. There is dulness over the same area; elsewhere liver-dulness does not extend below the margin of the rib. The urine is dark in colour, contains bile-pigments, is not albuminous, and deposits lithates; specific gravity 1030. The heart and lungs are normal. Temperature 100° Fahr." The following extracts from the hospital notes show the further progress of the case:—

April 20.—The jaundice has disappeared; the stools, at first light, but never absolutely devoid of pigment, are now dark-coloured. The pain in the hypochondrium continues, and the swelling is unchanged in character.

May 15.—There have been no changes to record in condition of parts. Dr. Moxon has said that the tumour is probably hydatid, but possibly gall-stones may be the cause of the trouble. On May 9 some dulness at the base of the right lung and slight crepitation were observed. To-day the dulness at base is distinct, and there is in the same quarter a good deal of sharp pain in breathing. Morning temperature 99°, evening 101°; pulse 120.

21st.—The signs of pneumonia of right base continue; there is some cough, and pain on inspiration. Temperature 99°.

29th.—The pain behind on inspiration has nearly disappeared. There is still crepitation and dulness over the lower part of the lung. The tumour in front has rather increased. Temperature 98·8°.

June 3.—He has been complaining of great pain in the tumour; he has lost his appetite. The urine yields a thick deposit of urates; specific gravity 1032; no albumen. There is ægophony and tubular breathing on the right side, on a level with the angle of the scapula. Lower down the dulness

is very marked, and there is a sense of resistance on percussion. There is now great pain over the right mammary region, but no abnormal sounds can be heard there. He does not sleep well, on account of the cough; sputum is rather excessive. He has had a morphia injection.

7th.—The tumour is more tense than it was; the cellular tissue over it is œdematous. Mr. Jacobson has seen the patient, and under the spray a trocar and canula were introduced into the tumour. A small quantity of thick pus was drawn off; no hooklets were found in this fluid.

11th.—There has been a little bloody expectoration, and the cough has been troublesome. The dulness at the right base continues, and there is now absence of breath-sounds in that region. To-day patient was put under the influence of ether, and Mr. Jacobson enlarged the puncture made on the 7th inst., vertically downwards for about an inch, to the transversalis fascia; a trocar was then introduced, and a quantity of pus drawn off. Afterwards the opening was enlarged by introducing a pair of dressing-forceps, and a quantity of hydatid membranes and small cysts tinged with bile came out. On introducing his finger, Mr. Jacobson found that the wall of the parent cyst was apparently breaking down. Two drainage-tubes were put in, and the wound was dressed antiseptically.

12th.—Temperature 100·7°; respirations 38; pulse 135. He complains of pain in the region of the wound, and has vomited occasionally. On dressing the wound, some pus and hydatid membranes came out of the cyst.

16th.—Temperature 100°; pulse 108. He suffered with sickness for a day or two after the operation, but is much better now. The discharge from the wound is less, and consists of almost pure bile, with a few hydatid skins. One large drainage-tube has been substituted for the two smaller ones.

27th.—The temperature has been little above normal. The bowels have been confined. He spat up some blood last night, and has been sick this morning. The wound is being dressed twice daily, as there has been some offensive discharge from it.

July 4.—Patient has been going on very well. The wound seems to be granulating up fast, and yesterday the drainage-tube passed in only for about an inch; the discharge has not been offensive. Last night patient slept very well without a morphia injection. To-day temperature is normal, but patient says he feels sick and has a feeling of fulness about the stomach. The bowels are confined. He has not coughed much lately, and there is no expectoration.

7th.—He has had a violent fit of coughing, and spat up a quantity of muco-purulent matter, in which there were no hooklets. Temperature 100·4°. There is some swelling and effusion into left elbow-joint.

8th.—Morning temperature 100·2°, evening 100·6°. The right side is very full, dulness extending behind from the fourth rib downwards, from the same level in front, and from rather higher in the axilla. Over that area voice-sounds are diminished, and there is almost total absence of respiratory sounds.

10th.—The feet are swollen, and patient has pain in left elbow. The cough is troublesome, but there is not so much expectoration. Urine, specific gravity 1038; full of lithates. Morning temperature 100°; pulse 112. To-day an incision was made by Mr. Jacobson with a scalpel in the mid-axillary line on the right side, between the fifth and sixth ribs; a trocar was introduced into the chest, and a small amount of pus drawn off. The orifice was then dilated with dressing-forceps, and a quantity of hydatid skins and pus came out. Another incision was then made, rather posterior to this and about three inches below, and a still larger quantity of pus and hydatid skins was evacuated. Mr. Jacobson introduced his fingers and felt that the pleura was very much thickened and covered with lymph. A large-sized drainage-tube was then introduced at the upper opening and brought out at the lower. The usual antiseptic precautions were observed. While operating, air rushed out of the artificial openings, showing there was a communication between the pleural cavity and the right lung. Temperature in the evening 99·2°; pulse 100.

11th.—Patient had two morphia injections last night. He has coughed a good deal since the operation, and spat up a quantity of rust-coloured sputum. Morning temperature 99·8°; pulse 110.

15th.—The drainage-tube was removed from the upper

opening a few days ago, and the wounds are healing up fast. Cough has been rather troublesome, and patient has spat up some purulent matter. Hydatid skins have been discharged from wound freely. The first wound in the hypochondriac region has almost healed. Temperature keeps about 99°.

21st.—Pain over the wounds in the thorax is troublesome to-day. The discharge has been tinged with bile, and the hydatid skins are freely discharged on to the dressing. Expectoration has been purulent and slightly bloody. The morphia injections are still being given at night. Temperature about normal.

28th.—Patient got up to-day for a short time. The discharge has been decreasing.

August 12.—He has been progressing very favourably, and has been once or twice carried into the grounds. The temperature has kept about normal, but has once reached 101° in the evening.

22nd.—The drainage-tube was taken out yesterday. The morphia injections are continued at night; and atropine has now been combined with the morphia to check sweating, which has been rather troublesome.

27th.—The atropine has checked the sweating. Patient complained last night of extreme pain, but is better to-day. He eats fairly well: has bacon and eggs for breakfast, a chop for dinner, and bread, milk, and beef-tea at different times in the day. Very little air enters at present into the right lung. Temperature ranges from normal to 100·2°.

September 9.—Patient has gone on well. Yesterday some hydatids were found on the dressings. Temperature normal.

18th.—A hydatid came away this morning. The morphia was discontinued on 12th inst., and although for a few nights there was restlessness, and in the daytime patient had slight diarrhoea, he is now better, and sleeps fairly well. Temperature normal.

30th.—He has complained lately of much pain across the abdomen, but is better this morning. In other respects he has been going on satisfactorily.

October 17.—The wounds still continue to discharge a little. Patient has had a somewhat troublesome cough, with considerable greenish-coloured expectoration. Temperature keeps about normal.

From this date the cough decreased and finally ceased, and the discharge has been getting steadily less. He is now (November 7) convalescent, a slight fistula remaining in the thoracic wall.

SURGICAL SOCIETY OF IRELAND.—On Monday, November 3, the following members of this Society were elected officers for the session 1879-80:—*President*: Edward Dillon Mapother. *Vice-President*: Alfred H. McClintock. *Council*: Edward H. Bennett, Charles Benson, Philip Bevan, William Colles, Anthony Corley, Henry Gray Croly, Edward Hamilton, J. Stannus Hughes, Archibald H. Jacob, Rawdon Macnamara, Humphrey Minchin, Edward Stamer O'Grady, George Hornidge Porter, B. Wills Richardson, William Roe, Philip Crampton Smyly, William Stokes, William Thornley Stoker, William Thomson, Jolliffe Tufnell, and William Wheeler. *Honorary Secretaries*: B. Wills Richardson and Jolliffe Tufnell.

CHRONIC AFFECTIONS OF THE MUSCLES AFTER TRICHINOSIS.—Dr. Wendt, in the *New York Medical Record* (October 6), relates a case of widely diffused and severe muscular pains observed in a patient who had more than a twelvemonth before partaken of raw ham, possibly trichinous. This conjoined with other cases which he had already published of chronic muscular symptoms following trichinous invasions, led him to the conclusion that several cases which are treated as muscular rheumatism are indeed cases of chronic myositis, with acute exacerbations, following trichinosis. As is well known, slight attacks of trichinosis often escape recognition, and even severe and fatal cases are frequently discovered by accident. And although in America ham and pork are not eaten raw as in Germany, yet cooking is not an absolute preventive; and altogether there is reason to believe that trichinosis is by no means so rare a disease as is usually supposed. There can be no doubt that the percentage of affected swine is very large in the United States, and no system of efficient inspection has been organised. [This is also a very important consideration for our authorities, seeing the large quantity of American pork and bacon that is imported.]

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Medical Times and Gazette.

SATURDAY, NOVEMBER 15, 1879.

THE ARMY MEDICAL DEPARTMENT.

NOTICE has been given by the War Office that an examination of candidates for commissions in the Medical Department of her Majesty's Army will be held on the 8th of next month; and it may be believed that this time the examination will really come off, since, though the new Medical Warrant has not yet appeared, a new Schedule of the necessary qualifications has been provided for intending candidates. The Schedule will be found elsewhere in our pages, together with comments upon it from an Army Medical Officer of long service and high official standing. The only points of information on which the Schedule anticipates the issue of the long-expected new Warrant are the limitation of the age of candidates to twenty-eight years, the abolition of the ten-years system, and the rates of pay and retired pay. The reduction of age-limit was to be expected; it was certain that the short system must be given up; and the new rates of pay are, as our correspondent observes, sufficiently liberal. But it is to the last degree unsatisfactory, and far from assuring, to be informed that "the terms of the new Warrant for the Department are not yet finally settled," though the rates of pay and retired pay have been sanctioned; and these were, we imagine, the only questions which have had to be submitted to the Treasury for approval. The conduct of the War Office with regard to the required new Warrant is pitiable in the extreme. After months of delay, public attention was directed, by the stress of war, to the scandalous condition of the Army Medical Department, and the War Office felt that something must be done; so notice was given of an examination to be held of candidates for commissions in her Majesty's Medical Service; and after a little while the notice was withdrawn and the examination postponed. This play was acted a second time, and the War Office plainly intimated that the Treasury was to blame for

the delay. The scruples of the Treasury have been satisfied; and now we have a third notice of an examination, and a new Schedule for the information of candidates, but still no new Warrant! "The terms of the new Warrant are not yet finally settled." Our correspondent assumes that of course the Warrant will be issued in a few days, but in this instance it would be rash to expect anything except the improbable. The Medical Department is in dire need of surgeons, and they must be had somewhere; and, considering this, and the hesitation, timidity, and spasms of activity exhibited by the Secretary of State for War, it is just conceivable that the Warrant may not be issued before the examination now appointed to be held. Even in that case, however, it is quite impossible that many candidates for the Service may present themselves, as no entrance examination has been held for a year, and some men have always been ready to enter the Service even when most unpopular. An uncertain number of recruits for the starving Department will be got, Warrant or no Warrant, and they will be hurried through Netley (perhaps Aldershot may *pro tempore* take its place), and sent on duty as quickly as possible; for while the old regulations stated that every successful candidate, at the entrance examination, would "be required to attend one entire course of practical instruction at the Army Medical School," that important little word "*entire*" is omitted from the similar clause in the new Schedule. But unless the Warrant does appear soon, and is found to contain satisfactory and positive reforms of which no hint is given in the new Schedule, "eligible candidates in sufficient numbers" will most certainly not be obtained. No increase of pay will by itself attract eligible candidates; and that the Secretary for War must, by this time, know full well. If he is capable of learning anything from the recent history of the Army Medical Department, he must have learnt that the only way of making the Service again attractive, sought after, and contented, is to do away altogether with the invidious, unjust, and galling distinction between her Majesty's "combatant" officers and her Majesty's medical officers, in respect of rank, privileges, honours, and rewards. This necessity must be frankly recognised and fully met, and then the medical officers will be proud of their Department of the Army. We need not again enumerate the grievances that have chiefly helped to make the Department shunned by young medical men. We have pointed them out and commented upon them over and over again, *usque ad nauseam*, and some of them are elsewhere alluded to to-day. With regard to one of them—the sick-leave question—we may observe that, unless we are greatly mistaken, the Secretary for War stated in the House of Commons, during the late session, that he had decided to place medical officers almost, if not altogether, on the same footing as "combatant" officers in that respect. But the strange and most unjustifiable delays that have occurred in bringing out the new Warrant have by no means tended to encourage hopefulness as to the character of its terms, or to restore the lost confidence in the good faith of Army Medical Warrants. And one of the greatest and saddest difficulties that the military authorities have now to cope with in dealing with the Medical Service is that of making medical men believe that the terms offered by any new Royal Warrant will be loyally and faithfully adhered to and fulfilled.

THE LOCAL TREATMENT OF PUTRID EXPECTORATION.

PUTRID expectoration is an accompaniment of various chronic affections of the lungs, and especially of bronchial dilatation. In the worst cases of this latter affection the patient is not only a nuisance to himself and his surroundings by the foul

odour of his sputa, but the stagnation of the bronchial secretion on which its putridity depends is dangerous to himself in two ways—by the irritation and inflammation it is liable to cause at the seat of its occurrence, and by the infection of healthy portions of lung by inspiration of some of the putrid matter. The uselessness of internal remedies in these cases is well known, and many of them have been and no doubt still are, *opprobria medicinx*. Treatment by inhalation, especially of the terebinthines, has been tried, with a certain amount of success more largely on the Continent than in this country, but the method adopted has been faulty. A few drops of the drug have been poured on the surface of hot water and inhaled for a few minutes two or three times a day, and a variety of cumbrous instruments have been suggested for this purpose. Two or three years ago, Dr. W. Roberts of Manchester described a simple portable "respirator inhaler," in the form of a metal box perforated in front and behind, and filled loosely with layers of tow on which the inhalation liquid was poured. This inhaler fits over the mouth, and is fixed by elastic bands over the ears like an ordinary respirator. The introduction of this instrument, although the medical profession as a body may have failed to recognise it, was undoubtedly a step in advance. It showed the practicability of a *continuous* method of inhalation. This method has for some time been extensively tried with an inhaler similar in principle to Dr. Roberts', by Dr. H. Curschmann, late of Berlin, and now director of the Hamburg General Hospital, who has done much not only to popularise it, and to do away with objections to its use, but to prove its value in the most positive manner. We propose, therefore, to devote the remainder of this article to an account of his system and its results.

His respirator itself is figured in the *Berliner Klinische Wochenschrift*, No. 29, page 430, and it is to be obtained from Duntzelt, 22, Schaaren-strasse, Berlin. It is made of vulcanite, and has a rim of soft india-rubber, where it touches the face, to insure close contact and prevent air entering the lungs except through the respirator itself. Dr. Curschmann generally covers both nose and mouth, so that all air which the patient breathes is saturated with the vapour in the inhaler.

The substances used for inhalation, and which are poured on a sponge in the front of the cavity of the respirator, are all well-known drugs—pure oil of turpentine, carbolic acid and thymol, either pure or diluted with from one to three parts alcohol, and creasote. Dr. Curschmann's application of them differs, however, from what most practitioners are accustomed to, in his using them either pure or, if diluted, but very slightly diluted; and yet most careful examinations of the urine after the prolonged inhalation of oil of turpentine never revealed the least renal irritation; nor did the patients complain of any unpleasant symptoms, except occasionally a little oppression of the head and headache. The same is true of the use of undiluted carbolic acid previously liquefied by a gentle heat. If care be taken to wipe the edge of the inhaler frequently where it touches the face, and to anoint the face itself with simple ointment, there is no local soreness; and Dr. Curschmann has never seen any irritating effect produced either on the inside of the mouth or on the larynx by the administration of the vapour of carbolic acid in so concentrated a form; nor has any instance of so-called carbolic "intoxication" occurred in his practice. This statement refers to adults, as he has had scarcely any experience with children. He explains the harmlessness of the pure acid when inspired, first by the small amount of it which evaporates and reaches the lungs at all; and, secondly, by the fact that the large part is, very soon after reaching the dilated bronchi or cavities, expecto-

rated with their secretion, and that the false membrane lining these cavities probably offers considerable resistance to its absorption into the system. Both carbolic acid and thymol evaporate much more freely in alcoholic solution than when pure; and Dr. Curschmann has almost invariably used thymol in this form alone. Alcoholic solutions of carbolic acid are more apt to cause paroxysms of cough than the undiluted acid. More patients, however, object to the use of thymol than of carbolic acid; but the former is, no doubt, safer for children's use than the latter.

Creasote never requires dilution, and on this point we are able to confirm Dr. Curschmann's experience, but it is very important to see that the druggist supplies a pure article. Curschmann prefers creasote in cases where there is a tendency to hæmoptysis: he finds that it not only has a styptic action and disinfecting properties as powerful as those of carbolic acid, but that its vapour is sedative and allays rather than excites cough. Incidentally he mentions that he has seen benefit result from creasote inhalations in the hæmoptysis of phthisis.

In illustration of the really wonderful effects of the continuous inhalation method in putrid bronchitis, Dr. Curschmann describes in detail two very severe cases of what in ordinary parlance would be roughly called "phthisis." In the first case the right lower lobe was affected, there was dulness to the angle of the scapula behind, with loud bronchial breathing, and abundant moist râles. The expectoration was very abundant, and so foetid that it was difficult to stay near the patient. Evening temperature 38.6° C.; pulse 100. The patient, a man of thirty-nine, had fallen away very much during his eighteen months' illness, and weighed only fifty-seven kilogrammes, though of large build. He was treated with inhalations of pure carbolic acid, at first for two or three hours at a time, and afterwards almost continuously. Within a few days the sputa had almost lost their foetor; within a month they were absolutely odourless. Simultaneously the temperature became normal, and the physical signs of dulness, etc., as well as the patient's general condition, steadily improved. Before leaving the hospital, and under inhalation treatment alone, he had gained nine and a half kilos, or about twenty pounds in weight. The second case is quite as remarkable. A man of fifty-three, who had been ill some months with symptoms of phthisis, was admitted under Dr. Curschmann's care in November, 1878, with dulness, bronchial breathing, and medium-sized moist râles over the lower half of the right lung posteriorly. At one point percussion was tympanitic, and auscultation revealed signs of a cavity, which was proved to be such by tapping and drawing off some of its foetid contents. The patient expectorated about a litre of most intolerably putrid secretion in twenty-four hours. His evening temperature was 39° C., his pulse 112, and he suffered from night-sweats. He was treated throughout with almost continuous inhalations, first of oil of turpentine, and then of pure carbolic acid. In three weeks the sputa were quite free from smell, fever and night-sweats had left him, and he only spat up about one-third of the amount on admission. As in the first case, there was an ultimate extraordinary disappearance of the abnormal physical signs, and the patient gained twenty pounds in weight during his scarcely six months' stay in the hospital. Except a little morphia for the cough just at the first, he took no medicine internally—no hypophosphites, no iron, no cod-liver oil. In both cases the successful result can be attributed to nothing except to the antiseptic treatment—for such it is—by inhalation. We commend the study of the complete history of these cases in the original to our readers, and urge on them a trial of the continuous method of inhalation in suitable cases. We have been surprised to find even physicians with a large *clientèle* of lung patients

unaware even of the existence of so simple and valuable an instrument as Dr. W. Roberts' respirator inhaler.

REPORT ON SMALL-POX AND DIPHTHERIA IN THE HOLYHEAD DISTRICT.

SEVERAL deaths from diphtheria having been registered, in the first quarter of the present year, in the Llanddonsaint and the Holyhead registration sub-districts of the Holyhead Union, and an outbreak of small-pox having occurred in the town of Holyhead, Dr. W. Ogle was despatched by the Local Government Board to institute inquiries regarding these epidemics. The following is a summary of his report:—

As regards the outbreak of small-pox, Dr. Ogle found that in an unregistered lodging-house in Holyhead, kept by a man named Roberts, the proprietor, his wife, and seven children (of whom four were unvaccinated) slept in one room, a man named Parry and a girl twelve years of age slept in a second room, and a man named Dunn with a wife and child in a third. Towards the end of May, Parry, who had often to go to Dublin, fell ill. His malady was not diagnosed as small-pox; but as some few spots appeared on his face during his illness, this was, in all probability, a mild attack of small-pox contracted in Dublin. That man recovered, but shortly after his attack the man Dunn fell ill with confluent small-pox, and died; and three of the Roberts family were down with the disease at the time of Dr. Ogle's visit. There are available two small hospitals for the isolation of infectious diseases, and Dunn was willing to be moved there, but the appeals of Roberts, the lodging-house keeper to the local board, and to the inspector of nuisances, had been fruitless, principally, Dr. Ogle believes, because the Board is not provided with an ambulance for the removal of infectious cases. The Board had, however, given orders that the occupants of this overcrowded house should remain strictly confined within doors. Dr. Ogle protests against such feeble measures as this for endeavouring to stamp out an outbreak of small-pox; and he felt bound to call the attention of the authorities to the overcrowded condition of the house, and to the fact that four children out of a family of seven were unprotected by vaccination.

There was no medical officer of health at the time of Dr. Ogle's inspection—a fact which proved a serious drawback to his obtaining reliable information on the subject of the outbreak of diphtheria, although the gentleman who had previously filled that post rendered all the assistance in his power. The death-registers afforded some evidence that diphtheria had probably been more or less prevalent in the locality for upwards of a year, since eleven deaths from the beginning of 1878 to March, 1879, though registered as cases of croup, or sloughing sore throat, were suspected, on subsequent inquiry, to be attributable to diphtheria. The first death actually registered as due to diphtheria in the Holyhead sub-district was on March 3, 1879, and from that time to June 16 six more deaths were registered from the same cause, as well as two from croup. The cases that occurred in 1878 would seem to have been scattered irregularly through the town, but at the beginning of the present year the epidemic developed itself specially in an outlying suburb, where Dr. Ogle eventually succeeded in tracing the outbreak to a dame's school, which accommodated, before the disease appeared, about thirty children. The single schoolroom was found to be eight feet high, eight feet wide, and eleven feet long, with only one small window; so that the children must have been packed almost as closely together as if they had been sleeping in the same bed. The attendance had fallen, since the outbreak, from thirty to ten. Of the twenty who had ceased to attend, Dr. Ogle could account for no less than nineteen as having had diphtheria,

of whom six had died. Had there been a medical officer of health, Dr. Ogle observes, to inquire into the outbreak, the palpable influence of this school could not possibly have escaped his notice, and thus the course of the epidemic might have been cut short. The rest of the town of Holyhead and its immediate neighbourhood were, during the past year, visited by diphtheria in a sporadic form. With the very imperfect information at his command, Dr. Ogle entirely failed to discover any connecting link between the houses attacked. There was no obvious community between them as regards either milk, water-supply, sewerage, school and chapel attendance, occupation, or social intercourse. The origin of the infection, Dr. Ogle adds, can but be a matter of surmise: it may have been imported from without, since Holyhead is a busy port; or it may have been generated on the spot. For Dr. Ogle remarks, that if the belief entertained by many be correct, that under certain conditions diphtheria can be generated *de novo* from filth, then most assuredly Holyhead is the very place for such an origin.

Dr. Ogle next proceeded to investigate the causes of the outbreak as connected with Llanddonsaint, but he found that the difficulty of obtaining information was even greater in this sub-district than in Holyhead; for, besides the fact that the houses in which diphtheria was known to have occurred were scattered over a very wide area, few of the persons from whom important particulars had to be obtained could speak English. The first case in this sub-district is set down as having occurred in December, 1878, at a farmhouse near the village of Llanddonsaint. A fatal case of croup had just previously been registered in the immediate neighbourhood, and Dr. Ogle found some reason to believe that there had been communication between the farmhouse and the cottage where the fatal croup case occurred. From this time to the end of April, when the outbreak seems to have subsided, thirteen houses in all, so far as could be learned, were attacked. These houses were widely scattered, and were most of them isolated farmhouses, with no direct communication. The only possible or partial solution of the problem was infection through attendance at the same chapel. It was elicited that out of the thirteen houses affected, the inmates of no less than eight went to the same chapel. This chapel, moreover, was attended by the family from the farmhouse first attacked, so that it is not impossible that the infection may have spread by this means to the seven other houses. Again, one or two of the occupants of these eight houses went at times to another chapel, and there came in contact with a woman from a ninth house, who fell ill a few days after the interview. In seven of the nine houses proved to have been connected by chapel attendance, the first case of illness was in a person above school age, and this unusual proportion of adults may be accounted for by the fact that in the bad weather prevailing at that time of the year the young children were not taken to chapel. To the objection that persons suffering from diphtheria would hardly be likely to attend chapel, Dr. Ogle thinks that it is important to insist upon the fact that the diphtheritic poison hangs about persons, and can be transmitted by them, for a much longer period after apparent recovery than is usually supposed. He himself is in possession of evidence proving that a person who has been apparently quite convalescent for more than two months can still infect others. On the whole, the evidence obtained strongly favoured the conclusion that chapel attendance was in this instance one of the main agencies by which the infection was transmitted. As in the case of the town of Holyhead, whatever filth could do in fostering disease, it had ample opportunity of doing in this sub-district, where there had been no inspector of nuisances for more than a year. The total number of cases of diphtheria in the

Llanddonsaint sub-district, as far as could be ascertained, was about forty-eight, and of these twelve were fatal. Dr. Ogle concludes his report with several recommendations which have for their object an improvement in the sanitary conditions of the localities visited.

THE WEEK.

TOPICS OF THE DAY.

THE oft-debated question, whether the navigation of the river Thames has been affected by the diversion of the metropolitan sewage into the stream at the northern and southern outfalls of the system, is at length about to be thoroughly considered, and if possible solved. With this end an inquiry was commenced last week at the Institution of Surveyors, Westminster, before Sir C. Hartley, the umpire appointed by the Board of Trade. The question at issue is between the Thames Conservancy Board, who have elected Captain Douglas Galton to act as arbitrator on their behalf, and the Metropolitan Board of Works, whose arbitrator is Mr. Bramwell, C.E. Both Boards are represented by eminent counsel, and from the opening statement of Mr. Pope, Q.C., on behalf of the Thames Conservancy, we gather that the present inquiry is entirely apart from any question of the pollution of the river in a sanitary point of view, but is mainly directed to a consideration of the point, whether or not the navigation has been impeded through the masses of solid matter finding their way into the stream through the two outfalls—a statement which, if established, would impose upon the Board of Works the necessity of taking steps for the removal of any obstruction found to exist. In spite of the declaration that the present inquiry is not based on sanitary motives, the decision will, nevertheless, be awaited with some curiosity, since it is difficult to understand how, if the Thames Conservators establish their case, the question of pollution can altogether be eliminated from the proceedings.

At the last meeting of the City Commission of Sewers, Dr. Sedgwick Saunders, in referring to the closing of the Greystoke-place Board School, said that the concession on the part of the School Board had not come a moment too soon, for the whole neighbourhood seemed saturated with infectious disorders. It had been found necessary for the time to close an adjoining school, St. Dunstan's, Fetter-lane, and also, on account of an outbreak of measles, Billingsgate Ward Schools. Dr. Saunders further stated that he had personally visited all the schools in the City—parochial, ward, and charity—and he had found that the total number of scholars on the books was 4950, and that the absentees amounted to 5.85 per cent. In the Greystoke School they amounted to 29.33 per cent. The schools were generally in a good sanitary condition, but nevertheless there were many defects which ought to be remedied. The Commissioners, on the Medical Officer's advice, agreed to serve notices on the managers of the schools to make the needed improvements forthwith.

The town of Leeds has set a magnificent example in the matter of water-supply, and last week the ceremony of opening the last of three great reservoirs for supplying the district was performed by the Mayor of Leeds. In 1867 the consumption of water in the town was found to exceed 5,000,000 of gallons per day, and further sources of supply had to be arranged for; accordingly the Corporation sought for Parliamentary powers to construct the Lindley Wood, the Swinsty, and the Fewston Reservoirs on the River Washburn. The Lindley Wood Reservoir was commenced in August, 1869, and finished in November, 1875, at a cost of £199,000. The Swinsty Reservoir was commenced in February, 1871, and finished in January, 1877, and cost

£165,000; and the present, the Fewston Reservoir, was begun in July, 1874, and was finished on the 1st of the present month at an expense of £150,000. In the course of last week's proceedings, the Mayor remarked that these works had been carried out without a single penny of rate having been levied on the town; the profits on the water had been sufficient to pay the interest on the capital, and to leave a surplus besides. Moreover, the water was caught, carried a distance of ten miles, and delivered to consumers at the rate of 1½d. per ton, and Leeds was now in possession of one of the finest, if not the very finest, system of waterworks in the kingdom. Whilst on this topic, it may be stated that the poll recently taken amongst the ratepayers of Liverpool, under the Borough Funds Act, to determine the question of obtaining a supply of water for the town from the River Vyrnwy, resulted in a majority of 2660 for the adoption of the scheme—21,974 votes being recorded for it, and 19,314 against it. The project was strenuously opposed by a local association of house-owners, and as over 80,000 voting-papers were issued, it appears that nearly half of the voters abstained from coming to a decision on the question.

The first case in the Midland district under the Rivers' Pollution Act was recently heard by the Judge of the Leicester County Court. The Rural Sanitary Authority of Lutterworth Union applied, under the sanction of the Local Government Board, for an order against John Read, fellow-monger and tanner, to abstain from polluting a stream at Shearsby. The evidence showed that the defendant has two large works, each of which is on a separate tributary of the same stream. In one tributary were washed, not only those parts of the fleeces with excrementitious matter, but also a large number of skins gathered from all parts of the world. These skins, it was suggested, were prepared with poison—probably arsenic,—and the result was that the tributary, which just before it entered the defendant's works was so clear and pure that it could be used for drinking and domestic purposes, was a thick, bad-smelling stream after the defendant had used the water. The Judge did not consider it either desirable or practicable to order the defendant to buy land at an enormous cost for the purpose of carrying out a system of irrigation, and it was decided that some skilled person should examine the place and advise the Judge as to what works were reasonably practicable to prevent the pollution for the future.

Last week the Baroness Burdett Coutts attended at the St. Pancras-gardens for the purpose of personally presenting to the Vicar, churchwardens, and Vestry of St. Pancras what is termed a memorial sun-dial, standing upwards of thirty feet in height, which has recently been erected at the expense of her ladyship, at a cost of over £2000. It will be remembered that some time since the Vestry of St. Pancras, with the approval of the ratepayers and the assistance of Lady Burdett Coutts, the Duke of Norfolk, and others, successfully resisted the attempts of the Midland Railway Company to obtain possession of the Old St. Pancras Churchyard, as well as the adjoining cemetery of St. Giles's, and they determined, if possible, to retain and preserve the grounds for the recreation of the public, especially the poor of the surrounding neighbourhood. The memorial sun-dial is intended to commemorate not only the reclamation of the disused and dilapidated burial-grounds and their conversion into a beautiful ornamental garden for the recreation of the poor, but also to mark the resting-place of many illustrious persons whose remains were interred in the vicinity. The superstructure is in the "early decorated" style, and consists mainly of Portland stone with four marble tablets, and clustered granite columns at the angles. After inspecting the memorial, the Baroness formally presented the key of

the gates of the enclosure to the Rev. Canon Spence, and explained the motives which had induced her to undertake the work now so successfully completed. A banquet was afterwards given to Lady Burdett Coutts and the other visitors in the St. Pancras Vestry Hall.

Another case of death from an overdose of chloral is reported from Carlisle. Dr. William Hay, of that town, was found dead in bed on the afternoon of the 6th inst. Medical assistance was immediately procured, but it was found that life was quite extinct. Dr. Barnes and Dr. Sullivan, who had made an internal examination of the body, were examined at the inquest which was held before Dr. Elliot, the city coroner. They both deposed that the appearances presented were quite consistent with the opinion that death had been due to an overdose of such a narcotic as chloral. Although Dr. Hay was a large man, the heart was particularly small, and the muscular walls weak and flabby. In summing up, the coroner alluded, at some length, to the treacherous nature of chloral, which, he showed, was not always even in its action, although taken habitually. The case came under the head of what was called death by inadvertence, and the jury returned a verdict accordingly. Dr. Hay had been for some time medical officer of one of the districts of the Carlisle Union.

At a meeting of the Cambridge Sanitary Authority, held at the beginning of this week, it was reported that the Local Government Board had been informed, in reply to a letter on the sewage question, that the special committee having the matter under consideration were not yet fully satisfied that Sir Joseph Bazalgette's scheme is the best that can be devised for the diversion of the sewage from the Cam, and that the delay in passing a valuation Bill, by which the pecuniary contribution of the University and town to a sewerage scheme would have been definitely settled, renders it impossible, until such a Bill is passed, to undertake a scheme of sewerage involving such great outlay.

It is stated that the Corporation of Dublin has under consideration an improvement scheme upon a large scale, which contemplates the sweeping away of a considerable area in the worst part of the city, under the Sanitary Acts. Part of the area indicated is close to the Castle, and, should this scheme be agreed upon, it is expected that it will to some degree anticipate the report of the Royal Sanitary Commission.

COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES AT EDINBURGH.

By the new Edinburgh Municipal and Police Act (1879), the northern metropolis is added to the list of towns which have adopted the principle of the compulsory notification of all cases of infectious diseases. By the 208th clause of the Act, which came into operation on the 7th inst., all medical practitioners are required, under the penalty of a fine for omission of the duty, to report to the medical officer of health every case of infectious disease occurring in their practice, within twenty-four hours after such disease has been recognised. Printed forms stamped for postal transmission are supplied on application; and for this additional and responsible duty the practitioners are to receive 2s. 6d. for each case reported and found to be really one of an infectious disease.

THE BUST OF MR. SPENCER WELLS.

THE beautiful marble bust of Mr. Spencer Wells, executed by Dr. Richard Liebreich, and exhibited at the Royal Academy, was presented to the New York Academy of Medicine by its President, Dr. Fordyce Barker, at a meeting recently held for the dedication of a new library hall.

A FORESHADOWING OF THE NEW ARMY MEDICAL WARRANT.

THE next examination for candidates for the Army Medical Service is appointed to take place upon the 8th proximo, at the rooms of the Law Institution, Chancery-lane. From this fact it may fairly be assumed that the issue of the new Warrant for the Department will be made in the next few days; meanwhile, in the "Schedule" which has been issued for candidates, the following alterations have to be noted:—The limit of age for admission to the Service has been reduced from thirty-two to twenty-eight years; and though it is stated that the terms of the new Warrant are not finally settled, the rates of pay and retired pay have been settled and sanctioned. These rates of pay show a decided improvement as regards the higher ranks of the Service: thus a Surgeon-General will in future be entitled to draw pay at the rate of £2 15s. per diem, we presume on appointment, instead of £2 as at present; a Deputy Surgeon-General £2 instead of £1 10s. The new grade of Brigade-Surgeon, recommended for adoption by the War Office Committee, has been sanctioned, the pay of the rank to be £1 10s. per diem on appointment, and £1 13s. per diem after 5 years' service in the rank. Each Surgeon-Major is to receive £1 per diem on reaching that rank. This is the same as at present; but whereas the old Warrant only gave an additional 5s. per diem after 6 years' service in the rank, the new scale provides for an extra 2s. 6d. per diem after 15 years' service, 20 years' service, and 25 years' service, making the total pay of the Surgeon-Major after that period £1 7s. 6d. per diem. The Surgeon on first appointment is to receive pay at the rate of £200 per annum, to be increased to £250 per annum after 5 years' service, and after 10 years' service the pay of this rank is to be at the rate of 15s. per diem. The pay of a "Surgeon on Probation" is fixed at 8s. per diem. But all these rates of pay specified are exclusive of allowances for lodging, fuel, light, and for servants. The "Schedule" further speaks of a gratuity to be granted to Surgeons and Surgeons-Major after 10, 15, and 18 years' service, but the circumstances under which this is to be awarded are not stated in the Schedule. The next alteration to be recorded is in the scale of retired pay:—A Surgeon-General is in future to receive £2 per diem instead of a maximum of £1 17s. 6d.; a Deputy Surgeon-General £1 15s. in lieu of a maximum of £1 5s. 6d.; a Brigade-Surgeon, after 20 years' service £1 7s. 6d., and after 30 years' service £1 10s.; a Surgeon-Major is to be granted £1 per diem after 20 years, £1 2s. 6d. after 25 years, and £1 5s. after 30 years' service; whereas under the old scale these officers only received 16s. 6d. per diem after 20 years, and £1 after 25 years' service. A special scale of pay has also been instituted for medical officers retiring on temporary half-pay. No alteration would seem to have been made in the relative rank of officers of the Department, except that it appears that the Surgeon is to rank as captain on appointment, instead of having to wait for the completion of six years' full-pay service to give him the benefits of such rank. The foregoing is all in the shape of alteration that can be gathered from a comparison of the old "Schedule" with the new; no fault can be found with the liberality of the pay, but there are other and equally important points which the new Warrant will have to clear up before it can be said to be fairly satisfactory, and with the forthcoming examination fixed for such an early date the authorities should lose not a moment in placing it before the profession.

DUBLIN HOSPITAL SUNDAY.

LAST Sunday, November 9, was Hospital Sunday in Dublin. Collections in aid of the fund were made in all the Protestant

places of worship in the city and suburbs, as well as in many churches throughout the province of Leinster. From 1874 to 1878, inclusive, a sum of £18,000 has been divided amongst the participating institutions through the agency of the fund. This year fine weather favoured the collection, which will not, we hope, show any falling off as compared with past years. The preachers in many instances alluded to the commercial and agricultural distress so prevalent of late, and expressed an earnest hope that the hospitals, which now stood more than ever in need of help, would not suffer from a mistaken and false notion of economy. We are glad to say that the returns which have so far been published show no appreciable falling off in the collection.

PROFESSOR BALL'S CLINIQUE.

WE are glad to find that Dr. Ball, who was chosen Professor of Mental Diseases in the Paris Medical Faculty some two years since, but who has never been able to deliver a lecture in consequence of no service having been assigned to him at any of the hospitals, is now advertised to commence his course at the Sainte-Anne Asylum on the 16th inst.

THE STOCKWELL FEVER AND SMALL-POX HOSPITALS.

THE eighth annual report of the Committee of Management of the Stockwell Fever and Small-pox Hospitals has been published, and gives all the various details for the year 1878. In the Fever Hospital, on January 1 of last year, fifty cases remained under treatment, and during the year 733 fresh cases were admitted. Of these 509 were discharged cured, and 138 died, leaving 133 under treatment on December 31 last. It is considered worthy of remark that during the months of October and November the cases of enteric fever received were so numerous, that the pavilions appropriated to typhus were nearly filled with these cases, and it was considered necessary to apply to the Local Government Board for sanction to erect an additional pavilion, which would provide twenty-four beds for any typhus cases requiring the use of them. In the Small-pox Hospital 99 cases remained under treatment on January 1, 1878, and up to July 15 of that year 736 additional patients were admitted. Of these 698 were discharged or transferred, and 137 died. During July of 1878 the number of cases received was so small that the Committee decided that the Small-pox Hospital might safely be closed for cleansing and repair; it was accordingly disinfected by chlorine gas, and handed over to the contractors, and, although 300 workmen were employed on the duty, none of them contracted small-pox. The Committee state that during the great epidemic of 1871-72, 3020 deaths took place in the hospitals under the management of the Asylum Board, and 6623 patients died at their own homes. During the epidemic of 1877-78, 2028 deaths took place in the managers' hospitals, and 1932 in private houses. In the former epidemic, therefore, more than two-thirds of the number of cases were treated at home, whereas, during the latter, the greater number of patients have been treated in hospital; and from this fact the Committee are inclined to infer that the danger of keeping cases of infectious disease at home is now more fully recognised, and the value of hospital treatment and isolation more duly appreciated. But this inference undoubtedly requires further confirmation. One of the members of the Committee of Management—Mr. Soper—has perfected an apparatus for disinfecting the sewage from infectious hospitals, and in July of 1878 he fitted the same at Stockwell, so that a constant stream of chlorine is generated below the surface of the sewage flowing through the drains. (We noticed Mr. Soper's invention some time ago.) Smaller modifications of the apparatus, adapted for chamber use, have been placed in the

enteric and typhus wards of the Fever Hospital at Stockwell. The statistical returns of Mr. P. H. McKellar, Medical Superintendent of the Fever Hospital, and Mr. F. R. Bernard, Medical Superintendent of the Small-pox Hospital, are appended, as usual, to the Managers' report.

THE REGISTRAR-GENERAL'S RETURN FOR IRELAND:
SEPTEMBER QUARTER, 1879.

DURING the quarter ended September 30 last there were registered in the 799 registrars' districts in Ireland 32,918 births, a number equal to an annual birth-rate of 24.6 in every 1000 of the estimated population, and 20,423 deaths, representing an annual mortality of 15.2 per 1000. In England during the similar period, the birth-rate represented was 34.4, and the mortality 16.4 per 1000. The birth-rate in Ireland was 0.1 under the average of the corresponding quarter of the five years 1874-78, whilst the death-rate was 0.7 in excess of the average for the same period. The principal zymotic diseases caused fewer deaths than at the corresponding period of last year, the rate of mortality from these affections being 37.2 per 100,000 of the population, against 51.1 for the third quarter of 1878. The slight increase in the mortality from all causes is mainly attributed to the continuance of the inclement weather, and possibly, in some degree, to the increase of poverty, as shown by the returns of persons receiving relief, in which a considerable excess over the average is observed. Generally speaking, the public health has materially improved during the quarter under review, as compared with the first two quarters of the present year; but, nevertheless, it cannot be considered very satisfactory, inasmuch as the death-rate is above the average, and severe epidemics have prevailed in some districts—notably small-pox in Dublin and suburbs, scarlatina in Cork, whooping-cough in Belfast, and measles in some portions of the south-west division of Ireland. During the same period the death-rate in England was 16.4, against an average of 20.2, showing a decrease of 3.8 upon the average death-rate of England in the third quarter. In the second quarter of the present year the English death-rate was slightly below the average, and, in spite of the extremely severe weather which prevailed during the first quarter, it was but 1.1 above the average. In Ireland during the first quarter it was 3.2 above, in the second 1.9 above, and again in the third 0.7 above the average. It would thus appear that, during the present year, the public health in Ireland has been becoming worse, while in England it has been improving—an entirely unsatisfactory state of things which cannot be accounted for by the weather, which was not more unfavourable in Ireland than in England, or by the state of trade, which does not appear to have had so great an effect in Ireland as in England.

PROFESSOR RÜDINGER'S NEW SECTIONS.

A CORRESPONDENT of the *Allg. Wien. Med. Zeit.*, of October 21, states that at the meeting of the Munich Medical Society, October 16, Professor Rüdinger exhibited some remarkable results of his manipulation of the human body by frozen sections. Eight of these are carried longitudinally from the crown of the head to the sacral region, and are so connected together that they can be opened or closed just like the leaves of a book—the fourteen surfaces when exposed exhibiting in their natural form and colour all the anatomical details of the various organs. "A most interesting spectacle it was," says the writer, "to have the body in the erect posture before you, and opening or shutting any of these sections. A more complete demonstrative object for clinical instruction cannot be conceived." The exhibition excited a complete enthusiasm among the members of the Society, and Professor Ziemssen designated it a "European unicum."

THE TRANSFERENCE OF SENSIBILITY IN METALLOSCOPY.

DR. TH. RUMPF, of Düsseldorf, in a lecture delivered before the Association of South-West German Neurologists (*Berliner Klin. Wochenschrift*, No. 36, 1879), describes some experiments which to a certain extent explain the metalloscopical "transfer" as a normal phenomenon in healthy subjects. He observed the effect produced by friction of the skin of one limb with spirits of mustard, and by the application of metal plates artificially cooled, artificially warmed, and of the same temperature as the surrounding air, and the sensibility was tested on both sides of the body by the old method of observing the distance apart at which the points of a pair of compasses are perceived as two points. He found that in healthy persons the sensibility of corresponding parts of the two sides of the body undergoes considerable variations, and that irritants to both sides can simultaneously increase or diminish it. This observation weakens the theory that diminished sensibility on one side *must* be compensated for by hyperæsthesia on the other, and *vice versa*. Secondly, Dr. Rumpf made out that a unilateral alteration of sensibility by irritants produces an opposite effect on the corresponding part of the other side, and that the normal sensibility of the two sides becomes gradually restored by a series of alternate positive and negative fluctuations (*Schwankungen*) of sensibility in the two corresponding regions. When metal plates are used, there are two effects which must be discriminated—that of the initial difference of temperature of the plate and the skin, and a very feeble one which manifests itself after an interval, and which depends on an increase of sensibility on the side to which the plate was applied, and its diminution on the opposite side. The period during which the different fluctuations above mentioned last is materially dependent on the duration of the primary irritation, being, roughly speaking, directly proportional to the latter. Dr. Rumpf thinks two hypotheses of the "transfer" deserve attention: either we may refer it to reflex dilatation of the bloodvessels of the part itself (Westphal), or to changes in the calibre of the vessels of the central sensory organs which innervate the part in question. He thinks the second hypothesis may perhaps explain the fact that gentle prolonged irritation of the skin so readily causes sleep.

THE GENERAL MEDICAL COUNCIL.

WE understand that the Executive Committee of the General Medical Council have been summoned to meet on Friday, the 28th inst.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN OCTOBER.—The following are the returns (by Dr. Meymott Tidy) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, etc.	Nitrogen: As Nitrates, etc.	Ammonia.		Hardness. (Clarke's Scale).	
				Saline.	Organic.	Before Boiling.	After Boiling.
<i>Thames Water Companies.</i>	Grs.	Grs.	Grs.	Grs.	Grs.	Degs.	Degs.
Grand Junction ...	21.40	0.103	0.135	0.000	0.008	13.70	4.60
West Middlesex ...	21.40	0.111	0.129	0.000	0.010	13.70	4.20
Southwark and Vauxhall ...	21.60	0.088	0.117	0.000	0.008	13.20	4.20
Chelsea ...	21.00	0.085	0.138	0.000	0.008	13.70	4.60
Lambeth ...	21.10	0.092	0.148	0.000	0.009	14.80	4.30
<i>Other Companies.</i>							
Kent ...	29.46	0.022	0.480	0.000	0.005	19.40	6.50
New River ...	21.00	0.052	0.126	0.000	0.006	13.70	4.30
East London ...	20.00	0.086	0.144	0.000	0.008	14.30	4.20

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours. The water was found to be clear and nearly colourless in all cases.

THE FORTHCOMING WARRANT FOR THE ARMY MEDICAL DEPARTMENT.

(From a Senior Officer of the Medical Staff.)

It will be seen from the advertisements in your columns, and in those of your contemporaries, that the Secretary of State for War at last makes a bid to induce junior members of our profession to recruit the skeleton ranks of the Army Medical Department. Schedules of the qualifications necessary for obtaining commissions, with the conditions of service, have been extensively issued, and on December 8 next an examination, expected to be competitive, will be held to test the eligibility of those candidates who, in the trustfulness of youth, may not be affected by any of those deterrent influences which, to the minds of others more deeply imbued by suspicion, may seem insuperable. It is to be regretted that, after such prolonged consideration of the terms suggested by the Committee appointed by Lord Cranbrook, the Secretary of State for War should at last precipitately hold out in one hand, towards the hesitating and timid class whom he seeks to lure, the glittering bait of increased immediate and retired pay, and other undeniable advantages, while in the other hand looms the awkward admission that the "terms of the new Warrant for the Department are not finally settled." Such a disheartening intimation cannot be let pass without a reminder being given, to those whom it may concern, of the nature and importance of some of the points which must be finally settled, before it can be admitted that all the causes, which have for so long prevented candidates coming forward in sufficient numbers for the Army Medical Department, have been recognised and removed. Among the most important of these is the harsh and unjust rule by which medical officers in bad health, contracted "in and by" the service, have hitherto been placed on temporary half-pay after having had six months' leave, whereas under similar circumstances officers of the combatant branch can obtain, through repeated extensions, sick leave up to eighteen months or two years. Next comes the unequal distribution of honours and rewards. Need I for an illustration of this go further than the solitary Companionship of the Bath conferred upon an administrative officer of the British Medical Service after the imaginative termination of the first Afghan campaign, or the delay in the bestowal of the Victoria Cross upon the medical officer who did such gallant service in the defence of Rorke's Drift? The depth and width of the great gulf fixed between medical and combatant officers in the social recognition of their services have been fully shown by the contrast between the visit of the combatant hero of Rorke's Drift "by command" to Balmoral, and the relegation of the medical hero of the same fight to report himself for duty to the Principal Medical Officer in Ireland. Such a sentimental point as this of course cannot find place in a Royal Warrant, but, had it not arisen, men might have more hopefully and less suspectingly submitted to the persistent delay in the publication to candidates for the Army Medical Department of the full statement of the terms which the Secretary at War may feel inclined to offer. On behalf of the medical officers already in the Service, as well as in the interests of intending candidates, the profession has also a right to expect explicit information as to how far the Secretary of State may intend to reinstate Medical Officers of the Army in the position and privileges accorded to them by Lord Herbert's Warrant of 1858, well called the Magna Charta of the Department, but which from time to time, through subtly devised Army Circulars and General Orders, were gradually nullified or withdrawn by the military authorities. In the scale of relative rank, in the new Schedule before us, it will be observed that in the case of officers of the new rank of Brigade-Surgeon, and of Surgeons-Major over twenty years' service, no reference is made to the juniority of these officers to lieutenant-colonels in their relative rank, but it would have been more satisfactory had a definite statement been made that such invidious juniority shall no longer exist, the

rank being fixed according to date of commission. The final intentions of the Secretary of State on the forage question are also still unknown.

Although I believe that any reversion towards the regimental system would be retrograde, and detrimental to the future highest interests of the Department, it would be well that candidates should be informed on this point before finally deciding. As to the name by which Army Medical Officers may in future be designated, it is almost a matter of indifference. Such associations and traditions as may belong to the Army Medical Department would still belong to medical officers in military service, under whatever name they may be known. But on each and all of these points, as well as on others not now noticed, it would have been preferable that the War Secretary should have had his mind made up before coming before the profession and the public to seek for candidates for medical service in the Army; and it is very desirable that, in the interval which still exists before the intended examination, the Warrant in all its details should be finally published.

With the exception of the omissions above noticed, the conditions of service published in the Schedule are sufficiently liberal. The only departure from the recommendations of the Committee in the matter of pay is that Surgeons-General, instead of £3 are to have £2 15s. per diem. Among the small number of officers of that rank on the establishment, the decrease of expenditure will be under £1000 per annum, so that probably economy alone was not the reason for deciding on the lower rate of pay. But, considering that for the last five-and-twenty years the daily pay of Commissaries-General has been £3, there is some inconsistency in giving five shillings less to Surgeons-General. The steady flow of promotion into the highest rank next to that of the Director-General is more likely to be attained by fixing the difference between full and retired pay at a low figure. It appears from the Schedule that in the case of Surgeons-General and Deputy Surgeons-General the progressive increase of pay which still applies to the lower grades is to be discontinued; also that retirement is to be optional in these ranks, without any fixed minimum period of service in each. In the junior ranks early retirement at periods of service fixed at ten, fifteen, and eighteen years, on gratuities of £1250, £1800, and £2500 respectively, will be optional. The retired pay of Surgeons-Major will increase from £1 daily after twenty years' service to £1 2s. 6d. after twenty-five, and £1 5s. after thirty years' service. Brigade-Surgeons, after twenty years' service, may retire on £1 7s. 6d., and after thirty years' service on £1 10s. daily. It may hence be inferred that the rank of Brigade-Surgeon, and it may be supposed likewise that of Surgeon-Major, may be reached as the reward of distinguished service, and permanently retained, without, as has hitherto been the case, being liable to supersession on the earlier completion of any fixed period of service by other medical officers.

The tendency of all these changes will be to maintain the flow of promotion, and if the forthcoming Warrant be equally just and liberal in all minor details, and be carried out, not only to the letter, but in the spirit in which it may be intended to be understood, it may be honestly said that the Medical Service in the Army presents a career possessing many attractions, and comparing favourably, both socially and pecuniarily, with most other branches of the public service, and even with the average prospects of ordinary private practice. To the Government and to the military authorities, on the supposition that the terms offered by Royal Warrants will be loyally adhered to and fulfilled without infringement or drawback, the hope and expectation may be expressed that, before many years shall have passed, the Army Medical Department, renewing its youth by a continuous and plentiful influx of fresh blood, will, in the new era of hopeful prosperity now opening before it, reach and maintain the highest degree of efficiency.

For the information of probable candidates, it may be mentioned that admission to the Service on the ten-years system has been abolished; that the position of "Surgeon on Probation" during the special course of instruction at Netley, and prior to being finally gazetted, carries with it the relative rank of lieutenant, and the pay of 8s. daily, with quarters, light, and fuel; and that, on being gazetted as Surgeons, their relative rank will be that of captain—a position which, under previous rules, they could not have reached under six years' service.

THE NEW SCHEDULE OF THE QUALIFICATIONS OF CANDIDATES FOR THE ARMY MEDICAL SERVICE.

THE following is a new Schedule, just issued, of the qualifications necessary for candidates desirous of obtaining commissions in the Army Medical Department, with the conditions of service:—

1. Every candidate for a commission in the Army Medical Department must be twenty-one years of age and not over twenty-eight years at the date of commencement of the competitive examination. He must produce an extract from the register of his birth, or in default, a declaration, made before a magistrate by one of his parents or guardians, giving his exact age. He must also produce a recommendation from some person of standing in society—not a member of his own family—to the effect that he is of regular and steady habits, and likely in every respect to prove creditable to the Department if a commission be granted; and also a certificate of moral character, from the parochial clergyman, if possible.

2. The candidate must sign a declaration upon honour that both his parents are of unmixed European blood, and that he labours under no mental or constitutional disease, nor has any hereditary tendency thereto, nor any imperfection or disability that can interfere with the efficient discharge of the duties of a medical officer in any climate; also that he does not hold, and has never held, any commission or appointment in the public services.

His physical fitness will be determined by a board of medical officers, who are required to certify that the candidate's vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. A moderate degree of myopia will not be considered a disqualification provided it does not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes exists.

The board must also certify that he is free from organic or other disease, and from constitutional weakness, or tendency thereto, or other disability of any kind likely to unfit him for military service in any climate.

3. *Certificates of age, registration of diplomas, etc., and of character, must accompany the declaration when signed and returned.*

4. Candidates will be examined by the Examining Board in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows:—*a.* Anatomy and Physiology, 1000; *b.* Surgery, 1000; *c.* Medicine, including therapeutics, the diseases of women and children, 1000; *d.* Chemistry and Pharmacy, and a practical knowledge of drugs, 100. (N.B.—The examination in medicine and surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside.)

The eligibility of each candidate for the Army Medical Service will be determined by the result of examination in these subjects only.

Examinations will also be held in the following voluntary subjects, for which the maximum number of marks will be—French and German (150 each), 300; natural sciences, 300.

The knowledge of modern languages being considered of great importance, all intending competitors are urged to qualify in French and German.

The natural sciences will include comparative anatomy, zoology, natural philosophy, physical geography, and botany with special reference to *materia medica*. The number of marks gained in both the voluntary subjects will be added to the total number of marks obtained by those who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of modern languages and natural sciences.

5. After passing this examination, every qualified candidate will be required to attend one course of practical instruction at the Army Medical School as a probationer on—(1) Hygiene, (2) Clinical and Military Medicine, (3) Clinical and Military Surgery, (4) Pathology of Diseases and Injuries incident to Military Service.

6. In future, service in the Army Medical Department will not be limited to ten years, but executive medical officers will be placed on the retired list at fifty-five, and administrative officers at sixty years of age.

7. Candidates must possess two diplomas or licences—one to practise medicine and the other surgery—and be registered under the Medical Act in force in the United Kingdom at the time of their appointment.

8. The terms of the new Warrant for the Department are not finally settled, but the rates of pay and retired pay, stated below, have been sanctioned.

Full Pay.—Surgeon-General, £2 15s. daily; Deputy Surgeon-General, £2 daily; Brigade Surgeon, £1 10s., after 5 years in the ranks £1 13s. daily; Surgeon-Major, £1, after 15 years' service £1 2s. 6d., 20 years' service £1 5s., 25 years' service £1 7s. 6d. daily; Surgeon, £200, after 5 years' service £250 yearly, after 10 years' service 15s. daily; Surgeon on Probation, 8s. daily. (This scale does not include allowances for lodging, fuel and light, and for servant.)

Gratuity and Retired Pay.—Surgeon and Surgeon-Major, after 10 years' service £1250, 15 years' service £1800, 18 years' service £2500 gratuity; Surgeon-Major, after 20 years' service £1, 25 years' service £1 2s. 6d., 30 years' service £1 5s. daily; Brigade Surgeon, after 20 years' service £1 7s. 6d., 30 years' service £1 10s. daily; Deputy Surgeon-General, £1 15s. daily; Surgeon-General, £2 daily.

Temporary Half-Pay.—Medical Officer, under 5 years' service 6s., after 5 years' service 8s., 10 years' service 10s., 15 years' service 13s. 6d. daily.

Relative Rank.—Surgeon-General, as Major-General; Deputy Surgeon-General, as Colonel; Brigade Surgeon and Surgeon-Major of 20 years' service, as Lieutenant-Colonel; Surgeon-Major of less than 20 years' service, as Major; Surgeon, as Captain; Surgeon on Probation, as Lieutenant.

SIR WILLIAM JENNER ON TYPHOID.

THE Midland Medical Society, having its headquarters in Birmingham, has often been fortunate in its orators, but seldom has it achieved such valuable results as when it persuaded Sir William Jenner to speak in public on the treatment of typhoid fever. The speaker began by saying that he had literally nothing new to tell them. Very often, indeed, this is the best condition of things. With an experience almost unrivalled, and a clinical acumen rarely at fault, it would be strange if the ideas gradually, so to speak, crystallised in the brain of a man like Sir William Jenner were not worth sharing. New theories are often useful, sometimes valuable, but the pith and power of the man are to be measured, not by these, except in so far as they have been founded on such solid grounds as those embodied in the experience of the lecturer. Hence it was, said the lecturer, that he felt justified in addressing his audience on such a subject: because of the intrinsic value of the subject—because some questions concerning the treatment were considered by many to be still undecided—because not only had he had for a longer period probably than any of his hearers large experience in the treatment of the disease, but he had had also during later years frequent opportunities of seeing for himself the results of various modes of treatment as practised by others; and because, although he had written much and often on the etiology and pathology of the disease, he had never, to his own knowledge, yet publicly expressed or written a line on its treatment. In so complex a disease—the symptoms of which varied so greatly—it was scarcely possible to find two cases in all respects identical, and quite impossible to collect records of a sufficient number of cases practically identical to determine by numerical analysis the best mode of treatment. In the present state of knowledge it seemed to him impracticable to determine, otherwise than by opinions formed by individuals from personal experience, what are the best means to be employed in the treatment, not only of typhoid fever, but also of its symptoms, and under what circumstances each remedy should be employed. He did not in the least degree under-estimate the immense importance of numerical analysis. If it were possible to find the value of the several remedies proposed for the treatment of typhoid fever, or of its several symptoms, by numerical

analysis, the results of such an analysis would be real steps in medical knowledge, for facts would replace opinions, and doubts in regard to the influence of remedies be impossible. Each step of treatment would be based on firm grounds, instead of being, as at present, an experiment performed by the medical attendant. The sum of his own experiments constituted each man's experience, to which he appealed in proof of the correctness of his practice as if to a judge whose decision was infallible. And yet how different were the conclusions of men on any given case in any given remedy! He proposed to describe what his experience taught him to be the most successful methods of treatment of the disease, and also of some of the symptoms which, by the severity they might attain, might cause great discomfort to the patient or place his life in danger. Sir William Jenner remarked that he had never known a case of typhoid fever cut short by any remedial agent. He said typhoid fever could not be cured, but more lives might be saved by judicious treatment and more lives lost by the improper treatment of typhoid fever than any other acute disease. In a very large proportion of cases no other treatment was really required from beginning to end than rest in bed, quietude, fresh air, pure water, and regulated diet, although most cases were benefited by a little wine in the third and fourth weeks. If medicinal, in addition to hygienic, treatment were required, it was because special symptoms, by their severity, tended directly or indirectly to give an unfavourable course to the disease. Often, grave symptoms passed away spontaneously, although no special treatment was prescribed for their removal. When drugs were required to hold in check a special symptom, their use should be discontinued when the gravity of the symptom for which they were prescribed had subsided. Alcohol, because of its influence on the nervous system, was of the greatest value in typhoid fever, but should only be given for the purpose of attaining a definite object. Its effect should be watched, and the dose so regulated as to attain the desired effect from the smallest quantity possible. His experience led him to believe that the man would be the most successful in treating typhoid fever who watched its progress not only with the most skilled and intelligent, but also with the most constant care, and gave unceasing attention to little things; and who, when prescribing an active remedy, weighed with the greatest accuracy the good intended to be effected against the evil the prescription might inflict. While admitting without reserve that heroic remedies fearlessly and judiciously applied would save life when less potent means were useless, the physician whose experience reached over many years would, on looking back, discover that year by year he had seen fewer cases require heroic remedies, and more cases in which the unaided power of nature alone sufficed to effect a cure; that year by year he had learned to regard with greater diffidence his own powers, and to trust with greater confidence in those of nature.

FROM ABROAD.

TRANSMISSION OF HYDROPHOBIA FROM MAN TO ANIMALS.

PROF. BOULEY recently presented to the Academy of Sciences a paper by M. Maurice Raynaud, on the transmissibility of hydrophobia from man to animals, which is of considerable interest. Very contradictory assertions on the subject have been made, and it is a singular fact that, with one or two exceptions, the numerous attempts which have been made to inoculate dogs with human virus have failed—a fact the more singular as this animal seems at first sight to be the being *par excellence* for the reception of this virus. In a recent paper, read at the Academy, M. Galtier has shown that the virus may be easily transmitted from the dog to the rabbit, in which animal the period of incubation is remarkably short. This naturally led to the idea of experimenting upon the effects of the inoculation of the rabbit with human virus, and the results of a trial of this kind which he has had the opportunity of making are related in the present paper. On October 10 a patient was brought into the Lariboisière with confirmed hydrophobia, having been bitten on the lip forty days previously. The lip having been cauterised two hours afterwards, the man believed himself to be in no danger, and thought no more of the occurrence. The disease exhibited itself, however, with all its frightful symptoms, and

he died on the third day after the commencement of the symptoms. The patient at once felt himself beyond all hope, but the evening before his death, when in a state of comparative calmness, he willingly lent himself to experiments being performed with his blood and saliva. The blood, with which a rabbit was inoculated, produced no effect—which was to be expected, this being the usual result of inoculating, or even transfusing, the blood of rabid animals. A positive result, however, was obtained with saliva. A rabbit having been inoculated with it on October 11, was seized on the 15th with violent paroxysms of fury and convulsions, ejecting large quantities of foam, and died during the following night. Fragments taken from the two submaxillary glands, thirty-six hours after death, were introduced under the skin of two other rabbits; one of which died five and the other six days afterwards, both having been evidently ill from the third day. In neither of them was a stage of furor observed, the predominant and well-characterised phenomenon having been paraplegia.

There cannot be a doubt that these two rabbits, as well as the one which served for inoculating them, died from rabies. An important point to observe is, that the tissue of the salivary glands, and probably the saliva itself, still preserved virulent properties thirty-six hours after death; and an important practical conclusion to be drawn is, that the human saliva having produced rabies in the rabbit, might, under conditions favourable to inoculation, propagate the contagion from man to man. We should therefore observe the greatest care with regard to the organs and product of the salivary secretion in the subjects of hydrophobia, and that not only during life, but in the performance of autopsies. —*Union Méd.*, November 8.

EFFECTS OF LOCAL IRRITATION ON PAIN.

At the meeting of the Académie de Médecine on the 4th inst. (*Bulletin*, No. 44), Dr. Dumontpallier read a memoir on "Local Therapeutical Analgesia induced by the Irritation of the Similar Region on the Opposite Side of the Body."

"From this communication it results that pain seated at one point of the body yields to an injection of simple water (which, as is known, produces local irritation) at a similar point on the opposite side. In neuralgias of different seat and nature, in acute articular rheumatism, and in rheumatic or toxic neuralgia, I have requested patients to mark with the finger the painful points, and that being done, I have sought out similar points on the opposite side of the body, and at these latter points, for the most part not painful, I have practised injections of water or simple punctures. As soon as irritation has been produced on the sound side, the patients have acknowledged a diminution, and often a complete cessation, of the pain on the bad side, and that, I repeat, in cases of acute rheumatic arthritis. I have chosen this last example as a demonstration, as one could scarcely in such a case be deceived by patients. The joint may be red, swollen, hot, and painful to the touch or the slightest movement, but immediately that the little operation is terminated, the patients find that the pain diminishes or disappears, and that they can perform flexion or extension of the joint—the swelling preventing much motion, but the pain is gone."

The following are the conclusions arrived at:—"1. Every subcutaneous medicinal injection is a complex operation, in which a part must be assigned to the medicinal substance, and a part to the irritation produced. 2. The local irritation is transmitted from the periphery to the sensitive centres, and there determines a modification, the consequence of which is a diminution or cessation of the peripheric pain. 3. The real, anatomical seat of certain peripheric pains should then be in the sensitive centres—an assertion which seems demonstrated by the crossed action of induced peripheric irritation. 4. Irritation induced *loco dolenti*, or in the vicinity of the painful point, assuages or causes the cessation of pain; and when the irritation is induced at symmetrical points on the opposite side of the body, it proves often sufficient to cause a complete and durable cessation of pain."

OPHTHALMIA NEONATORUM.

Dr. Moore, Assistant-Surgeon of the New York Eye and Ear Infirmary, under the belief that the eyes of many infants are lost from ophthalmia through proper attention

not being paid to them by practitioners engaged in attending upon their mothers, communicates a paper to the *New York Medical Record* in order to draw attention to the subject:—"Fully one-half of the inmates in our blind asylums," Dr. Moore observes, "had this disease when only a few days old, and have suffered a lifetime in consequence. Scarce a day passes but we see presented at the various eye hospitals the sad picture of a helpless infant, frequently only ten days old, sometimes younger, in whom this disease has made sad havoc, one or both eyes being totally destroyed. The disastrous results so frequently seen are not from lack of means, but from the lack of applying sure and safe remedies. It is a disgrace to the medical profession that so many children annually become blind from this disease owing to the utter ignorance of the first principles of medicine. Of 500 cases treated at the New York Infirmary during the past ten years, only fifty of the mothers were delivered by midwives; the others were under the charge of practitioners of medicine. Thus in the majority of cases the neglect can be traced to the physician in attendance. Not until the mass of the profession realises the importance of energetic and thorough treatment shall we cease to see the awful results now so common."

Dr. Moore believes that the most frequent cause of the disease is improper cleansing of the infant's eyes and face immediately after delivery, and using a sponge or towel contaminated by discharges from the mother. Exposure to strong light is another cause, as is cold, causing catarrhal inflammation in delicate infants, rapidly degenerating into the purulent form. The prognosis is favourable when the patient is seen within forty-eight hours, and, as a rule, no corneal complication will then occur unless the child is extremely delicate and ill-nourished.

"The treatment may be divided into two parts, one to be carried out by the physician, the other by the nurse. 1st. The patient should be seen daily for the first two weeks. Remove all secretion from the edge of the lids by a moist cloth, separating the lids gently, and carefully examine the cornea. If, on evertting them, there is little or no bleeding from the conjunctiva, apply, after removing all adherent secretions by a camel's-hair pencil, a solution of nitrate of silver (gr. x.-xx. ad ʒj.) carefully to the upper and lower lids. The lids should then be placed in their natural position. The cornea should be inspected at each visit, and if hazy a weak solution of atropiæ sulph. (gr. ss. ad ʒj.) instilled. We prefer the ten-grain nitrate of silver solution, with the occasional use of the mitigated stick (one to two of nitrate of silver and potassa). This treatment is kept up daily until the swelling of the lids disappears, the cornea clears, and the secretion ceases. 2nd. The treatment by the nurse or mother is the most important, as the cardinal point is extreme cleanliness of the eyes. A few pieces of old linen, about two inches square, and of only one thickness, should be placed upon a small block of ice, and when cold placed upon the closed lids. As they become warm they should be replaced by cold ones. This should be kept up as long as the child will tolerate it. Half an hour six times a day, until the discharge and swelling sensibly decrease, will be none too long at first. The eyelids should be carefully separated every hour, and cleansed of all secretions adhering to their edges, and the secretion in the conjunctival *cul-de-sac* washed out by means of a solution of alum (ʒj. ad Oj.) with the ordinary medicine-dropper or pipette. In this way only can thorough cleansing be obtained. Chlorine water diluted may also be used with good results. We object to the use of solutions of lead, as deposits have frequently been found upon the cornea. Vaseline, applied to the edges of the lids, should be often used during the day. Certain we are that a patient seen within forty-eight hours will have no impairment of vision if subjected to the above treatment. Care should be given to the general health of mother and child, as the virulence of the disease is often due to bad nutrition."

It is announced that the next examination at the University of Oxford for the degree of Bachelor of Medicine, both for the first (or scientific) and the second (or practical) portions, and an examination for the certificate in State medicine and the public health, will commence early in December. The days and hours for each examination will be duly notified, and intending candidates are to send in their names by the 14th inst.

GENERAL CORRESPONDENCE.

STATISTICS OF OVARIOTOMY.

LETTER FROM DR. GEORGE GRANVILLE BANTOCK.

[To the Editor of the Medical Times and Gazette.]

SIR,—Your last impression contains a communication from an anonymous correspondent, who signs himself "F.R.C.S.," and implicitly accuses me of surgical immorality in having put too favourable a construction upon the results of my operations at the Samaritan Hospital. The case to which he alludes is that of a woman, who, after having recovered from the immediate effects of ovariectomy, died on the nineteenth day of an acute attack of otitis, which, in my opinion, and in that of others well qualified to judge, who watched the progress of the case with me, had nothing to do with the operation. I will, in compliance with your suggestion, give, in your next impression, not only a full report of the post-mortem "examination," but also of the clinical symptoms of the case, which will enable the profession to judge for themselves whether the pyæmia was consequent upon the operation or not. In the meantime I indignantly protest against the innuendoes of "F.R.C.S.," which must recoil upon their anonymous author, and I must at the same time equally protest against questions of this kind being put without the name of the author.

I am, &c.,

GEORGE GRANVILLE BANTOCK.

12, Granville-place, W., November 11.

[We shall be very happy to publish the details to which Dr. Bantock alludes. In such cases it is hardly possible to give the names of our contributors: when they desire such publicity we are happy to give it; but for the sake of peace and quietness, as well as being most likely to forward the interests of science, such queries so courteously framed as those signed "F.R.C.S." are, in our opinion, fairly legitimate.—Ed. *Med. Times and Gaz.*]

OBITUARY.

T. R. COLLEDGE, M.D. ABER., F.R.C.P. EDIN.,
F.R.C.S. ENG., F.R.S.E.

DR. THOMAS RICHARDSON COLLEDGE, who died on October 28 at Lauriston House, Cheltenham, in the eighty-third year of his age, was a pupil of Sir Astley Cooper, and entered some sixty years ago the profession, the practice of which he not altogether relinquished till last year. He practised in Canton and Macao, and some other Chinese ports, for more than twenty years, first under the Hon. East India Company and then under the Crown, and was Superintending Surgeon of the Hospitals for British Seamen. During his practice in Canton and Macao he originated the first infirmary for the indigent Chinese, which was called after him, "Colledge's Ophthalmic Hospital." He was also the founder of the Medical Missionary Society in China, and continued to be President of that Society to the time of his death—a period of forty-two years. On the abolition of the office he had held, and his consequent return to England, deep regret was expressed by the whole community, European and native, and a memorial of his services was addressed to her Majesty the Queen in 1838 by the Portuguese of the neighbouring settlement of Macao. Lord Palmerston, in recognition of his services and merit, thought it right to award him an annuity. The last thirty-eight years of Dr. Colledge's life were spent in Cheltenham, where he won universal esteem by his courtesy and skill.

THE HOSPITALS OF THE GERMAN EMPIRE.—According to the supplement now publishing in the German *Reichsgesundheitsamt*, to its weekly registration returns, there were, in 1877, in the German Empire, 1822 hospital establishments, furnishing 72,219 beds. These were occupied during that year by 406,547 patients. The days of treatment for the whole number amounted to 13,530,301; so that the mean number of days for each patient was 33.3.—*St. Petersb. Med. Woch.*, October 25.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, NOVEMBER 4.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

LYMPHADENOMATOUS GROWTHS.

DR. F. TAYLOR showed specimens from a typical case of lymphadenoma, or Hodgkin's disease, occurring in a boy aged ten years. About a year before his death small lumps were noticed on the right side of the neck, others were soon observed in the right axilla, and one in the left axilla. Six months later he was admitted into the Evelina Hospital. The cervical and axillary glands on both sides were enlarged, especially those of the right side. They were soft, rather tender on examination, freely movable under the skin and upon one another. The spleen was felt just below the left ribs. The heart was normal. The apex of the right lung presented slight dulness. The urine was free from albumen, and there was no leucocythæmia. The glands slowly increased in size, with a rise in the temperature at times. Occasionally the glands appeared to diminish somewhat for a short time. The whole right chest became dull from effusion into the pleura, and the liver was depressed to the umbilicus. Paracentesis was performed, but only partial relief followed, and the patient died soon afterwards. Post-mortem there were found, besides the glandular enlargements, effusions into the right pleura and into the pericardium, with compression of the right lung. There were adenoid growths on the pleural surfaces, and in the liver and spleen. An enormous mass of glands surrounded the trachea and the vessels at the upper opening of the chest. The large arteries and the innominate veins were completely embedded, and the œsophagus was pushed irregularly to the left by two of the largest glands, measuring each two inches in diameter. The glands were everywhere firm, but not dense, mostly semi-translucent on section, with some parts more opaque, but nowhere cheesy. The collapsed right lung showed a number of nodules of adenoid growth of the size of a pea, and there were similar nodules on the parietal pleura and in some fibrous bands which stretched through the pleural fluid from lung to pleura. A small mass of adenoid growth extended into the pericardium near the great vessels. In the liver there was a spherical white mass, four-fifths of an inch in diameter, and a few nodules the size of a pea. The spleen measured five inches by three inches and a half, and its section was mottled with closely set white growths about one-fifth of an inch in diameter. The kidneys and testes were healthy. Under the microscope, the enlarged glands and the new growths in the liver, spleen, and elsewhere showed a characteristic adenoid formation. Dr. Taylor called attention to the presence of the new growths in the stretched bands of pleural adhesions, and to the fact that there were no laryngeal symptoms, although the left recurrent laryngeal nerve was surrounded by large glands, and almost certainly suffered considerable compression.

Mr. FREDERICK EVE showed a specimen of lymphosarcoma (lymphadenoma) of mediastinum involving pericardium, taken from a man aged twenty, who at Christmas, 1877, had begun to suffer from pains in the stomach, with sickness after food, and with palpitation. Later he suffered from pains in the chest, and he was admitted into St. Bartholomew's Hospital in April, 1878. Over the upper part of the sternum there was dulness extending outwards on each side for some distance. There was general pulsation over the præcordium, and also over the first and second left intercostal spaces, close to the sternum. Patient went out of hospital, but was re-admitted on October 1, 1878. There was then some prominence of the upper part of the chest on the left of the sternum. There were no cardiac murmurs. Patient suffered from dyspnoea with nocturnal exacerbations, and had a laryngeal cough. The right radial pulse was stronger than the left. Dyspnoea increased, and patient died on December 1. Post-mortem, there was found a soft, brain-like mediastinal tumour, bulging forward from the base of the heart. The pericardium was infiltrated by the growth, being more than an inch in thickness at the

base. The visceral pericardium was not affected. The aorta was surrounded by the growth, and the vagi were seen entering it; but the trachea, bronchi, and œsophagus did not appear to be compressed. The mediastinal lymphatic glands and those at the root of the neck were much enlarged and were soft in consistence. There were no secondary deposits elsewhere, with the exception of a small tumour connected with the xiphoid cartilage. The microscope showed that the growth in the pericardium was composed of lymphoid cells embedded in an abundant matrix of homogeneous connective tissue. The lymphatic glands presented a large quantity of gelatinous connective tissue surrounding the cells, and all distinction between the cortical and medullary portions was lost. The remarkable feature in this case was the infiltration and great thickening of the pericardium. Mr. Eve referred to cases that had already been brought before the Society by Drs. Powell and F. Taylor. It was not surprising that such growths should invade serous membranes, as the latter were so intimately connected with lymphatic tissues. The speaker had found in a case of glioma of the retina that the growth passed backwards along the lymphatic sheath of the optic nerve, where it presented typical reticular lymphatic tissue. Such an observation, he thought, showed that there was an analogy between glioma and lymphadenoma. The latter disease, he thought, began as a simple hyperplasia of lymph tissue, which might in some cases take on characters like those of cancer.

Dr. LEDIARD, who exhibited "by card" a specimen of lymphoma of mediastinum pressing upon the right bronchus and invading the lung, said that the symptoms in the case bore out the truth of the observations brought before the Society last session by Drs. Irvine and Powell regarding the effects of pressure upon a main bronchus. There had been retraction of the right chest, with signs as if of fluid in the pleura—a suspicion which was disproved by the introduction of a trocar. The liver contained secondary deposits.

Mr. DORAN said that the pneumogastric might suffer considerable compression, especially if of gradual development, without the production of symptoms. So the nerves of the lumbar plexus were often compressed by abdominal tumours without evidence of their irritation.

Dr. POWELL asked if any explanation could be given of the origin of these growths by some local irritation or such exciting cause. He thought that such growths never exhibited an invading character, like that of cancerous growths, until the glandular swelling had become fixed below the skin and had burst its capsule.

Mr. PARKER asked if the number of red corpuscles of the blood had been noted. In a case in which he had repeatedly removed successive sets of glandular growths, and where pallor, fever, dyspnoea, and cachectic symptoms supervened, he had found marked diminution in the number of red corpuscles. Their fewness might account for the dyspnoea in some of these cases, where there was no evidence of mediastinal growths. There was no obvious cause of irritation in his case to excite the primary glandular growth. All the growths were strictly encapsuled.

The PRESIDENT asked whether there was any family history of cancer, etc., in these cases. The resemblance of these growths to cancer had recommended itself to Dr. Hodgkin himself. Probably lymphadenoma was the primary form of cancer affecting the lymphatic tissue. He did not know of any other malignant disease affecting them primarily.

Dr. TAYLOR said that, so far as he could learn the family history of his patient, there was no hereditary tendency to cancer. The boy had had measles five years before his death, followed by a discharge from the right ear; but this could hardly have excited the glandular enlargement, as the gland first affected was under the right clavicle.

Mr. RIVINGTON asked whether the secondary deposits were limited to regions whose lymphatics poured their lymph into the affected glands.

Mr. EVE could not give the family history of the case he had related. The undoubtedly greater frequency of mediastinal lymphadenoma at the later periods of life was perhaps due to the fact that catarrhal affections were then more common.

RUPTURE OF AORTIC VALVE FROM STRAIN.

Dr. GREENHOW exhibited this specimen taken from the body of a temperate man, aged thirty-nine. He had never had

rheumatism, and had previously been of good health; but whilst lifting a heavy weight had felt as if something had given way in his inside, and severe pain was also felt through the body. At the end of some weeks he began to suffer from palpitation and shortness of breath on exertion, and somewhat later from oedema of the lower limbs and from orthopnoea. On admission into hospital a loud systolic and a long diastolic murmur were heard in the aortic region. He gradually became worse, and died about five months after the injury. Post-mortem, the right and middle cusps of the aortic valves were found to be fused together, and a semi-calcified vegetation hung loosely into the left ventricle. A V-shaped notch was found near the middle of the posterior cusp of the valve, without any surrounding thickening or vegetations; and the left cusp was eroded and presented a jagged irregular margin. There was also an ulcer of the endocardium covering the septum ventriculorum. Dr. Greenhow thought, from the history of the case, and from the absence of any evidence of endocarditis elsewhere than on the right and perhaps middle cusps of the aortic valve, that some injury had been sustained by the former of these cusps at the time of the strain; that this gave rise to the adhesion of the right and middle cusps and to the formation of the pendulous vegetation on the right cusp. The late development of the dropsy and other pronounced symptoms of cardiac disease were, he believed, due to the fact that the incompetency of the valves had resulted mainly from the erosion of the healthy cusps by the pendulous vegetation, to which he also attributed the ulceration of the septum ventriculorum.

THE HISTOLOGY AND PATHOLOGY OF MORPHEA.

Dr. RADCLIFFE CROCKER showed microscopic specimens and living cases to illustrate the histology and pathology of morphea, and its relation to scleroderma adutorum. He said that as the histology of morphea was hitherto unknown, its pathology had been imperfectly understood, some authors calling it a hypertrophy, and others an atrophy, of the skin. Both were partially right, but there was no evidence of the lardaceous deposit sometimes spoken of. The specimens of skin were taken from two women, who had both been affected nearly two years and a half. In both, the cicatrix where the skin was removed was now scarcely distinguishable from the originally diseased patch, as if the morbid process had implicated the cicatricial tissue. The results of microscopical examination of the early and advanced stages were as follows:—(a.) In the early stage the epidermis showed in some parts degenerative changes in the deepest layers, but it was for the most part unaltered except in the cases where much pigment was found in the deep layer. The corium showed atrophy of the papillae, and thrombosis of the longitudinal vessels of the superficial plexus, and sometimes of the papillary branches. Cell masses, staining with carmine, were especially abundant round the sebaceous glands and hair-follicles, but not round the more deeply lying sweat-glands, but may be present round the sweat-ducts. A fibro-cellular reticulum was seen between the cell groups. Vessels were seen terminating abruptly in the cell masses, as if the vessel had ruptured; and cells were seen round the vessels. The vessels of the deep plexus were usually unaffected in this stage, but the connecting vessels of the two plexuses were so not unfrequently. With meth-anilin violet and iodine the walls of the vessels showed no sign of lardaceous change. (b.) In the later stage there was great increase of the connective and elastic tissues of the corium. The process seen in the early stage spreads to the deep part of the corium, and even to the upper part of the fat, and by the contraction of the new fibrous tissue (1) vessels are obliterated, (2) the sebaceous glands are atrophied, (3) the sweat-ducts obstructed, the sweat-glands being only rarely involved. The increase of the connective and elastic tissues was due to the fibrillation of the cells, and the fibro-cellular reticulum was the commencement of that process. The cell masses and thrombosis might be explained by the supposition that owing to some very chronic inflammatory or other trophic change in the vascular wall, probably of nervous origin, cell-exudation occurs round the vessels, and by pressure leads to thrombosis, and in some cases to actual rupture of the vessel. The clinical features which corroborate the microscopical appearances might be thus explained:—The pearly white, slightly depressed spots, about a line in diameter, with which the disease commences, are the bases of the cones in which the blood-supply

is cut off by the thrombosis below, the cell-exudation contributing to produce the slight opacity. The mottled pinkness of the skin between the spots and the violet zone of the dilated vessels round the fully formed patch are the result of collateral hyperæmia round an anæmic area. Pigmentation, small blood-extravasations, ulceration, and oedema, one or more of which may occasionally be seen, are also probably due to obstructed circulation. The patch is formed by the increase in number and coalescence of the pearly spots. The dense ivory-white opaque part in the centre is due to the increased cell-exudation and the contraction of the new fibrous tissue; while the pink and slightly thickened part round the dense ivory-white part owes its appearance to the process being still superficial, and thus allowing the deep vessels to show through. Involution occurs by the degeneration and absorption of the new elements. The main difference between morphea and scleroderma was that in scleroderma the process began in the deep part of the corium and subjacent tissues, while in morphea it began in the superficial plexus. Scleroderma often had at its edge a zone of dilated vessels like morphea; and the mottled surface from dilated small vessels noticed by Dr. George Harley, Mr. Hutchinson, and Dr. Crocker was also the result of collateral hyperæmia, and would probably be always found if looked for. The histology of scleroderma, therefore, resembled that of morphea except as to the depth of the disease, but in the former "the fat was atrophied with great increase of fibrous tissue, and the distinction between the corium and the subjacent tissue was lost." Dr. Crocker thought that the theory of a nervous origin of the disease, while it fitted well the many morphea cases where the patches were distributed in the course of a nerve, did not agree well with the cases of diffused scleroderma which implicated the whole skin in a few days, often followed exposure to cold and wet, and were not unfrequently associated with acute rheumatism, or peri- and endo-carditis without other rheumatic symptoms. These cases looked as if there were some blood-change which produced a general lymphatic inflammation of skin, blocking the lymph- and blood-vessels, and resembling phlegmasia dolens, except in the locality of the blocked vessels. This hypothesis would not, of course, exclude the possibility of ultimate nerve-influence. Dr. Crocker suggested that, since histology confirms Dr. Hilton Fagge's clinical induction that morphea is circumscribed scleroderma, except in that the morphea process is more superficial, it would be better to drop the meaningless term "morphea," and to speak only of diffused and circumscribed scleroderma.

Dr. T. C. Fox said that it was an important fact that there was both an overgrowth and sometimes also an atrophic process in cases of morphea, the difference probably depending on the rapidity of the morbid process. Mr. Erasmus Wilson was the first to suggest the nervous origin of the disease, and the speaker thought that if a nervous origin were admitted for the circumscribed process (morphea), it could not be denied that the diffuse form (scleroderma) was connected with vaso-motor disturbance. There was often intense pigmentation in cases of morphea.

The PRESIDENT remarked that he had recently, at much length, published his opinions respecting the nature of morphea. Dr. Crocker's report as to the histology of the lardaceous patch was very valuable. For himself he might say that he could not feel any doubt as to the identity of localised and general morphea. It was mainly a question of extent, and all gradations of degree might be traced. It appeared to be a law that the greater the extent of surface affected, the less was the evidence of local thickening (the lardaceous patch). In his lectures before the College of Surgeons last summer, he had exhibited two women with general morphea, both showing exactly similar conditions in hands and face to those seen in Dr. Crocker's patient. That the changes were located by the nerve-trunks, he thought there could be little or no doubt. The laws of distribution were almost precisely those of herpes zoster. The difference between the two appeared to be this: that whilst the herpes eruption is probably due to disease of the sensory filaments and their peripheral end organs, those of morphea are caused by disease of the vaso-motor filaments which travel in their company. He preferred in each instance to suspect that it was disease of the nerves concerned, not disease produced by them. That the bloodvessels took an important share in the production of the morphea changes, no one could doubt. In

cases where the hands were affected, the resemblance to the *digiti mortui* of authors was most close. In one of his patients the changes in vascularity had often been very rapid, and the woman's fingers would be white and tallowy at one time, and florid again in half an hour. He believed that the disease around the vessels was an important part of the process, but that it was secondary to, and located by, disease of the vaso-motor filaments. This view had been fully explained in his lectures at the College of Surgeons, and was in advance of that contained in his earlier volume of clinical lectures. Dr. Crocker's contribution was very valuable, as going in the direction of previous conjectures as to the identity of morphea and scleroderma.

Dr. CROCKER, in reply, said that, though disturbance of the sympathetic nerves might produce oedema and other changes, he yet thought that many cases where the disease was general could be better explained in the manner he had described, as resulting from blocking of the vessels by cell-exudation, etc. He had exhibited one such case before the Clinical Society, where the whole body was covered by the disease, and that case had now recovered.

COLOTOMY IN A SHEEP PERFORMED BY A PARROT.

Mr. JOHN WOOD (for Mr. De la Tour, of Christchurch, Otago) exhibited the colon of a sheep which had been perforated by a parrot. He said that in the mountainous country near Otago, there was found a species of parrot called Keâ (*Nestor notabilis*), whose food ordinarily consisted of berries and insects. But since the introduction of sheep into the colony, these parrots had become fond of raw mutton, and attacked living sheep, stripping the wool, tearing the flesh, and, in many cases, piercing through the loin, usually on the right side, into the colon, thus producing an artificial anus. The specimen he exhibited illustrated the latter condition, the gut having been found adherent to the abdominal wall round the artificial anus. The sheep had evidently lived for some time after the injury had been inflicted. It had been suggested that the object of the parrots was to reach the contents of the gut, but though they probably ate the latter, they were also fond of the flesh, for they would attack the hides of sheep. A specimen of the parrot was also exhibited.

AFFECTION OF CRANIAL BONES IN CONGENITAL SYPHILIS.

Dr. LEES exhibited the recent calvaria of a child nine months old, showing the early condition of the cranial changes from congenital syphilis, which Professor Parrot had described to the Society last session. There was increased vascularity and thickening of portions of the frontal and parietal bones, the original site of ossification being unaffected. The pericranium seemed normal, but the dura mater was firmly adherent over the thickened parts. The specimen also showed areas of cranio-tabes. The child had also a large liver and a large spleen, and, when three weeks old, had had a rash on the genitals. It was one of twins, the surviving child presenting similar conditions. The father was a soldier. There was no trace of rickets. He (the speaker) therefore considered the cranio-tabes, as well as the other conditions of the cranial bones, as probably due to congenital syphilis.

The following specimens were exhibited by card:—

By the PRESIDENT—1. Chronic Enlargement of Bursa Patellæ. 2. A Pigmented Mole, with Elephantoid Hypertrophy of the Mons and Labium. 3. (For Mr. Keeling, of Sheffield) Large Recurrent Enchondroma of Lower Jaw.

By Dr. LEDIARD—Lymphoma of the Mediastinum pressing upon the Right Bronchus and invading the Lung.

By Dr. COUPLAND—1. Medullary Carcinoma of Duodenum obstructing the Hepatic Artery and the Bile-Ducts. 2. Volvulus of Small Intestine due to Complete Meckel's Diverticulum. 3. Hernia of Ileum through a Rent in the Great Omentum.

By Mr. RIVINGTON—Osteitis of the Os Calcis.

WE are glad to observe that C. C. Aldred, Esq., M.R.C.S., has for the third time been elected Mayor of Great Yarmouth.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examination in Anatomy and Physiology at a meeting of the Board of Examiners on the 10th inst., and when eligible will be admitted to the Pass Examination, viz.:—

Beevor, Walter C., student of the Edinburgh School.
Birt, Cecil, of the Birmingham School.
Bordling, Edwin E. L., of St. Bartholomew's Hospital.
Calder, James A. L., of the Edinburgh School.
Cama, Rastamji H., of the Bombay School.
Conway, John, of the Glasgow School.
Davis, William G., of the Philadelphia School.
Leonard, Ernest, of the Bristol School.
Line, William H., of the Dublin School.
Mills, William H. O., of the Edinburgh School.
Patrick, George A., of the Manchester School.
Rentoul, Robert R., of the Edinburgh School.
Robertson, Charles A. J., of the Manchester School.
Sauer, Johannes, of the Edinburgh School.
Shirley, Matthew B., of the Leeds School.
Tighe, John J., of the Dublin School.
Trotman, Frank, of the Bristol School.
Viccaji, Kaikhusro R., of the Bombay School.
Welford, Charles H., of the Aberdeen School.

Five candidates were rejected. The following passed on the 11th inst., viz.:—

Albert, Henry L., student of St. George's Hospital.
Allwork, Frank, of the Westminster Hospital.
Beaumont, Albert W., B.A. Cantab., of St. Mary's Hospital.
Bennett, Frederic T., of St. Bartholomew's Hospital.
Gordon, Edward, of the Manchester School.
Griffin, Albert W., of St. Bartholomew's Hospital.
Hayman, Stanley J. W., of St. Mary's Hospital.
Hewkley, Frank, of the London Hospital.
Jackson, Allan H., of Guy's Hospital.
Keys, Elias, of the University College Hospital.
Malcolm, John D., of the Edinburgh School.
Marras, Ernest A., of St. George's Hospital.
Megarry, John W., of the Charing-cross Hospital.
Norman, James K., of the Glasgow School.
Phillips, Henry W., of the Edinburgh School.
Roe, Robert B., of St. George's Hospital.
Travers, Geoffrey F., of St. Bartholomew's Hospital.

Seven candidates were rejected. The following passed on the 12th inst., viz.:—

Burke, Hubert W., student of St. Bartholomew's Hospital.
Copner, Arthur L., of St. Bartholomew's Hospital.
Field, Charles A. E. A., of St. Bartholomew's Hospital.
Fletcher, John, of the Manchester School.
Fraser, James A., of Guy's Hospital.
Freeborn, John C. R., of St. George's Hospital.
Grimsdale, Thomas B., of St. George's Hospital.
Mears, Frederick C., of the London Hospital.
Medley, Harold T. D., of St. George's Hospital.
Milton, Herbert M. N., of St. Thomas's Hospital.
Moor, Hugh W., of Guy's Hospital.
Pollock, William R., of St. George's Hospital.
Robinson, Alfred, of St. Bartholomew's Hospital.
Sworn, Henry G., of the University College Hospital.
Thurston, Daniel, of the London Hospital.
Wray, Charles, of the London Hospital.

Nineteen candidates out of the seventy-one examined having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, including three who had an additional three months. With this meeting of the Board the Primary Examinations for the present year were brought to a close.

Collegiate Examinations.—The following were the questions on Anatomy and Physiology submitted to the candidates at the primary examination for the diploma of Membership of the Royal College of Surgeons on the 7th inst., when they were required to answer at least four (including one of the first two) out of the six questions, viz.:—1. Describe the structure of the mammary gland. Give the physical characters and chemical composition of milk. 2. Describe the motions and sounds of the heart. What events are synchronous with each sound? 3. Describe the hip-joint, including the constituent bones, ligaments, and synovial membrane. What are its movements; and by what muscles are they effected? 4. State how you would remove the brain from the skull in a post-mortem examination. Mention the structures which it would be necessary to divide in the process. 5. Describe the male urethra; giving the position, attachments, and actions of the muscles connected with it. 6. What dissection is necessary to expose the coeliac axis after the abdomen has been opened? Describe the course and anastomoses of its branches.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their First Professional Examination during the October sittings of the examiners:—

Robert Webster, Fifeshire; William Boulter Brodribb Perrin, Somersetshire; Arthur Maker Kavanagh, Tipperary; Walter Grant Jones, Essex; Robert William Gentles, Roxburghshire; James Hare Macadam, London; William Francis Blyth, Dublin; Joseph W. Downing, Cheshire; John Denis Kane, Kerry; John Patrick Rice, Kerry; George Daunt, Cork; Edwin William Reilly, Calcutta; Adam Garratt Mitchell, Limerick; Robert Duncan Cameron, Liverpool; George Henry Ainley, Todmorden; Edwin Alfred Cormack, Edinburgh; Frederic Theodore Underhill, Staffordshire; William Mackay, Woburn; Alexander Harkness, Belfast; Edward George Byrne, Cork; John Henry Dean, Sunderland; William Doughty, Canonbie; William Browne, Ayrshire; John Wood Lewis, Skibbereen; Herbert Hyde, Dukinfield.

And the following gentlemen passed their Final Examination, and were admitted L.R.C.P. Edin. and L.R.C.S. Edin during the October and November sittings:—

Thomas Richard Mulroney, Bombay; George Harrison, Chester; Arthur Robert Roberts, Worcestershire; Denham Francis Franklin, County Cork; James Dickson, Coragorry; Robert Wilson, Manchester; Thomas Newburgh, Bantry; Lavington Grey Thompson, Tasmania; Folliott Reginald Dennis, County Westmeath; Walter Grant Jones, Prittlewell, Essex; Ernest William Whitlock, Wiltshire; John Hewitt, Manchester; Arthur Maker Kavanagh, Tipperary; Jerome Eugene O'Sullivan, Cork; Isaac William Dalzell, Maryport; Hastings Norman Victor Harington, Calcutta; Arthur Dobson, Holbeck, Leeds; Edwin Oswald Mileward, County Clare; Charles John Lathbury, Staffordshire; George Ewart Anderson, Calcutta; William Henry Jonas Brown, Ayrshire; Leonard Smith O'Flaherty, Calcutta; Arthur Hyde Burlton, Leicestershire; Thomas Pakenham Walsh, Athlone; John Leonard, Cork; John McCaw, Belfast; Percy Turner Jones Head, East Grinstead; Pierre Constant Evariste Laval, Mauritius; James Law Henderson, Peterhead; Joseph William Oliver Mogg, Redditch; Robert Gilmore, County Antrim; Arthur Henry Fretz, Galle, Ceylon; Evan Griffiths, Cardiganshire; George William Whiteley, Wakefield; Robert Joseph Shore, Wexford; Francis Edward Haydon, Bovey Tracey; Edward John Parry, Abergyle; Henry Martin Kelly, Trinidad; Edward Pratt Evatt, County Monaghan; James Thomas Taverner Reed, Ryhope, Sunderland; William Edward Hayes, County Wexford; Robert Wilson Stuart, Aberdeen; Richard Blair Cullin, Dublin; William Henry Hynes, Lixnorr, Ireland.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—Mr. Edward Ronald Da Costa, Darjeeling, passed his First Professional Examination in October last; and the following gentlemen passed their Final Examination, and were admitted Licentiates of the College:—

Francis Mitchell Caird, Edinburgh; James Charles Neligan, County Galway; William Logan, Milngavie.

The following gentlemen having passed the necessary examinations in October, obtained the diploma of Licentiate in Dental Surgery:—

Norman Bernard, Essex; William Barton, London.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 6:—

Haycroft, Charles Henry, Starcross, Devonshire.
Wray, George Bury, Mansfield-road, Nottingham.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Martin, Joseph Henderson, Middlesex Hospital.
Newcombe, Frank, Middlesex Hospital.
Whelan, John Joseph, Grant Medical College, Bombay.

BIRTHS.

FORD.—On November 4, at Poplar House, Stamshaw, Portsmouth, the wife of A. Vernon Ford, L.K.Q.C.P.I., M.R.C.S., of a son.

HILL.—On November 7, at Oxford House, 76, Abbey-road, N.W., the wife of Fred. A. Hill, M.D., of a daughter.

SANCTUARY.—On November 6, at Hayle, Cornwall, the wife of Thomas Sanctuary, M.B., of a daughter.

WEBB.—On November 3, at Kingsbridge, South Devon, the wife of W. H. Webb, M.R.C.S., of a son.

WHITING.—On November 11, at 204, Ebury-street, Eaton-square, S.W., the wife of James D. C. Whiting, M.R.C.S., of a son.

MARRIAGES.

JACK—O'FLAHERTIE.—On November 10, at Allahabad, David Morton Jack, M.D., of the Indian Medical Service, to Dora Fanny, daughter of the Rev. T. R. O'Flaherty, of Lemonfield, County Galway, and Vicar of Capel, Surrey.

SAYER—GAMAN.—On November 4, at Hambleton, Charles Wathen Sayer, M.R.C.S., late of Yatton, Somerset, to Emily Marion, third daughter of the late John Gaman, M.R.C.S., of Hambleton, Hants.

WEEKES—ARKCOLL.—On October 6, at Maidstone, Henry Weekes, L.R.C.P., M.R.C.S., of Brompton, Chatham, to Lucy, second daughter of Charles Arkcoll, Esq., of Rocky Hill, Maidstone.

WELCH—WARLOW.—On November 8, at Handsworth, J. B. Welch, M.B., of Soho-hill, Handsworth, to Lucy Mary, daughter of William Warlow, of Hall-road, Handsworth.

YOUNG—NUGENT.—On October 9, at Poona, Charles Colville Young, C.B., Major, Royal Horse Artillery, to Sara, only daughter of J. Nugent, Esq., M.D., of Rutland-square, Dublin.

DEATHS.

COLLINS, FREDERICK, M.D., at Wanstead Lodge, Wanstead, Essex, on November 9, aged 53.

KINGSFORD, WINIFRED NORA, youngest child of C. D. Kingsford, M.D., at Upper Clapton, on November 12, aged 1 year and 2 months.

MORTON, AUGUSTA LOUISA, wife of J. S. Morton, M.D., Retired Surgeon-Major Madras Medical Service, at Kingsley Villa, Bideford, North Devon, on October 31, aged 50.

PICKOP, ELI, M.R.C.S., at Grayson House, Great Salkeld, Cumberland, on November 6, aged 64.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BURY DISPENSARY.—House-Surgeon. Applicants must be registered under the Medical Act, 1858, in both medicine and surgery, unmarried, and willing to engage for a period of two years. Applications, with testimonials, to be made to J. W. Kenyon, Secretary, Market-street, Bury, on or before November 29.

JERSEY GENERAL DISPENSARY.—A Resident Visiting and Dispensing Medical Officer, possessing the double qualification, and unmarried, is wanted for December 1. Applications to be made to the Honorary Secretary, Oak-walk, Jersey.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Assistant-Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England. Applications, with testimonials, to be sent to James S. Blyth, Esq., Secretary, on or before November 26.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—House-Surgeon. Application, with testimonials, to be made to Robert J. Newstead, Secretary, on or before November 22.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Brentford Union.—The Second District is vacant: area 1120; population 6054; salary £85 per annum.

East Retford Union.—Dr. J. E. Hebblethwaite has resigned the Scrooby District: area 2572; population 302; salary £4 per annum.

Shipston-on-Stour Union.—Mr. Henry Miller has resigned the Halford District: area 12,199; population 2751; salary £47 per annum.

APPOINTMENTS.

Downham Union.—Walter Berry, M.R.C.S. Eng., L.S.A., to the North Welney District. Wm. B. Hunter, M.D. Edin., to the South Welney District.

Lichfield Union.—Thos. Wilson, L.R.C.P. Edin., L.R.C.S. Edin., to the Yoxall District.

Liverpool Parish.—William Whitford, M.D., M.C., and L.M., Q.U.I., Assistant Medical Officer to the Brownlow Hill Workhouse.

Lutterworth Union.—John Hutchinson, M.D. and M.C. Glasg., to the Second District.

Oakham Union.—Wm. Keal, M.R.C.S. Eng., L.S.A., to the Oakham District and the Workhouse.

Stroud Union.—Henry M. Sampson, M.R.C.S. Eng., L.R.C.P. Edin., to the Sixth District.

Tiverton Union.—John P. McNeill, L.R.C.S. Ire., M.D. Dub., to the Tiverton West District.

Woolwich Union.—Wm. J. Vance, L.R.C.S. Ire., L.R.C.P. Edin., to the North Woolwich District.

BRITISH MEDICAL ASSOCIATION.—A meeting of the Metropolitan Counties Branch, South London District, will be held at St. Thomas's Hospital (Westminster-bridge entrance), on Wednesday, November 26, at eight o'clock p.m.; Professor John Wood, F.R.S., President of the Branch, in the chair. The entire evening will be devoted to a discussion on "Antiseptic Surgery," to be opened by Mr. William Mac Cormac, and in which Professor Lister, F.R.S., and many other hospital surgeons are expected to take part.

PROLAPSUS OF THE SPLEEN.—Dr. Oks, of Odessa, relates the case of a woman of seventy years of age, who was brought to the hospital having been just knocked down in the street by a bullock. On examination a wound seven centimetres in breadth with torn edges was found in the axillary line of the tenth left intercostal space, and from this projected a dark, firm organ, which proved to be the lower edge of the spleen, two fingers in breadth. After being carefully cleansed with carbolic acid water, the projecting part was replaced and the wound united by means of catgut sutures, a bladder of ice being kept on the parts for some hours. No reaction followed, and the wound united by the first intention, the patient being detained in the hospital longer than she would have otherwise been by the slower healing of a wound in the temporal region produced by the same accident.—*St. Petersb. Med. Woch.*, October 25.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Street Accidents in London.—The return of the Society for Preventing Street Accidents for the week ending Saturday, the 1st inst., shows—killed 4, run over 47.

Climatic Changes.—1. Yes. 2. As to the climate of England, Mr. Glaisher has recently published the averages for periods of eighteen years of the mean temperature between October and September inclusive, from 1871 to the end of September, 1879, and his figures show a progressive improvement in the warmth of our atmosphere from 47·8 to 49·4, or rather more than a degree and a half.

Eating Yew-Berries: a Fatality.—An inquest has been held at Oxford on the body of a boy who died from the effects of eating the berries of the yew. The deceased had been strolling through a cemetery with some other persons, and while playing about he picked and ate "a handful of yew-berries." The next morning he awoke in convulsions, and died before medical advice could be got.

Infanticide: a Suggestion.—In a case of infanticide before Dr. Hardwicke, the coroner, last week, it appeared the police had failed to trace the parentage of a child—a difficulty, unfortunately, of frequent occurrence in these cases,—and the coroner made a suggestion which, if adopted, might be the means of detecting these secret offenders. He suggested that the Government should offer a permanent reward of £50 for the apprehension and conviction of such offenders.

A Meat Supply for Dublin.—A Company named the "Meath and Kildare Feeders' Meat Association" has been formed for the purpose of supplying meat of the best quality to Dublin direct from the feeder without the intermediate intervention of dealers. The Company offers to supply first-class meat at prices much below those now charged. This competition the retail butcher has no doubt brought upon himself. Consumers are pretty generally of opinion that they have been paying for a long time too high prices.

Canadian Butter.—In a paper submitted to the Western Dairymen's Association at Ingersoll, Professor Bell recommended Canadian farmers to turn their attention to the production of butter. He said he was "confident that an immense increase in the quantity of butter could be produced of a good uniform quality, and at such a price as would drive out from the English market the horrible 'oleo-margarine,' which is now consumed, in the belief that it is genuine butter, by large numbers of the poorer classes in England."

Urban and Rural Sanitary Works.—The Rural Sanitary Authority of Midhurst Union are about to sink a well and borehole at Todham Lock, near Midhurst.—An amusement-room is in course of erection at the Brentwood Lunatic Asylum at an estimated cost of £4500.—The boring on the site of the proposed new asylum at Wickham Bishops has hitherto been unsatisfactory.—The Drainage Board of Wood River district, in the counties of Dublin and Meath, have adopted a drainage scheme.—A public mortuary is about to be erected in East Grinstead cemetery for the Local Burial Board.—The county magistrates recently authorised the Committee of Visitors to the Joint Counties Lunatic Asylum, Abergavenny, to procure plans for an extension to accommodate 250 additional patients at the Asylum.—The difficulties which have existed between the St. Paneras Board of Guardians and the Local Government Board as to the erection of a new workhouse are at length likely to be overcome. An important report was submitted to the Guardians at their last meeting from the Works Committee. It referred to a conference with Dr. Bridges and Mr. Headley, Inspectors of the Local Government Board, on the question, and, after considerable discussion with respect to propositions and plans submitted and suggestions made by Dr. Bridges, it was unanimously resolved that plans to provide accommodation upon the present workhouse site for about 2500 inmates by the demolition of certain portions of the existing buildings, and the erection in their place, and on remaining spaces, of new and more commodious buildings, be ordered.—The inquiry into the complaints made by the Rotherham Corporation, of their water-supply being contaminated through the neglect of the Rural Sanitary Authority to provide proper drainage, has resulted in a letter from the Local Government Board to the Rural Authority, stating that it is essential that steps should be taken without delay for the efficient sewerage of the town.—The Local Board of Haslington are carrying out an extensive scheme of sewerage works. It is intended to utilise the sewage by applying it to forty acres of land purchased for the purpose.—At Shepton Mallet, the memorial stone has been laid of a new hospital and dispensary for Shepton Mallet and the surrounding district. There will be four wards and accommodation afforded for twelve patients, six of each sex. The premises will occupy an area of an acre of land. The estimated cost is from £1800 to £1900.—New waterworks are about to be established at King William's Town, South Africa. The water will be brought a distance of seven miles, and will replace the use of that from the Buffalo River, which is very impure.

Striking the Head in Chastisement: another Fatality.—At the Stafford Assizes, last week, a man was tried for the manslaughter of his child. The deceased was thirteen years of age, and the undeniable fact in the case was that the prisoner in chastising her for disobedience struck her twice on the head with a strap which had a buckle on it. The child died from the injuries received. The question was, whether these blows caused the injuries sustained. The evidence was conclusive upon this point, and the prisoner was found guilty, and sentenced to eighteen months' imprisonment with hard labour.

Defective Legislation.—Mr. Collier, the Medical Officer of Health for the Fulham District Board of Works, remarks in his annual report on small-pox that "it seems rather extraordinary that less power should be given to us who have to protect the lives of men than is allotted to those who have to protect the lives of cattle; and yet no one doubts that if the same prompt measures were adopted in dealing with infectious disease in the human subject as are carried out in the case of analogous diseases in the lower animals, it would be as easy to stamp out the one as the other. Of course I do not refer to the pole-axe, but I can see no reason why the same system of immediate and compulsory isolation should not be adopted in the case of man as in that of animals."

Testimonial.—Mr. T. Watkin Williams, F.R.C.S., after twenty-five years' service as Honorary Treasurer of the Birmingham and Midland Branch of the British Medical Association, having intimated his intention of declining to be nominated another year, a general desire was expressed amongst the members that his retirement should be recognised by some permanent testimony of the great advantages he had conferred upon the medical profession in the town and district by his long and successful connexion with this branch of the Association. A Committee was accordingly formed to carry out this purpose; and Mr. Williams has been presented with a claret-jug and a silver tea and coffee service. The plate bears the following inscription:—"Presented to T. Watkin Williams, Esq., F.R.C.S., in recognition of his very devoted services to the Birmingham and Midland Counties Branch of the British Medical Association as its Honorary Treasurer for a period of twenty-five years.—Birmingham, November 7, 1879." The presentation took place on Friday, the 7th inst., in the presence of a large assembly of professional brethren.

Mixing the Milk of Diseased and Healthy Cows.—At the recent opening of the Edinburgh Veterinary College for the season, some observations by Professor Walley on the practice of some unscrupulous dairymen of mixing the milk of diseased cows with that of healthy cows—which, it seems, prevails to some extent—should not pass unnoticed. After showing that in one of the clauses in the Dairies and Milkshops Order, issued under the provisions of the Contagious Diseases (Animals) Act of 1878, it is stated that milk from diseased animals must not be mixed with that intended for consumption, he said that the provision was a very necessary one; but who, he inquired, was to enforce it? While it was true that the great body of dairymen would not stultify themselves by adding the milk of unhealthy to that of healthy cows for the purpose of increasing their gains, it was equally true that a certain proportion would not allow their consciences to dictate to them as to what was the right course to follow when they had one or more diseased animals in their stock. That milk from diseased animals is frequently the means of inflicting irreparable injury, especially on children, there cannot be the slightest doubt. The question arises—What is to be done when diseased animals are found in public dairies? The local authority has not the power to order their destruction, and the most vigilant system of inspection will not prevent the admixture of the milk—small though it must necessarily be in quantity, in most instances—with the daily yield, if the dairymen determine on defying the authorities.

How Not to Do it.—A discussion arose lately at the meeting of the Doncaster Board of Guardians as to the recent suicide of a man in Doncaster. The man had cut his throat, and Mr. Rigby, a surgeon, was sent for. He found the man perfectly destitute, living in a public-house, where he had paid nothing for his lodgings for several weeks. Nothing was known about him, save that he had come to the races, and said he had a quarterly allowance. Mr. Rigby, having attended to the wound, went to the Board of Guardians, then sitting, and applied for an order to remove the man to the workhouse. This the Board refused, remarking that it was a case for the police, and that the man ought to be in custody. Mr. Rigby then went to the chief constable, who, however, declined to have anything to do with the case; the man was not in custody, and no charge had been preferred against him. Mr. Rigby returned to the Guardians, but they still refused to take any steps, and the difficulty was ultimately met by one of the guardians giving an order for the man's admission to the infirmary, where he subsequently died. At the inquest, the coroner intimated that, had it been proved that the man's death was accelerated by what had taken place, or rather from the delay which had arisen in consequence, that inquiry might have taken a much more serious turn for somebody. He thought the Guardians ought to have received the man. The Board decided to write to the Local Government Board with the object of ascertaining what would be the proper course to take should a similar difficulty again arise.

COMMUNICATIONS have been received from—

Dr. GEORGE HOGGAN, London; Mr. EDWARD L. HUSSEY, Oxford; THE SECRETARY OF THE ROYAL COLLEGE OF SURGEONS, Edinburgh; Dr. ELLIOTT, Carlisle; Dr. C. MEYMOTT TIDY, London; THE SECRETARY OF THE SOCIETY OF ARTS, London; THE REGISTRAR OF THE SOCIETY OF APOTHECARIES, London; Dr. SUTHERLAND, London; THE SECRETARY OF THE MEDICAL SOCIETY OF UNIVERSITY COLLEGE; THE CLERK OF THE METROPOLITAN ASYLUMS DISTRICT BOARD; Dr. MATTHEWS DUNCAN, London; Dr. ED. I. SPARKS, Mentone; Dr. H. D. LITTLEJOHN, Edinburgh; Dr. CLEMENT GODSON, London; Dr. J. WICKHAM BARNES, London; Mr. J. HAMILTON CRAIGIE, London; Dr. CARTER, Liverpool; Mr. THOS. W. HIND, Sheffield; Dr. BALTHAZAR FOSTER, Birmingham; THE HONORARY SECRETARIES OF THE MIDLAND MEDICAL SOCIETY; THE REGISTRAR-GENERAL, Edinburgh; Dr. CAYLEY, London; Dr. WILLIAM ROBERTS, Manchester; Dr. J. W. MOORE, Dublin; Mr. J. CHATTO, London; Dr. F. DE HAVILLAND HALL, London; THE HONORARY SECRETARY OF THE HARVEIAN SOCIETY, London; Mr. T. M. STONE, London.

BOOKS AND PAMPHLETS RECEIVED—

Manual of Anæsthetics, by Laurance Turnbull, M.D.—A Text-book of Physiology, by Dr. M. Foster—The Necessity of Mental Culture, by C. J. Dixon, A.B., M.B.—Bible Hygiene, or Health Hints, by a Physician—Diseases of the Eye, by Edward Nettleship, F.R.C.S.—On the Experimental Study of Disinfectants, by J. Lane Natter, B.A., M.Ch., M.D. Dub.—Portraits de Médecins, Naturalistes, et Mathématiciens et Gravures—Functional Derangements of the Liver, by Dr. Murchison—"Let there be Light," by Vindex Veri—Monthly Return of Births, Deaths, and Marriages in the Eight Principal Towns of Scotland.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Louisville Medical News—Nature—El Siglo Médico—Revue Médicale—Boston Medical and Surgical Journal—Imports and Exports—The Analyst—St. Louis Courier of Medicine—Philadelphia Medical Times—Centralblatt für Gynäkologie—National Board of Health Bulletin—The Anti-Vivisectionist—Government Gazette—The Canadian Journal of Medical Science—Gaceta Médica—La Escuela de Medicina—El Observador Médico—The Sheffield Daily Telegraph—The Students' Journal and Hospital Gazette—The Dairnshire Telegraph—L'Union Médicale d'Orient.

APPOINTMENTS FOR THE WEEK.

November 15. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

17. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Mr. Rose, "On the Treatment of Fractured Patellæ by Drilling Fragments and Wiring them together." Also Clinical Cases by the President (Dr. Cockle) and Mr. Spencer Watson.

18. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

PATHOLOGICAL SOCIETY, 8½ p.m. Dr. Moore—1. Calvaria from Congenital Syphilis; 2. Cancer of the Gall-Bladder. Dr. Abercrombie—Multiple Sarcoma of the Skull. Dr. Coupland—Primary Sarcoma of the Liver. Dr. Goodhart—1. Fatty Degeneration of the Heart; 2. Myocarditis in Scarlatinal Nephritis. Mr. Walsham—Bifid Uterus and Double Vagina. Mr. Barker—Peculiar Rash on the Tongue. Mr. H. Cripps—Enchondroma of the Arm. Dr. Peacock—Malformation of the Heart (two cases). Mr. H. Orlebar—Aneurism and Rupture of Aortic Valve. Dr. Crocker—Heart Disease (two cases), and other specimens. Members are invited to attend at eight o'clock, by which time all specimens are on the tables for examination.

19. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY (Council Meeting, 8 p.m.), 8½ p.m. Casual Communications.

20. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

HARVEIAN SOCIETY, 8½ p.m. Dr. W. Squire, "On the Action of Salicine and Salicylic Acid in Rheumatism." Mr. Osman Vincent, "Congenital Talipes in the Adult." Mr. Walter Pye, "On the Present Position of the Operation of Nerve-Stretching."

21. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 8, 1879.

BIRTHS.

Births of Boys, 1395; Girls, 1326; Total, 2721
Average of 10 corresponding years 1869-78, 2401'1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	785	739	1524
Average of the ten years 1869-78	781'6	747'6	1529'2
Average corrected to increased population ... ..	...	...	1636
Deaths of people aged 80 and upwards ... ..	...	...	58

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West	561359	...	6	14	2	3	...	5	...	6
North	751729	2	16	20	4	5	...	8	1	3
Central	334389	...	7	5	1	1	...	2	...	2
East	639111	...	12	32	1	5	1	7	2	9
South	967692	1	9	30	3	11	3	10	2	6
Total	3254260	3	50	101	11	25	4	32	5	26

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	...	30'297 in.
Mean temperature ... ..	...	...	...	...	...	...	43'2°
Highest point of thermometer ... ..	...	...	...	...	...	...	52'8°
Lowest point of thermometer ... ..	...	...	...	...	...	...	32'3°
Mean dew-point temperature ... ..	...	...	...	...	...	...	39'8°
General direction of wind ... ..	...	...	...	...	...	...	N., N.W., & S.W.
Whole amount of rain in the week ... ..	...	...	...	...	...	...	0'01 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Nov. 8, in the following large Towns:—

	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Nov. 8.	Deaths Registered during the week ending Nov. 8.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		In Inches.	In centimetres.
Boroughs, etc. (Municipal boundaries for all except London.)										
London	3620868	48'0	2721	1524	53'8	32'3	43'2	6'22	0'01	0'03
Brighton	105608	44'9	61	30	53'0	32'0	42'4	5'78	0'00	0'00
Portsmouth	131821	29'4	112	49	52'5	34'5	44'4	6'89	0'00	0'00
Norwich	85222	11'4	54	38	52'2	37'0	44'7	7'06	0'18	0'46
Plymouth	74293	53'3	44	32	52'8	33'0	44'7	7'06	0'00	0'00
Bristol	209947	47'2	139	94	...	...	...	...	...	...
Wolverhampton	75100	22'1	65	39	50'7	29'5	42'5	5'84	0'00	0'00
Birmingham	388884	46'3	269	158	...	...	...	...	...	...
Leicester	125622	39'3	65	44	53'0	33'0	43'8	6'56	0'01	0'03
Nottingham	169398	17'0	127	77	53'8	33'6	42'9	6'06	0'04	0'10
Liverpool	538333	103'3	401	251	...	...	...	...	...	...
Manchester	361819	84'3	240	146	...	...	...	...	...	...
Salford	177849	34'4	144	70	...	...	...	...	...	...
Oldham	111318	23'9	64	33	...	...	...	...	...	...
Bradford	191046	26'5	138	80	52'3	33'8	43'6	6'45	0'00	0'00
Leeds	311860	14'5	260	160	54'0	35'0	44'6	7'01	0'00	0'00
Sheffield	297138	15'1	230	106	56'2	33'6	44'0	6'67	0'03	0'08
Hull	146347	40'3	138	69	54'0	32'0	42'8	6'00	0'11	0'28
Sunderland	114575	41'4	95	66	57'0	34'0	45'3	7'39	1'27	3'23
Newcastle-on-Tyne	146943	27'4	96	63	...	...	...	...	...	...
Edinburgh	226075	53'9	162	70	54'2	29'0	43'8	6'56	0'02	0'05
Glasgow	578158	95'8	349	222	58'3	30'5	46'3	7'95	0'07	0'18
Dublin	314666	31'3	157	182	52'1	30'3	43'9	6'61	0'00	0'00
Total of 23 Towns in United Kingdom	8502896	33'6	6121	3608	58'3	29'0	43'9	6'61	0'11	0'28

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30'30 in. The lowest reading was 29'89 in. at the beginning of the week, and the highest 30'44 in. on Friday evening.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

THE DIAGNOSIS OF DISEASES OF THE SPINAL CORD.(a)

By W. R. GOWERS, M.D., F.R.C.P.,

Assistant Professor of Clinical Medicine in University College;
Assistant Physician to University College Hospital, and to the National
Hospital for the Paralysed and Epileptic.

(Continued from page 526.)

WE may now pass to the consideration of the deep reflexes. These are also of great importance, physiological and pathological. The afferent impressions which excite them originate from structures deeper than the skin—from tendon, from muscle, and perhaps also from joints. The group includes those which have been called "tendon-reflexes," a term objectionable as a general designation, because, as we shall see, the relation to tendon of some which have been called by the name is exceedingly doubtful; and of all it is true that they are not exclusively related to tendon.(b)

The best known of these reflexes is that which has been termed the "patellar tendon reflex," or "knee phenomenon," or "knee reflex." The latter is, I think, the preferable term. If, when the knee is flexed so that the leg is free to move, the quadriceps femoris being gently extended, the patellar tendon is struck, the quadriceps contracts and jerks the leg forwards. The most convenient position is with the knee to be tested flexed nearly, but not quite, at a right angle. It should not hang vertically, or the swing caused by the blow may be mistaken for the reflex movement. It must be free to move, or a slight reflex jerk will not be perceived. The posture commonly employed is with the leg to be tested across the other, the knee of the latter being at a right angle. But if the leg to be tested is stout, its tension in this position may be too great to permit of any movement. In such case the best posture is for the observer to place his arm beneath the patient's thigh, just above the knee, and rest his hand on the patient's other knee. Not long ago, I saw a rather stout man, well known to many members of our profession, who was uneasy because a physiological friend had been unable to produce this reflex upon him. His legs were so stout that, in the posture commonly employed, no movement occurred when the patellar tendon was struck. But when the thigh rested on the observer's arm, in the way I have described, the tap on the tendon caused a ready reflex, much to the satisfaction of the individual examined, whose anticipations of impending locomotor ataxy were thus removed. Children may sit on the edge of a chair, but if so, and the legs are vertical, the swing and the reflex must be carefully distinguished. The side of the extended hand is a convenient instrument for giving the blow. Now and then, when very slight, a percussion hammer elicits it more readily (as Erb abroad and Buzzard in this country have pointed out). I have never, however, succeeded in obtaining it with the hammer, and not with the hand, except in cases in which the space between the patella and tibia was too small to permit of a suitable blow with the hand. It may commonly be obtained as readily through one or two garments as upon the skin. If its existence is doubtful, however, the skin should be bared. In many cases the reflex may be obtained by a downward blow upon the patella, by a blow on the quadriceps tendon above the patella, or by a blow on the substance of the muscle, almost as readily and strongly as by a blow on the patellar tendon. In cases in which it has been in great pathological excess, I have even excited it by a blow on the tibia. When the patellar tendon is tapped, the afferent impulse probably originates from the tendon, but it may certainly, in some cases, originate away from the tendon. Hence I think that the term "knee reflex" is a better designation than "patellar tendon reflex."

It is, without doubt, a true reflex action, depending on the integrity of the reflex loop at the level of the second and

third lumbar nerves. It is very readily impaired by disease of any part of this loop, of the posterior nerve-roots outside the cord, or in the posterior column (and hence it is commonly, though not invariably, lost in locomotor ataxy). It is impaired also by disease of the grey matter, or of the anterior roots, or of the mixed nerve-trunk. It is occasionally, but very rarely, absent in normal conditions, perhaps in about one individual in a hundred (Berger). It is excessive in some forms of cord disease, especially in those in which the descending degeneration occurs in the lateral columns. Thus it is excessive in hemiplegia on the weakened side, and is therefore changed in the opposite way to the superficial reflexes, which we have seen are lessened in hemiplegia. It is excessive in disease higher up the cord, which is accompanied by descending degeneration on both sides.

The next important phenomenon belonging to this group occurs at the ankle-joint, and its importance and significance are very great. It has been termed the "Achilles tendon reflex," but it is, I believe, in the highest degree doubtful whether, as ordinarily observed, it has anything to do with the Achilles tendon. It is best studied in cases in which it is in excess—the same class of cases which present excess of the knee reflex. In these, if the calf muscles, which extend the ankle-joint, are suddenly put on the stretch by pressing the hand against the sole of the foot, a quick contraction occurs, instantly ceasing, but, if the pressure is kept up, instantly renewed, and recurring, as long as the tension is maintained, as a clonic series of spasmodic contractions—the "ankle clonus." The movement is very uniform, from five to seven contractions occurring per second. By attaching a writing point to the foot, and making it trace a line on a revolving cylinder of blackened paper, I have obtained such tracings as I now show you, which are almost as regular as the tracing obtained from a tuning-fork. How these contractions arise is a matter of some dispute. They are evidently excited by the sudden tension, the effect of the tension on each relaxation exciting a fresh contraction. If the tension be applied very gently, no contraction occurs, but then, if the Achilles tendon is tapped, the muscle instantly contracts. Hence it has been assumed by Erb that the sudden tension excites a contraction by stimulating the nerves of the tendon, and that each contraction is reflex. But, during the passive tension, a tap on the muscle itself will cause a similar contraction, and so also, I have found, will a tap on the muscles in front of the leg, and it is not conceivable that the muscle-tap and the front-tap stimulate the tendon. Moreover, I have found that the time which elapses between these three taps and the resulting contraction is too short for the briefest reflex process (according to received physiological facts). Hence it seems probable that every contraction is excited by the local stimulation of the fibres of the muscle, the passive flexion exciting them by the sudden tension, the tap on the Achilles tendon also increasing their tension or sending a vibration through them, the tap on the muscle and on the front of the leg sending a slight vibration through the muscle (to be felt by the hand applied to the calf), which excites a contraction in the state of extreme irritability. This irritability, however, has also to be explained. It is clearly the result of the passive tension placed upon the muscle, and it is probably a true reflex phenomenon, the afferent impulse being the tension on the muscle. Additional evidence that the afferent impulse originates in the muscle, and not, as has been supposed, in the tendon, is furnished by the fact (which you may easily verify on yourselves) that the passive flexion of the foot causes a sensation of distinct pain in the muscle, and no sensation in the tendon—the pain proving that an afferent impulse does originate in the muscle under the conditions. If it should be ultimately proved that the short interval which I have found to intervene between the tap and the contraction (about one-thirtieth of a second) is sufficient for such a reflex process, each contraction may be reflex, but it will remain true that the impulse exciting them has (except perhaps when the tendon is tapped) nothing to do with the tendon, and that the term "tendon reflex" is an inaccurate and misleading term. It is essentially a muscular reflex phenomenon, not a tendon reflex.

I would call especial attention to the contraction which occurs when the muscles in the front of the leg are tapped. It may be obtained when the clonic spasm cannot be set up, and constitutes a very delicate and convenient test of morbid irritability.

(a) An Address delivered before the Medical Society of Wolverhampton, October 7, 1879.

(b) For a knowledge of these phenomena we are largely indebted to two distinguished German physicians, Erb and Westphal. Attention was first called to them in this country by Dr. Grainger Stewart in these columns, and subsequently by Dr. Buzzard in the *Lancet*. The evidence on which the following view of their nature is based will be found in a paper in the forthcoming volume of the *Medico-Chirurgical Transactions*.

A clonus quite similar to that just described can be sometimes obtained in the peronei (a lateral ankle clonus), and also in the plantar muscles of the great toe—in each case by passive tension. I show you a tracing of the latter. All have nearly the same time—about six per second.

These are not entirely pathological phenomena. In health the front-tap contraction may sometimes, although very rarely, be obtained. The tendon-tap contraction may sometimes be obtained. The ankle clonus *can never be obtained by sudden passive tension*. Thus produced it is absolutely pathological, and of the highest importance as certainly indicative of a structural change in the spinal cord. Its diagnostic importance can hardly be over-estimated. In most cases in which it occurs, the nutrition and sensibility in the legs are unimpaired, and the weakness in the legs is likely to be regarded as “functional,” or, in a woman, as “hysterical.” I have seen many such cases, thought to be hysterical, in which it needed but a touch on the sole of the foot to excite the ankle clonus—an absolute proof of the existence of organic disease.(c)

But although, thus produced, the phenomena are pathological, we may get evidence of the same kind of reflex action in health in another way. If a rhythmical contraction can be set up voluntarily, and gentle tension in the gastrocnemius maintained, as by sitting on the edge of a chair with the ball of the foot resting on the ground, the contractions will go on involuntarily—a normal ankle clonus, which has precisely the same time (about six per second) as the morbid clonus. It is evidently the same phenomenon, the difference being that it cannot in health be excited by passive tension. For *this* to be effective a morbid reflex irritability is needful, such as only exists in organic disease. In organic disease the posture I have just described excites the clonus very readily; and the jerking legs of paraplegics as they sit must be familiar to you. In attempting to walk, also, the tension on the calf-muscles has the same effect, and the patient may be jerked violently by the spasm.

Thus I think that these phenomena depend on the fact that passive tension in the muscle develops, by a reflex mechanism, a state of local irritability, it may be of slight tonic contraction in it, in which a single contraction may be locally excited with great readiness. It is probable that this is part of a general system of muscular reflex relation between tension and tone, of the highest importance in the associated action of muscles, and that the reason why, in certain muscles, these phenomena are more readily observed, is because in these, in the act of walking, at every step contraction succeeds tension, and so the reflex relation between the two has attained a higher degree of development. I have never seen the ankle clonus in a child who had never walked.

The so-called “tendon reflexes” which occur in the arm are not of importance in the diagnosis of disease of the spinal cord. Before leaving these spinal reflex phenomena, I may, parenthetically, illustrate to you, by an example, the manner in which they are changed in cerebral disease, and the occasional diagnostic importance of their alteration (to which attention has been ably directed by Rosenbach). As I told you, the superficial reflexes, especially the trunk reflexes, are lessened, the deep reflexes are increased, especially when there is any degree of descending degeneration in the cord. Under these circumstances the ankle clonus and front-tap contraction may be obtained. Not long ago, in investigating these reflexes, I examined a man who was suffering from convulsions, said to be stronger on the left side than on the right. The left limbs possessed full strength, and no weakness was complained of elsewhere. The epigastric and cremasteric reflexes were, however, absent, and the abdominal reflex was slight on the right side, although all were well marked on the left. In the right leg the knee reflex was excessive, and the ankle clonus and front-tap contraction could readily be obtained, while they could not on the left. This discovery led to careful examination of the strength of the right limbs, and slight but distinct weakness of the right arm and leg and left side of the face was found, and has since increased, and optic neuritis is now developing. In this case organic disease of the brain—probably a tumour in the pons—certainly exists; but it

might readily have been overlooked, and probably would have been overlooked for a time, or its position misconceived, had it not been for the indications afforded by these reflexes.

To return to the spinal cord. The next function to be mentioned is that by which it influences the co-ordination of muscular movements, which depends chiefly upon the posterior columns, and may be lost when there is disease in this situation, as in locomotor ataxy. It is not, however, the whole of the posterior columns which are related to this function, but merely the part we have distinguished as the root zone, that through which the fibres of the posterior roots pass. The most complete ataxy may result from disease limited to this situation. It is not probable that movements are, strictly speaking, co-ordinated in the cord: the probable seat of this function is the base of the brain. Disease of the posterior columns may interfere with the influence of the co-ordinating centres upon the muscles or lower centres. But we have seen that, by means of the deep muscular reflex actions, muscular contractions become associated; tension influences contraction; and thus there is a reflex grouping of muscular actions, which undoubtedly plays a very important part, not only in the actual arrangement of the contractions, but also by, so to speak, moulding the spinal centres by establishing lines of lessened resistance through them, and so facilitating the voluntary co-ordination. In locomotor ataxy these deep reflexes are impaired (if we are to judge by the knee reflex, which is lost in the vast majority of cases), and the loss of these reflexes may play an important part in the production of the symptoms—how large a part we cannot at present say, only that it is probably not the sole cause of the symptoms.

We may consider next the controlling functions of the cord; and first, the influence which it exercises over nutrition. The nutrition of the muscles, bones, joints, and skin are all under the influence of the cord; the former through the anterior nerve-roots, the latter through the posterior.

For diagnostic purposes the most important is the influence on the nutrition of the muscles. The path of the influence is the motor fibres in the anterior roots and nerves. Changes in the nutrition of the muscles, which do not originate in them, depend on changes in the nutrition of the motor nerve fibres. But most, perhaps all, motor fibres are the prolonged processes of the motor nerve cells, and may be regarded as parts of the nerve cells, sharing all changes in their nutrition. The nerve fibres are excitable by electricity, and changes in their nutrition are accompanied by changes in their excitability. By the use of electricity we are able to ascertain their state of nutrition, and thus to learn what is the condition of the nerve cells in the cord, provided there is no disease separating the part of the fibre tested from the influence of the cells. Hence, the value of electricity in the diagnosis of diseases of the spinal cord.

In a normal state, if you apply either the faradaic or the voltaic current to a motor nerve, there occurs, as you doubtless know, a contraction in the muscles, continuous when the faradaic current is applied, but, if the voltaic current is used, occurring only when the current commences or ceases to pass—i.e., when the circuit is “made or broken.” In proportion as the nutrition of the nerve fibres is impaired, their excitability is lowered; a stronger current of each kind is required to excite them and cause contraction in the muscles they supply. When their nutrition is much impaired—i.e., when the fibres are “degenerated”—no contraction can be obtained even with the strongest currents.

The changes in the excitability of the muscles are less simple because in them there are two excitable structures—the terminations of the nerves, and the muscular fibres themselves. Of these the nerve fibres are the more sensitive to faradisation, and the faradaic stimulation of a muscle under normal circumstances is by means of these motor nerve endings. Thus we find that its excitability corresponds in degree to that of the motor nerve supplying it. The muscular fibres themselves are, even in the normal state, less sensitive to faradisation than the nerve, apparently because they are incapable of ready response to a stimulus so very short in duration as are the shocks of which the faradaic current consists. The proof of this consists in the fact that under the influence of curara, which is believed to remove the excitability of the terminations of the motor nerves, the

(c) The only apparent exception to the rule is the fact that it may sometimes be obtained in cases of chronic rheumatic joint-affection. But in all such cases which I have seen there has been other evidence that the joint-affection has led to secondary changes in the spinal cord.

muscle requires a stronger faradaic current to stimulate it than in the normal state. But under these circumstances the slowly interrupted voltaic current stimulates the muscle as readily as in the normal state, a contraction occurring when the circuit is completed or broken—distinctly slower than that which occurs when the nerve fibres are intact, and hence almost certainly due to the stimulation of the protoplasm of the muscular fibres themselves. The fact that, under normal circumstances, the contraction which is caused by the voltaic current is as quick as that caused by the faradaic shock, is ground for believing that, in health, the voltaic, as well as the faradaic current, causes the muscle to contract chiefly by exciting the motor nerve endings. When the motor nerve is degenerated, and will not respond to faradaic or voltaic stimulation, the muscle also loses all its power of response to the former. Apparently the nerve degeneration is accompanied by changes in the nutrition of the muscular fibre, by which any power of response to faradisation, which it possessed in the normal state, is lost. But the response to the voltaic current remains, and becomes quickly more ready than in health, apparently in consequence of some nutritive changes which develop what the older pathologists called, truly enough, "irritable weakness." Moreover, there may often (though not always) be observed a change in the readiness of response to a certain mode of stimulation with voltaism—a qualitative change, as it is termed. In health, the first contraction to occur, on gradually increasing the strength of the current, is at the negative pole when the circuit is closed, and a stronger current is required before contraction occurs at the positive pole. But, in the morbid state we are discussing, contraction may occur at the positive pole as readily as, or even more readily than, at the negative. This condition, then—faradaic irritability lost, voltaic irritability increased and often changed in quality—is termed the "degenerative reaction," because it occurs when the nerve-fibres are degenerated; and if we test *them* we shall find no response to any stimulus, voltaic or faradaic. It occurs when the nerves are separated from their motor nerve cells, and if no such separation exists it indicates an acute degenerative change (not necessarily irrecoverable) in the motor nerve cells of the cord. It is well seen in acute myelitis of the anterior cornua (as infantile palsy).

But the motor nerve cells and fibres often undergo changes in nutrition of a much more chronic character. In this condition the irritability of the fibres is lessened gradually and slowly. The irritability of the intramuscular nerve endings is also lessened, just in proportion to that in the nerve trunks, and we have a diminution to both faradisation and voltaism. The nutrition of the muscular fibres is slowly, gradually impaired; and when the nerve fibres are much affected the muscular fibres are also. There is no stage in which the nerve fibres are wasted and the muscular irritability retained; hence there is no condition of persisting or increased voltaic irritability such as characterises the degenerative reaction just described. Irritability is changed to the one form of stimulus just as to the other. This form of change is seen in many very chronic spinal affections, and especially when the nerve cells suffer—not in consequence of disease primary in them, but as a result of degeneration or irritation spreading to them from above. This is seen, for instance, in the wasting which occurs sometimes in hemiplegic limbs. Between these two forms there are intermediate conditions, especially in subacute cases of disease of the anterior cornua. (d)

Frequently the lowered irritability of degeneration in the nerves is preceded by a slight increase of irritability, very transient when the degeneration is acute, of longer duration when the degeneration is of the slower variety just noticed. Thus, in the early wasting of hemiplegia, increased irritability may be found, slowly yielding to diminution. In some morbid states, again, in which the change of nutrition in the cells and fibres is extremely slight, an increase may alone be discovered. I have found such an increase, for instance, in diseases regarded as functional, as paralysis agitans and chorea, and it is an interesting proof of the molecular changes which underlie, or result from, functional maladies.

In employing electricity as a means of diagnosis, it is well

(d) The various changes in irritability have been thought to indicate the existence and various affections of separate centres for the nutrition of the nerves and muscles, apart from, though acting through, the motor nerve-cells. Remembering that the nerves and muscles contain fibres which suffer in different degrees, the phenomena at present ascertained may, I believe, all be explained on the simpler principle stated in the text, without the assumption of these special centres.

to use small electrodes so as to be able to concentrate the current on a single muscle. Great care must be taken to place these electrodes on corresponding points on the two sides. It is convenient to be able to interrupt the current at the battery, so that the effect of the passage of the current may not be obscured by the mechanical effect of the application of the electrode. In Stöhrer's faradaic battery this can readily be done by pressing the hammer with the third finger, while the rod graduating the current is raised or lowered with the thumb and first finger. Convenient faradaic batteries are the small instruments now made by Stöhrer, in which an india-rubber diaphragm covers the cell, and through this the zinc plate is inserted when wanted. A stopper secures the acid in the cell when the battery is not in use. The circuit is completed by a hook, which itself supplies a convenient mode of interruption; and by its means we may employ the isolated faradaic shock (as well as the current, which consists of a rapid succession of shocks). The isolated shock is often useful, because it is much less painful than the rapid series of shocks, and is especially convenient in the examination of children. A mechanical interrupter is still more essential in the case of the voltaic battery, in which the stimulation only occurs when the circuit is made and broken; and no battery is suited for use for diagnostic purposes which does not possess such a means of interruption.

In examining muscles and nerves we avail ourselves, whenever we can, of the opposite side for comparison, and when we cannot, we must, if there is any doubt, compare the results obtained with those yielded by a healthy individual. Two conditions may be tested—first, the lowest strength of stimulus to which the muscle or nerve will respond; and secondly, the relative degree of response to a stronger current. The former is the more important, but has perhaps been insisted on too exclusively, for the latter is important also. If a few fibres of a nerve are healthy, and the others are degenerated, contraction may occur with as weak a stimulus as in the healthy nerve; but if the current be made a little stronger, the contraction in the diseased part may remain the same when that on the healthy side is energetic. Both irritability and power, therefore, should be noted.

The nutrition of bones also probably depends on the anterior grey matter, but the influence is shown chiefly by the effect of disease in retarding the growth of bones, and not by any symptom of value in diagnosis.

The nutrition of the skin and subcutaneous tissues depends upon nerves which have their course in the posterior sensory roots, but whether there are special trophic fibres is quite unknown, and the centre on which it depends is equally unknown. It is doubtful whether simple loss of the function of the posterior roots leads to lesions of nutrition. They may occur in this condition from the anæsthesia depriving the patient of sensory information when change of posture is required to prevent damage from pressure. Occasionally, however, sloughing and vesication of the skin occur with extreme readiness, and on the least local disturbance, and even with none. This is the case when the lesion is irritative in character, especially in destruction of the cord at the level from which the sensory nerves to the part proceed, and sometimes in disease higher up, as in some cases of acute myelitis.

(To be continued.)

FRACTURE OF THE THIRD CERVICAL VERTEBRA.—Dr. Eberman, of Lancaster, Pennsylvania, relates the case of a man about seventy years of age, who fell while descending steps from a hayloft, and struck his occiput violently against the ground, thus forcibly throwing his head forward on the chest. After remaining insensible for a considerable time, he arose, and, placing both hands to his neck, walked across half a square to the bar-room of an hotel, where he remarked that he thought his neck was hurt, and drank a glass of whisky. He then returned to the stable, laid down on the hay, and died in about half an hour. At the autopsy the third cervical vertebra was found to be fractured through the body; the arch on the right side was broken entirely through; the articular surfaces on both sides were fractured through the middle; the transverse process on the right side of the atlas was broken off; and the intra-spinal and posterior vertebral ligaments were ruptured. The spinal cord remained intact.—*Amer. Jour. Med. Science*, October.

ORIGINAL COMMUNICATIONS.

FOUR CASES ILLUSTRATING THE CLINICAL HISTORY OF LOCOMOTOR ATAXY.

By JAMES RUSSELL, M.D., F.R.C.P. Lond.,
Senior Physician to the Birmingham General Hospital.

(Concluded from page 500.)

It may be worth while to add a short description of the following case as a sequel to the four cases already described, by way of contrasting their phenomena with a group of irregular movements, prominent in certain forms of disease, which, on superficial examination, may be mistaken for the movements of locomotor ataxy, and yet are quite distinct from them. Though I have no conclusive evidence as to the seat of the morbid change in the case I am about to narrate, there can, I think, be little doubt that in the main it concerns the cerebellum, or at least the parts beneath the tentorium. From this point of view the description of the symptoms derives additional interest from the opinion often expressed by Dr. Hughlings-Jackson as to the peculiar relation which he believes to subsist between the cerebellum and the function of locomotion. A clear and compendious statement of this opinion may be found in the *Medical Times and Gazette* for October 26 of last year.

It is quite needless for me to describe the general distinctions which separate this case from one of locomotor ataxy; they are sufficiently obvious on the face of the history. Referring to the motor disorders alone, I may notice how greatly the derangement in the trunk-movements, during standing or walking, predominates over that of the lower extremities. And not in locomotion alone did the failure in the muscular apparatus of the trunk impede motor acts by the limbs. The singular artifice the patient was compelled to employ, by assuming a peculiar attitude, in order to conduct certain operations in dressing, and the comparative ease with which the limbs were brought into play when once the body had been steadied, demonstrate at once to how great a degree the extremities depend on the trunk for performing their appropriate acts, and bring the disorder of the former in the present instance into subordination to that of the latter. Yet, through all, it was evident that it was only as regarded the ability to preserve a steady attitude that the trunk-movements were in fault; in other acts their function was unimpaired. The trunk, too, was probably implicated from the first, certainly from a very early period, as the result of my observations eight years ago clearly demonstrates.

Then the movements of the lower extremities, though abrupt and not fully controlled, were restrained within normal limits, and had little of the ataxic character. As to the derangements of the trunk-movements, such derangements were of a paretic description.

Note, also, that notwithstanding the long duration of the case (over thirteen years), the disorder in the lower extremities had made little or no progress, whilst locomotion was entirely prevented by increased trouble from the trunk.

I am, of course, aware that the foregoing remarks apply with less force to the arm-movements than to those of the legs, though they are not without application to these. As regards what trouble there was in the movement of the eyes, Ferrier's observations render it probable that the connexion was much closer.

Case 5.—Serious Locomotor Disorders, connected, probably, with Disease in the Region of the Cerebellum.

The patient is thirty-eight years of age. His disease is now of thirteen years' duration. It began with unsteadiness in his legs and staggering in walking, accompanied by some vertigo. I am unable to find that giddiness has been a prominent symptom, though it is spoken of both by the patient and by his wife. Three years later he began to experience diminution in the power of regulating the movement of his hands, particularly on the left side. He was a teacher of music, and played the organ, and in process of time he found so much difficulty in using his left hand that he was compelled to substitute the pedals so far as he could; if he

employed his left hand he "got into a mess." At a later period articulation became impaired.

He was under me at the hospital for a short time, eight years ago. He then could not button his shirt with his left hand; it was just practicable to decipher his name when he had written it with his right hand—each letter was distinct from the others, but they varied in size, and the capitals especially were badly formed. Muscular power was considerable, if not normal.

At that period sexual passion was much lessened; nevertheless, his wife has had two children since leaving the hospital. Other particulars respecting muscular acts may be stated in connexion with the visit I lately paid him. He continued to play the organ for some time longer, though, as I had an opportunity of witnessing, in a very imperfect manner, but was finally obliged to abandon his occupation, and for a considerable time has been unable to leave his house through loss of the ability to walk.

I called on him the other day. I found his nutrition probably as good as his depressed circumstances could allow. Resistance to passive movement in the lower extremities was powerful. He was quite unable to walk without supporting himself by the table; the forward movement of the legs was abrupt, but was not carried beyond the distance designed; the heel was placed heavily on the ground; there was no disposition in the feet to cross one another, nor was there any flinging or jerking of the limbs.

Eight years ago, as my notes state, he separated his feet considerably; sometimes the point of the foot tended to drag, but at other times the feet were well picked up. In walking alone, at that time, the body bent forwards, the walk quickened nearly to a run, and he was in danger of falling. Though no increase in the difficulty of standing was created by blindfolding at that time (nor at my recent visit), the difficulty of walking was much increased thereby. At the present time, as already stated, independent locomotion is utterly impracticable. Eight years ago he was unable to stand for longer than a second, with his heels placed together; and so it is now. He sways backwards and forwards through want of consentaneous action in the trunk-muscles, and now and then suddenly bends forwards as though he would lose his balance. It is remarkable that, as in locomotor ataxy, when sensibility is impaired, he is much aided in maintaining his position by simply holding my finger. When putting on his trousers, after I had concluded his examination, he assumed a curious position: he bent his body and placed the crown of his head against the wall. Supporting himself in this manner, and rendering himself steady, he accomplished this part of the process of dressing with little trouble. When sitting, he readily drew on his stockings and boots, and showed no difficulty in placing his legs and feet in the required position. His articulation was sometimes very difficult to be understood, not from any stuttering, but from thickness in the linguals, chiefly. His intonation was decidedly nasal; but I am not sure that this was not a natural peculiarity. His palate was symmetrical, and the action of its muscles was equal and ready. Nor could I find any fault with the movements of tongue, lips, or face. Without glasses he distinguished delicate fingers of a watch; with his glasses he read easily. Eight years ago the disc was healthy. I had not the opportunity of using the ophthalmoscope at my recent visit. He now converges properly; but was curiously awkward in following my fingers with his eyes, and was himself conscious of the difficulty. He is slightly deaf with the left ear.

He has some difficulty in expelling urine. There has been throughout entire absence of pain. Eight years ago all forms of sensibility, including electro-sensibility (and electro-contractility), were normal. Sensibility to contact is normal still. I could not test other forms of sensitiveness. Cutaneous reflex sensibility (sole of foot) was normal eight years ago; it is now low. Patellar reflex is quite normal; it is more active in the right than in the left leg.

During the last few months he has become very irritable, and once or twice has threatened his wife and children with a knife. He has also manifested some tendency to entertain delusions.

NOTE.—Since my last paper was in type I have again seen the patient who is the subject of my fourth case. Patellar reflex has returned with considerable activity in the peculiar form I described in my report.

ON CORNEAL TRANSPLANTATION.

By J. R. WOLFE, M.D., F.R.C.S.E.,

Surgeon to the Glasgow Ophthalmic Institution, and Lecturer on Ophthalmic Medicine and Surgery in Anderson's College.

IN the spring of 1872, I communicated to my excellent and learned friend, Mr. Henry Power, the following case, which was then under my care. The patient had met with an accident to his eye while working in a ship-building yard. I found the lens opaque, and bulging forward along with the iris into the anterior chamber, so that it almost touched the cornea; the small space left was filled with bloody fluid, which obscured the extent of the wound, and allowed a very fine tear of the cornea to escape observation. I proceeded at once to extract the lens by an inferior linear section, which was very easily effected; but after the lens came away, I found that the injury to the cornea formed two sides of a triangle, which was almost completed by the corneal incision (Fig. 1). We were thus left with a loose triangular piece of cornea. As the eye looked in every way healthy, and the operation was so far satisfactory, I simply replaced the loose portion of cornea, and kept the eye shut for two or three days longer than usual in such cases. When I opened it, I found that vision was perfectly restored, and, to my great astonishment, the loose piece of cornea had not only adhered, but had preserved its transparency. I mentioned this as a remarkable fact, as it pointed in the direction of replacing an opaque cornea.

FIG. 1.



Shortly afterwards, Mr. Power exhibited some cases of transplantation of the cornea from the rabbit to the human subject, by which, although it did not lead to any practical result, he rendered great service to science in familiarising us with the subject. He has since published details of a case where he transplanted a human cornea, which he had preserved in a solution of chloride of sodium.(a)

I satisfied myself with the transplantation of conjunctiva from the rabbit to the human subject for the cure of symblepharon,(b) and succeeded in restoring vision (by artificial pupil) and mobility to many useless eyes. This method I have the satisfaction of finding generally adopted as the only remedy applicable to such cases.

With regard to corneal transplantation, after a series of experiments extending over several years, I have reached certain conclusions, which may be stated as follows:—

1. The cornea can maintain its vitality and transparency when transplanted from one place to another, but to be successful it must be taken from a freshly enucleated human eye.

2. All the incisions in the cornea must be clean, as any tearing is likely to lead to suppuration, and the measurements of the graft, etc., must be exact.

3. It must be done in such a manner as not to damage the subjacent structures. This is absolutely impossible if we attempt the transplantation of the whole of the cornea, because as soon as we remove it the lens and vitreous come out, bleeding follows, and loss of vision is inevitable even if we secure corneal transparency. But the removal of the whole cornea is not necessary, and the chances of maintaining its vitality decrease in proportion to its extent. Hence, if we aim at the restoration of sight by transplanting a transparent cornea, we must content ourselves with a small corneal graft, removed along with conjunctival bands, which not only assist to keep it in position, but also by their adhesion afford it a chance of preserving its vitality, even if we do not get immediate union between the corneal edges.

These being the axioms which I have established in connexion with the subject, my next aim was to devise instruments which would answer all the conditions.

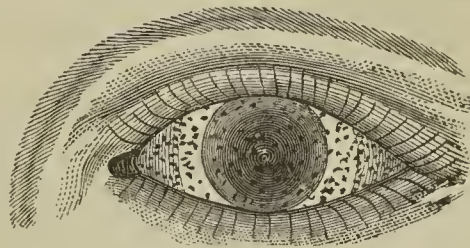
In March, 1877, Dr. Sellerbeck, of Berlin, visited our institution, and to him I explained the principles of my proposed operation, complaining of the inefficiency of all the instruments which Paris and London makers had supplied to me for the purpose. Dr. Sellerbeck got an instrument made for him in Berlin, and performed one operation which was successful in restoring sight. This case he exhibited to eminent surgeons in Berlin.

I do not mention this with the view of asserting my priority

of discovery, for indeed, in a paper which he published, he shows that corneal transplantation has long been the yearning of German surgeons;(c) besides, I consider all disputes about priority puerile, and would never trouble any journal in vindicating my claim. If another gentleman has succeeded in showing the first successful case, he is welcome to the credit of it. My operation for corneal transplantation, and for detachment of the retina, were suggested to me, not by the reading of old records, but by observation of the process followed by nature in the repair of injuries.

Having at last succeeded, as I think, in finding out an operative method calculated to fulfil the conditions necessary to a successful issue, I have operated, on October 29, upon an almost hopeless case of opaque cornea, the appearance of which is shown in Fig. 2.

FIG. 2.



John P., about forty years of age, met with a serious injury two years ago by an explosion, which burned his hands, face, and head, and almost destroyed his eyes. The right eye is completely disorganised, and the conjunctival sac partly obliterated; in the left (shown in the figure) the conjunctiva is studded with powder and debris, the margin of the cornea is covered with a false membrane, the rest of it is totally opaque, with a perforation about the middle, where the iris protrudes. The eyeball is decidedly soft (T. 2). When examined with a lighted candle he unhesitatingly follows the flame in every direction, and this retinal sensibility to light is the only point of encouragement to attempt to restore sight by corneal transplantation; in other words, to risk a good cornea upon it.

Indeed, this cornea was intended for another patient, whose case presented much more favourable conditions, but through some mistake he was not forward in time, and as our present patient was the only one at hand, I proceeded to operate on him—I may say, with considerable reluctance.

The instruments I use are—a lance with a stop (Fig. 3), a grooved director (Fig. 4), and a double-bladed knife (Fig. 5) which fits into the grooves of the director. These vary in

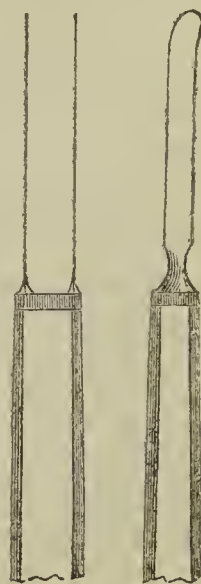
FIG. 3.



FIG. 4.



FIG. 5.



size according to requirements, and each set is marked with a number corresponding to the breadth of the graft in millimetres. Thus, my first set is marked 5, and is adapted for a flap five millimetres in breadth.

The patient being put under chloroform, a flap, broad at

(c) In 1339 the Medical Faculty of Munich offered a prize for the best work on that subject, but this led to no practical result, and the subject had completely vanished from ophthalmic literature when Mr. Power brought it again into notice.

(a) *Centralblatt für Praktische Augenheilkunde*, July, 1877.

(b) *Glasgow Medical Journal*, March, 1873.

the base and converging to the cornea (see Fig. 7), is taken from the ocular conjunctiva on each side, and dissected up to the transition fold. These are turned over on the cornea, and the eye removed in the usual way. The lance is then introduced in such a way as not to injure the conjunctival flap, and pushed in as far as the stop will allow. The same is done on the opposite side. The director is then passed through one of the openings, and pushed in front of the iris and lens, out through the opposite one (Fig. 6); the knives are placed in the grooves, and the corneal flap separated. This is put into a little tepid water.

The other patient is then put under chloroform, and a similar corneal and conjunctival flap removed; but in this case the lance must be used in such a way as not to interfere with the pillars of the iris, and it must be rapidly withdrawn, so as to prevent as much as possible the escape of the aqueous humour, and the consequent falling forward of the iris. The transparent graft is then placed in position, and secured by stitches in the corners of the conjunctival flaps (Fig. 7).

In our case we found that the staphyloma above referred to, and other iris adhesions, were such that no broad director could be used. I had therefore to proceed by introducing my small probe-pointed corneal knife, turning the sharp edge up, and cutting out the cornea on one side; then, steadying it with forceps, I had to separate the other border with a single sweep of long sharp scissors. Thus we could not secure that straight symmetrical lacuna desired, and had to shape our flap somewhat tapering towards the nasal side so as to correspond. The dressing applied was simply three strips of adhesive plaster, dry lint, and a bandage.

FIG. 6.

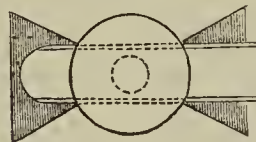
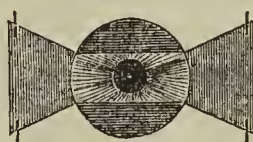


FIG. 7.



Under the circumstances we could hardly have expected a satisfactory result; but when the eye was examined, on the fifth day after the operation, we found the corneal and conjunctival grafts adhering like sticking-plaster. From the time of the operation until the eye was opened not a tear came from it, and there was not the least inconvenience or discomfort. We may say, immediate union had taken place (this I ascribe greatly to the conjunctival bands). The patient could distinguish features and count fingers. The improvement has been going on steadily, and on the ninth day, when examined by the Presidents of the Faculty of Physicians and Surgeons of Glasgow, and the Philosophical Society, he could not only count fingers, but could see to such an extent as to put his finger upon a ring on the hand of the examiner. The Professor of Physiology in the University saw him on the fourteenth day, and satisfied himself that the man had the power of exteriorating quickly and certainly.

I think it interesting to bring this case before the notice of the profession, not only for the remarkable issue of a case so hopeless that hardly any benefit could have been anticipated, but for the sake of pointing out the solution of the problem, how to transplant a human cornea safely and satisfactorily.

The principle of corneal transplantation seems to me to be sufficiently established, and it is only the *modus operandi* which has been occupying my attention. Now having, as I think, found a method of rendering this operation feasible, I would submit it to the profession for trial. Its important practical bearing is evident, considering the large number of persons who owe their blindness solely to an opaque cornea, and the many enucleated eyes, with transparent corneæ, which might be rendered available to supply the deficiency.

BACTEROMANIA.—Profs. Tommasi and Klebs have just discovered a new parasite, which infests those who are the subjects of intermittent fever. This mischievous being has received the name *Bacillus malariae*. We hold up to public vengeance this horrible animal, which, according to these gentlemen, is a microscopic fungus formed of numerous mobile and brilliant spores of an oval and elongated form, nine-thousandths of a millimetre in diameter!—*Presse Méd. Belge*, November 9.

INDIAN NOTES.

By SURGEON-MAJOR F. R. HOGG, A.M.D.

UPPER INDIA.

(Continued from page 395.)

DURING the period from March, 1873, to December, 1878, duty entailed encamping at Delhi, when Lord Northbrook held a durbar, when H.R.H. the Prince of Wales danced in the ancient halls of the Great Moguls, and lastly, when Queen Victoria was proclaimed Empress of India. Opportunities have occurred of seeing the pearl-white marble-rocks near Jubbulpore, the golden temples of Benares and Umritzur, the Taj at Agra, the Kootub near Delhi, the well at Cawnpore, the Residency at Lucknow, the sacred shrines near Muttra, the pilgrims bathing at Hurdwar fair, the magnificent canals, the burning ghâts, the botanical gardens at Saharanpore, and the Lawrence Asylum for soldiers' children on the hill of Sanawar. Either on business, else on expensive excursions, Allahabad, Meerut, Roorkee, Umballa, Loodiana, Kurnal, Ferozepore, Jullundur, Mean Meer, Mooltan, Lahore, Sealkote, Kussowlee, Dugshai, Subathoo, Simla, Dalhousie, Dharmasala, Dehra Doon, Landour, the tea plantations in the fertile Kangra Valley, and the lovely lake at Nyna Tal, have, amongst other places, been visited, and some described in the *Indian Medical Gazette*—namely, Mean Meer, Mooltan, Subathoo. At Netley, where 3000 soldiers annually are admitted from all foreign stations, my present duty, besides ward work (sometimes a daily list exceeding fifty patients), includes also medical invaliding—that is, to read over the cases, the detailed history extending over years (indeed, every document), to examine each man, and then to prepare the condensed final reports, numbering nearly 1000 since February last. Latterly, Cyprus and Zululand have contributed largely to the list, which numbers some from Malta, Gibraltar, Bermuda, Mauritius, Canada, China; but from the enormous, extensive empire of India, with its every variety of soil, climate, and meteorological conditions, come the shiploads of sufferers. Of the 60,000 Europeans there quartered, the army of Bengal will alone muster 37,000, with 3500 women and 6800 children. The principal diseases affecting women are continued and paroxysmal fevers, tubercular diseases, anæmia, bronchial ailments, dyspepsia, diarrhoea, dysentery, hepatitis, uterine complaints, and general debility. Children suffer with measles, whooping-cough, malarial fevers, tubercular diseases, anæmia, convulsions, conjunctivitis, croup, diphtheria, bronchitis, dysentery, diarrhoea, debility, and difficult dentition. In my experience the type of diphtheria, scarlatina, erysipelas, measles, pneumonia, and whooping-cough appeared far milder than at Woolwich. Diphtheria occasionally proves very deadly, even in good stations like Umballa. Diarrhoea, dysentery, and convulsions also fill so many little graves in the sandy, burning plains that it appears almost criminal for a practitioner to sanction any child being bottle-fed in stations where native wet-nurses are procurable. Prolonged lactation, so often required, cannot be managed by weakly English women prone to fever and hæmorrhage. Even at the hills, where officers suffer with gout, asthma, or cardiac affections, their wives during the rains may be tortured by non-malarial neuralgia or debilitating diarrhoea. At Subathoo, elevated 4000 feet, and surrounded by higher hills on a clay slate and limestone formation (accountable for hard water), goitre in 1878 temporarily affected a number of European children recently arrived from malarious Peshawur, where also the disease may appear. More prevalent on the crests of high mountains than down below, goitre has been noted also at Simla, Dharmasala, Mussooree, at elevations exceeding 7000 feet, as well as in the great open valley of Kashmir. In the hot plains sunstroke does not appear to spare young infants; and the milk difficulties, the food decomposition, and the many conditions leading to the production of threadworms, all add fuel to the fire of fatal dysentery or diarrhoea. The newly arrived young soldier in the plains, and not unfrequently at crowded, insanitary hill stations, may too often be attacked with enteric, especially if exposed to the blazing morning sun, to extreme fatigue, to bad food, to overcrowding, to excessive day or night duty, or if stationed in a place annually becoming more polluted after prolonged occupation. He may escape during the first and second year, only to be mildly infected in the third.

Fortunately, by hydropathic treatment with gradually cooled baths, aided by such remedies as turpentine and quinine, and above all things by skilled nursing, the mortality can be considerably reduced, and the patient returned to the ranks eventually an effective soldier. Of all diseases attacking the middle-aged, the broken-down by climate, or the battered drunken old soldier, the most deadly, the most insidious, the most intractable is dysentery. Cholera by comparison proves much more honest in its course towards death or complete recovery. The hills too often are of no avail. Get your patient out to sea, or still better out of the country, with despatch, and if possible do not let him return, at all events for a long time. Be very sparing with that splendid remedy mercury in treating syphilis; indeed, try and do without it, except in the case of strong officers, comfortably off, blessed with common sense, and enjoying all the comforts and advantages of long leave at selected hills with scanty rainfall. The soldier in the ranks is not in a position, and cannot be relied upon, to take sufficient care of himself. The poor fellow may get drunk on a wet night, may sleep anywhere, or in his sober senses perhaps sit gambling on damp grass, and thus may dysentery, defiant of ipecacuanha, originate, especially in stations where the water, vegetable, or meat supplies are unsatisfactory. For concussion of the brain, puerperal peritonitis, and certain acute diseases, mercurial inunctions have proved invaluable remedies. In my limited experience no local sores or ulcers, no tetanus, followed the hypodermic injection of the neutral sulphate of quinine, which answered, as a rule, satisfactorily in the treatment of ague; and if this practice became universal, the annual saving to the State might be calculated in thousands of rupees. Of course the quinine solution, the syringe, and the patient require some very simple precautions. When potato growth becomes better understood, and native prejudice against sewage farming is overcome by financial substantial results, scorbutic diseases will probably diminish. Every year cabbages, carrots, parsnips, turnips, cauliflowers, cucumber, beet-root, tomatoes, peas, artichokes, in some places celery and asparagus, are increasing in cultivation, if not in quality, to supplement native vegetables. Very fine strawberries and peaches at Meerut, Sealkote, Agra, and elsewhere. Most delicious tea to refresh the fever-stricken and persons suffering from incessant thirst in an exhausting climate can now be grown on many plantations. The quality of animal food must always be poor and extremely tough, excepting in the cool season, when for days beef and fair mutton can be kept—say at Lahore. Of the numerous edible fishes, the majority are flavourless, tasteless, as compared with venison, pea-fowl, quail, partridge, dove, hare, pigeon, or snipe of Upper India.

Some stations are hotter, with diminished rainfall—it is said, owing to forest destruction for fuel requirements. Others are more feverish, swampy, and water-logged, wherever irrigation has been conducted without sufficient reference to drainage, but, besides averting famines, the canals, supplied by the great rivers which take their rise in the glaciers of the Himalaya, create cool avenues, beautiful gardens, and shady groves in the desert, where for months green fields and luxuriant crops can cover the dusty soil; for instance, at Mean Meer. About the house the tobacco plant, the sunflower, maize, lemon plant, heliotrope, dill, borage, aniseed, mint, mignonette, myrtle, sage, and basil, may absorb ground poison. Drainage is attempted when practicable and local funds permit, excepting in flat, hopeless situations which cannot be abandoned. Hill retreats, improvements in water-supply, ingenious filters, cooling appliances, ice, hill beer, dry earth conservancy, rapid postal communication, and facilities of locomotion along excellent roads, are all comparatively recent undertakings. Warned by telegraph, authorities can quietly collect tents, mules, elephants, camels, coolies, cots, and in many places arrange for a whole regiment in a few hours being whirled by rail from cholera spots to isolated camps previously prepared—for instance, in the nearly rainless country about Ferozepore and Mooltan. Sick transport, sick-nursing, and cooking arrangements are matters of annually increasing endeavours to improve. Unfortunately, *something* is always happening to cripple finances and to check sanitary progress. Deficient, excessive, or irregular rain, and hill snow falls, extraordinary heat, prolonged drought, crop failures, cattle plagues, locust ravages, various blights, certain weeds, and saline efflores-

cence tending to soil-sterility, and the cruel visitations of variola, cholera, and malarial fevers, all retard hygienic efforts. Besides plagues, pestilence, and famine, frontier war expenses long delayed the construction of that noble and beneficent work the Ganges Canal. Earthquakes, hurricanes, dust or sand storms, thunder and lightning, heat, insects, and deluging rains, materially increase all building estimates. The tiny rivulet in the sand suddenly becomes a mighty river, furiously sweeping away roads, railway bridges, and the hovels constituting crowded cities. As the country inundation subsides, and the vindictive sun plays upon the filthy mud, outbursts fever, sparing no human beings—namely, at the popular station of Jullundur in 1878. Snake-bites of Europeans are exceedingly rare. A native at Dalhousie was the only case treated by me, and near the hut a magnificent black cobra was killed. During twenty-one years' service only two instances of hydrophobia noticed. When at Subathoo in 1877, three natives in a temple were struck by lightning—one killed, the others stunned for a while. Scorpions, wasps, and centipedes, bugs, fleas, mosquitoes, lice, and leeches seldom do permanent injury, yet at Jubbulpore and at the hills of Puchmuree hornet-stings have proved fatal to Europeans. Annually endless natives are bitten by dogs, wolves, foxes, jackals, camels, horses, ponies; occasionally clawed by tigers, bears, or cats; or else killed (on rare occasions) by elephants. Wolves, panthers, and jackals have been known to fly at the necks of sleeping children, and at civilised Simla after dark the leopards are about. One evening at Dalhousie some infants in perambulators on the Mall had a very narrow escape of being abducted into a dense forest of firs, oaks, and rhododendra. Under endless disadvantages, medical men on the spot are ever struggling to master the mysteries of disease, and, amongst others, the names of Ranald Martin, Morehead, Norman Chevers, and Maclean will always be associated with the sanitary welfare of India.

What with letters, newspapers, books, and periodicals, a sympathetic interest is taken in European topics by most exiles, who, hoping to return to friends and kindred, and their own fireside at home, live very carefully, and do their very best to treasure up their capital of strength, which will be taxed according to constitution, habits, luck, locality, and interest in the deteriorating climate of the plains.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CHARING-CROSS HOSPITAL.

A CASE OF PURPURA HÆMORRHAGICA—DEATH. (Under the care of Dr. SILVER.)

HENRY W., a tailor, aged fifty-two years, was admitted on January 16. In his family history there were no facts of any special bearing on the case. He stated that he had been married for thirty years, and was the father of nine children. Three of these were alive and had grown up healthy. The others had died in childhood of whooping-cough, measles, and other diseases of childhood. Until he was about twenty-seven years of age, patient had always been healthy. About that time he began to suffer with headache and sickness, and since then he had almost hardly ever passed a day without vomiting, sometimes as often as five times in a day. This frequency of vomiting would last from a few days to a week at a time, and the attacks were altogether independent of the taking of food or drink. He had been accustomed to drink freely, and always had plenty of good food, but in his work he had been much confined indoors, eating, drinking, sleeping, and working in the same room, and frequently not leaving it for a fortnight at a time. For the last ten years he had been attending at Middlesex Hospital for the vomiting and headache. He stated that during seven years he had been taking strychnine. He never had rheumatic fever or any acute specific disease. The bowels had generally been regular, but he had occasionally suffered from diarrhœa. He had never vomited blood nor passed blood by the rectum or the urethra until the illness for which he had come to this hospital, but he had occasionally bled from the gums.

During the month before admission he had been very drowsy, sleeping a great deal both by day and night; and on waking up he would eat voraciously at any time. He took to his bed entirely five days before admission. It was then first noticed that he passed large quantities of blood by the bowel. He was very thirsty, and complained of pain in all the large joints, which were tender and swollen. The time of the first appearance of purpuric spots had not been noted. When admitted, patient was in a very weak condition. There were many purpuric spots scattered all over the body and extremities. The largest patch—larger than the size of the palm of a man's hand—was situated on the abdominal wall just below the umbilicus. There were small patches, ranging from the size of a pin's head to that of a florin, everywhere else on the body, including the ears. He complained of headache, vomiting, and pains in his limbs; the wrists and ankle-joints were tender and swollen. The temperature was 96.4° ; urine, specific gravity 1017, free from albumen. He had difficulty in breathing, and there were evidences of bronchitis; but, on account of the great weakness of the patient, a thorough physical examination was impossible.

The treatment adopted was stimulating and supporting, but the weakness progressed, and patient died seven days after admission. The temperature remained subnormal until the day before death, when it rose in the evening to 100.8° .

Necropsy, twenty-eight hours after Death.—Some specks of hæmorrhage are visible on the point and alæ of the nose, on the lips, chin, and ears. On the lobes of the ears there are also several hard crusts. The gums are white, bloodless, and somewhat retracted. A patch of blue discolouration, the size of the palm, exists just below the umbilicus. There are numerous extravasations all over the body, as noted during life, and when these are cut into they have the appearance of coagulated blood extravasated into the subcutaneous cellular tissue. The muscles are unusually dark and red; the fat all over the body is normal in amount. In the thorax, the under surface of the pericardium is very dark, and over the left side it is almost black, but there is no sign of extravasation there. The lungs are somewhat collapsed and present old adhesions on both sides; there are a few dark spots of discolouration on both costal pleuræ at apex. There are marks of extravasation on the surface of the lungs; on cutting into them there are signs of chronic bronchitis; but the lung tissue is everywhere crepitant. In the abdomen, the spleen is small, shrunken, and bloodless; the liver is somewhat cirrhotic and fatty, and in the left lobe there are two pale yellowish patches extending about a quarter of an inch into its substance; there are no extravasations on the surface or internally. In the right kidney, at the upper part is a cyst about the size of a walnut, filled with bloody grumous fluid; the capsules are somewhat adherent, and the surfaces of both organs granular, and the cortical portions pale. Several coils of the small intestine are of a very dark colour, have a sticky feel, and have two or three small pale ash-coloured spots on their surface. On cutting into the intestines they are found to be filled with pulsatous fluid; the walls gradually become deeper in colour from above downwards. Half-way down the jejunum the tissue becomes so soft as to be lacerated in removal; at this point the whole inner coat of the intestine has sloughed, and the valvulæ conniventes have disappeared to the extent of about eighteen inches. Lower down, though much congested, the bowel seemed more natural. Towards the end of the ileum another patch showing the same sloughy condition is found. The contents of the intestines do not present a fecal appearance until the lower end of the colon is reached. The blood everywhere throughout the body is uncoagulated, but its tarry character is very marked. Weights of viscera—heart, $11\frac{1}{4}$ oz.; lungs, 37 oz.; spleen, $1\frac{1}{2}$ oz.; liver, $51\frac{1}{2}$ oz.; kidneys, $11\frac{1}{2}$ oz.

ST. MARY'S HOSPITAL.

CASE OF EXCISION OF THE WRIST FOLLOWING COMPOUND DISLOCATION.

(Under the care of Mr. WALTER PYE.)

C. K., forty, a labourer, was admitted into St. Mary's Hospital, February 4, 1879, with a compound dislocation of the left wrist-joint, caused by his falling down the well of a lift, his whole weight coming on his outstretched hand.

On examination, the radius and ulna, with the semilunar

and pisiform bones, were found to be projecting to the extent of about two inches through a transverse rent in the skin over the front of the joint. This rent embraced the ends of the bones tightly. The radial artery was felt uninjured; the ulnar could not be felt.

Under chloroform the wound was enlarged by a longitudinal incision, and the joint examined. It was then found that the bones of the carpus were almost all of them broken, many in several pieces; but that the metacarpus was uninjured. The tendons of the radial flexor of the carpus and the long flexor of the thumb were torn across, but the other tendons had been merely displaced by the dislocated radius.

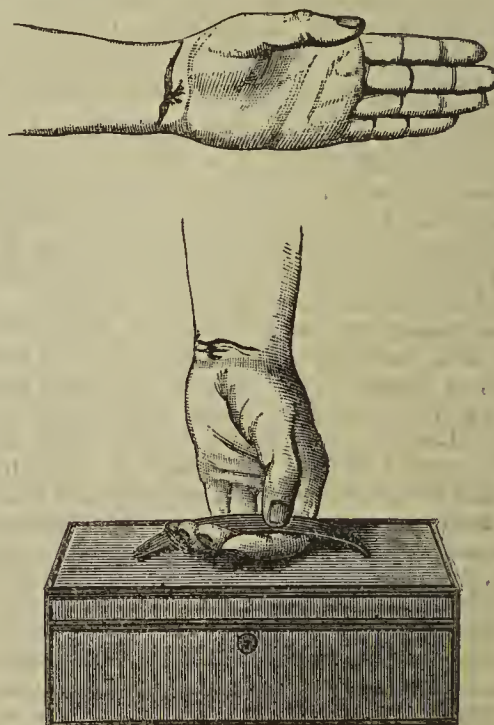
It was resolved to attempt to save the hand, and accordingly the radius and ulna were sawn through about an inch from their articular ends. Then the carpal bones were removed piecemeal until only the trapezium and the distal half of the os magnum, which appeared to be uninjured, remained. The radius and ulna were then put into position, and the wound closed by a few points of suture. A small drainage-tube was inserted, and the wound was dressed on the antiseptic method, the carbolic spray having been used throughout. There was very little bleeding, only two vessels requiring a ligature. The arm and hand were placed on an anterior interrupted splint.

On the following day the temperature was normal, and the wound had healed by first intention (so far as the skin was concerned), except where the drainage-tube was inserted; this was removed, and the wound dressed as before.

From this time the wound healed up straightway without discharge enough being formed to render it necessary to change the dressings more than once a week. A superficial abscess, apparently the result of a bruise, and unconnected with the wound, was opened about a fortnight after the accident; and the wound was soundly healed between three and four weeks after admission.

He was discharged March 17, still wearing a splint, which was frequently removed for the purpose of passive and active movements of the wrist and fingers, the latter being at that time very limited.

He has been seen frequently since in the out-patient room of the hospital, and has steadily regained power of movement of the fingers and at the wrist. He is able to carry his milk-pails about in his rounds, and has altogether a very useful hand. Pronation and supination are both limited to a greater extent than flexion and extension. The accompanying woodcuts show the present condition of the hand and arm.



Remarks.—Accidents requiring primary excision of the wrist-joint do not appear to be very common, but when they do occur they may reasonably be expected to do well. The main point of interest in the case reported was the extreme rapidity with which the wound healed, and the parts consolidated without suppuration or constitutional disturbance worth consideration; it will have been noticed that antiseptic dressings were used throughout.

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THE MEDICAL TIMES AND GAZETTE is published on Friday morning: Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.

Medical Times and Gazette.

SATURDAY, NOVEMBER 22, 1879.

THE first of Mr. Nowell's seven actions against various persons concerned in confining him as a lunatic has at last been brought to a close, with the result which usually awaits such litigation. The jury, in the face of a considerable number of witnesses—some of them medical—and the impassioned harangues of the Solicitor-General, pronounced that Mr. Nowell at the time of his first detention was a dangerous lunatic, and consequently exculpated his brother-in-law, Mr. Williams, for having taken the steps necessary to put him under restraint. From a medical point of view, the case was of a very ordinary character. It was not one of moral insanity, or emotional insanity, or impulsive insanity. It was not *manie raisonnée* or *manie sans délire*. The man was afflicted with the very common delusions that he was followed and watched by spies and persecutors, and that his wife was unfaithful to him. And not only did he hold these opinions in theory, but he carried them into action. He accused strangers of following him, and carried a loaded revolver to defend himself against his imaginary enemies. And, in addition to this, he kept a diary, and wrote down his delusions again and again to confirm everything that was said of him by others. Yet, in the face of all this, he was advised deliberately by eminent counsel to bring seven actions on the ground that he never was insane at all. The first has just been concluded with all the protracted and sensational verbosity that now marks our courts of law. Such a cause thirty years ago would have occupied one or two days, but now counsel take two days to make a speech which formerly would have taken two hours; the judge follows suit, and the whole seems to be done with a view to the gallery and the penny papers. The bare facts of the case we have given above, but the counsel for the plaintiff strove to divert the attention of the jury from these facts by importing into the case various incidental

The Committee of the House of Commons, which in 1877 listened for many weeks to every conceivable objection which could be brought against the Lunacy Laws, issued a report, to which Lord Coleridge alluded. In it the Committee specially noticed the question of certificates, and commenced their observations by speaking of "the universally conceded importance of the speediest possible treatment of the first symptoms of derangement. Any impediment to the rapid conveyance of a patient to an asylum might in some instances render the case hopeless. In Scotland, what is called an emergency certificate, signed by one medical man, is found to work well, and evidence was given that the speedy treatment secured in this way is so efficacious, that in many cases no further certificate is required, as the patient is discharged before the expiration of the three days during which it is valid. . . . In all other cases the certificate should be granted by two independent medical men. That there even then will be a risk till lunacy is more generally studied, is shown by a remarkable case in the evidence before the Committee." The importance of early treatment is universally conceded. Yet Lord Coleridge objects to one medical man going in to see the patient as the other comes out. How long time would he wish to elapse before the second examination is made? Lawyers are never in a hurry. Their proceedings are marked by delay, and they cannot understand the need for haste, however urgent the case. Not only do patients who are acutely maniacal, or acutely melancholic, require speedy certification to place them in a position of safety; there are others, not so obviously insane, for whose preservation it is just as necessary. There is the patient who is squandering his money, and may in a few hours enter into contracts or sign bonds which may involve great loss or costly litigation. There is the man going about with a pistol in his pocket full of delusions and suspicions, who may look on the visit of the first doctor as a part of the plot against him, and decamp before another can examine him unless it is done at once; and there are the restless and wandering patients who never remain long in one place. The Committee speak of a study of lunacy being necessary. The Solicitor-General was of opinion that such study is an absolute disqualification—perverts and warps the judgment—and that the jury were much better able to decide the question of a man's sanity or insanity than any lunacy doctors. As medical men in general are more likely to be of the opinion of the Committee than of the Solicitor-General, it will happen that those who have under their care patients suffering from symptoms of insanity will consult upon such cases with lunacy experts. Now it is objected that, if two doctors meet and consult on a case, and then after separate inter-

views sign certificates, these are not separate and independent opinions. But from whom is the second medical man to derive his information if not from the one already conversant with the case, as in every other medical or surgical case? Is he to go to the friends? But they have an interest in confining the alleged lunatic, it is said, so their information is tainted. The jury recommended that the two certificates shall not be on the same piece of paper, as if the second medical man could not as easily read what the first had written on another piece of paper as on the same! Information must be sought whence it can be obtained. If it is properly weighed and sifted, if it is presumably *bonâfide*, and if it is borne out by the symptoms observable in the patient, no blame can attach to the medical man. He must see the patient separately from any other practitioner; but we think that no Legislature will ever enact that a specified time shall elapse between two such visits. It is to be observed that throughout this trial great stress was laid on the fact that the plaintiff was a *dangerous* lunatic. We must remember, however, that no mention whatever is made in the Lunacy Acts of *dangerous* patients. Medical men certify that a patient "is a person of unsound mind, and a proper person to be taken charge of and detained under care and treatment." All lunatics, whether dangerous or not, are entitled to the protection of these statutes; and it is the duty of the profession to advise the restraint of those who, even if not dangerous, require care and treatment to restore them to sanity.

TYPHOID OR ENTERIC FEVER.

THERE cannot be the slightest question of the value of the address made by Sir William Jenner to the Midland Medical Society, of which we published a brief abstract last week, and which has been laid before the medical world more nearly *in extenso* by a contemporary. Looking over this address, which, as published, appears to deal exclusively with the treatment of typhoid, one is often driven to the exclamation—"Just my idea! but very much better expressed." To some this may seem faint, to others the very highest praise; for it is not given to everyone to be a "prophet" or "fore-speaker," who can in himself embody and enounce the experience of many men and multitudes of cases. We should be glad to deal with Sir William Jenner's address just as it has appeared in the *Lancet*—there is in it abundance of material for thought and consideration; but there appeared in a daily contemporary a kind of abstract, perhaps imaginative, which was so full of errors, that in the interest of our readers we may be pardoned for reverting a moment to the history and etiology of this disease. And this is no mere question of antiquarian medicine; it lies at the bottom of everything which can be said and done to ward off the most prominent scourge of our own times—putting cholera and small-pox on one side. These we occasionally see in the epidemic form, but typhoid we have always with us, and at the present moment its prevalence in certain parts of London, at least, seems to be on the increase.

We are tolerably well agreed that such diseases as syphilis and small-pox never nowadays originate *de novo*. We are agreed that certain other communicable maladies may do so—pyæmia and erysipelas, for instance. To which group does typhoid belong? The history of typhoid, as indicated by the experience of many men of very various talents, is in this respect well worth studying. In the account of Sir William Jenner's address published in the daily paper, but not in the authorised copy published by the *Lancet*, there is a slight sketch of the history of this terrible malady. There it was said that Goodsir, in Edinburgh, was the first to note certain specific alterations in the bowel in certain

cases where death was said to have resulted from "fever." For in those days there was but one "fever," strange though it may sound to modern ears; and we well remember the dictum of one of the shrewdest physicians we ever encountered: "I believe with Andral that fever is one and the same." With this portion of the history of typhoid we are not personally familiar. But next came the work of Dr. A. P. Stewart—still hale and hearty among us, though killed by the daily paper. This was done in Glasgow, and completed in Paris. It had long been apparent that French and English physicians had been playing at "cross purposes"; their descriptions of fever we could not accept, and ours were quite as unintelligible to them. There came at last a glimmering of light. It seemed probable that they were speaking of a disease in many respects similar to, but far from identical with, that—namely, typhus—whose acquaintance was in many parts too closely thrust upon us.

It was to the solution of this problem that Sir William Jenner, then attached to the London Fever Hospital, devoted himself with the utmost assiduity, and in the end with complete success. He took for his basis, first the pathological signs, next the clinical symptoms, not so that the one study should follow the other, but, so to speak, in combination. He showed, in a series of lectures probably unparalleled for novelty, clearness, and convincing power, published in these columns, that there was a fourteen-day fever characterised by no particular lesion beyond certain spots on the body, highly contagious and infectious, with various other specific tendencies to which we need not here refer. But he also showed that there was another fever which did not end on the fifteenth day, which sometimes, but not invariably, was characterised by spots different from those in the former, and was almost invariably accompanied by certain lesions in the small intestine, limited mainly to the lymphatic glands (agminate and solitary), producing sloughing and sometimes fatal hæmorrhage, or the still more fatal perforation and peritonitis. Such, looking at it broadly, was Sir William Jenner's work; and a more noble contribution to medical science could not well be conceived.

All this time the treatment of the malady had been studied, but until a disease is clearly recognised it is useless to speak of treatment. Careful inquiry, stimulated by the unfortunate death of the Prince Consort through this fatal malady, turned men's minds to an inquiry as to the mode of its origin and propagation; and out of this stage, we are sorry to say, we have not yet emerged. The late Dr. Murchison was a keen and accurate inquirer into the phenomena of the origin of the disease. He came to the conclusion that filth—especially human filth—was at the bottom of its causation; but that usually, if not invariably, there was a period during which this filth must undergo change, and develop gases before any dangerous effluvia could be produced. For by this time it was considered fairly a matter for acceptance that the poison might be introduced into the system in more than one way, but specially might it be so by impure drinking-water and foul gases.

This, then, is the position maintained by some: that typhoid may be generated *de novo* by sewage impregnation, particulate or gaseous, of drinking-water, or by the direct inhalation of noxious vapours originating from decomposing sewage. It is a result of this theory that every case of typhoid has now to be traced to a certain source; and if any chance communication between a water-supply and a soil-pipe can be discovered, that is looked upon as being quite sufficient to account for the whole mischief. This is probably the dominant belief at the present date. It does not greatly matter though people do not drink much

water; very little will do. If none is drunk, the air of the water-closet will suffice; for, after all, we must have a theory.

Without for a single moment deprecating the vast importance of such investigations, they often to us seem to fall short of their mark: for witness two sets of cases.

The first of these is recorded in an elaborate monograph from the skilful pen of the late Dr. Budd, of Bristol, whose experience of an outbreak of typhoid in a village (North Tawton) of North Devon first set men looking in other directions for the origin of this disease. A village and district under no new and abnormal circumstances suddenly became a hot-bed of fever. The only incident prior to the outbreak was the return of a young person known to have been suffering from the disease; and its spread to other regions ripe for its reception could clearly be traced by the migration of those who had thus been in a position to become infected, or had been so absolutely. Here, then, was a clear history of personal transmission of the disease. But what has ever seemed to us the crowning inquiry was that made by Dr. Edward Ballard (who had already distinguished himself in this direction in Islington) in another district of the West of England. Here the inhabitants had long been accustomed to drink of a filthily polluted stream of water, but there was no fever. A typhoid patient returned to his native village, and the typhoid discharges were so deposited as to find their way into the stream. Typhoid followed, but only in those instances where drinking-water was taken from *below*, and not until a new source of infection had arisen from a point *above* this spot.

These facts tend to show that the typhoid contagium is specific. Between the two views we may well exercise a suspension of judgment, trusting that time will render clear what is now doubtful; but the practical outcome is to take every precaution suggested by either view.

It is, however, agreed on all sides that the contagium, if not wholly, is at least mainly concentrated in the typhoid stools, and it is of the utmost importance that we should determine whether this contagium is discharged fully ripe for infection, or if it requires a period of maturation outside the body. We should have hardly supposed the question required discussion had it not been for a pamphlet from the pen of Dr. Collie, of Homerton Fever Hospital, and a most competent authority on the subject. He seems to hold, in this paper—partly founded on the observations of a French physician of Dinan—that typhoid is directly transmissible from the sick to the healthy. As already said, we should hardly have thought such discussion necessary, but the mere fact of such a paper coming from such a source tells us that all are not of one mind.

We have had long experience of the treatment of typhoid in the wards of a general hospital, and it has been the rarest incident to know it to spread when due precautions have been taken. In each instance a basin of Condy-and-water is placed at the bedside, and the instruction is absolute that everyone touching the patient shall by this means have their hands disinfected. Every discharge is to be received in a vessel containing carbolic acid and water, every article of dress and bedding is to be treated in the same way, and both promptly removed from the ward. The end of such precautions is obvious: they are founded on the view that typhoid discharges are directly and immediately contagious, but that with due care all risk may be avoided.

To say that typhoid may not be propagated by means of sewage and its gaseous emanations would be absurd. What we contend for is that typhoid contagion should be dealt with at its source. But we fear we have already said too much, and that the most interesting part of Sir William Jenner's address must be dealt with on another occasion.

THE STORY OF A NEW REMEDY.

A FEW weeks ago there appeared in the *Wiener Medizinische Presse*, No. 37, a "preliminary note" on the use of inhalations of benzoate of sodium in phthisis. The writer, Dr. Krocak, announced that in Professor P. von Rokitansky's clinic at Innsbruck, of which he is the assistant-physician, most wonderful results had been obtained from them even in most advanced cases; in fact, three such were described, in which patients with large cavities, high fever, and in a state bordering on the moribund, were discharged in a month or two as "cured," with great gain of weight, and disappearance of the physical signs of cavities. The solution of benzoate used was one of 5 per cent. strength, but no details as to the mode of administering the inhalation, or as to the daily period of using it, were supplied. A few days later, private inquiries, and, later still, a letter from Dr. Krocak himself to an eager patient, elicited the information that the solution was to be inhaled as spray pulverised by a Seigle's apparatus, for an hour morning and evening. At the same time the patient was to have plenty of fresh air, good meat (one effect of the benzoate being to greatly increase the appetite), and freedom from all depressing influences. The news of the wonderful discovery at Innsbruck spread far and wide in Vienna, and the demand for benzoate of sodium and Seigle's pulverisers soon exceeded the supply. The drug has now been largely tried not only in the General and other Vienna hospitals, but also by family doctors among the sadly numerous class of consumptives in that city, and the *Wiener Medizinische Wochenschrift*, from whose pages much of our present information is derived (see Nos. 39, 40, 41, 43, 44, 1879), affirms as the outcome of all this *furore* that all these experiments "have failed to yield the slightest favourable result, or a trace of even the most trifling diminution of dangerous symptoms." (The italics are those of the paper we quote from.) On the other hand, public opinion in the Austrian medical world has become greatly excited against Professor Rokitansky, first, because he has given his silent support to what it considers the inaccurate statements of his assistant, and secondly, because it regards him as playing the part of a charlatan by taking advantage of the credulity of the lay public, and making capital out of what the doctors consider very like a swindle. This feeling of indignation has led Professor Albert, of Innsbruck, a colleague of Rokitansky, to challenge him to a public demonstration of his cases before the medical profession of that town, and has even extracted a cry of "*amoveatur*," or "Let him be removed from his chair," from the editor of the *Wiener Medizinische Wochenschrift*.

Nevertheless, in spite of this outcry, there is reason for believing that inhalations of benzoate of sodium may arrest septic processes (and there is no doubt that the later stages of phthisis are accompanied with, or dependent on, septic processes) in the lungs. Dr. Schüller, of Greifswald (*Archiv für Exper. Pathologie*, Band xi., Heft 1, 2) has recently shown that if rabbits are rendered tuberculous by making them imbibe, through a tracheotomy-wound, caseous or scrofulous matter, or the bacteria which Klebs has obtained by cultivating infusions of such matter, the diseased process can be arrested by making the animals inhale either the benzoate solution or creasote water for a lengthened period. If two rabbits of the same age and weight are treated, the one with inoculation alone, the other with inoculation *plus* inhalation, the latter rapidly gains weight and recovers its health, the former falls away and dies. Moreover, Dr. Schüller, in a modest letter published in the *Wiener Med. Woch.*, No. 40, referring to these researches and to their application to the treatment of human phthisis, declares "that we have also in Greifswald been able to convince

ourselves repeatedly of the extraordinarily good results of the use of the drug in men."

Lastly, there is no question that benzoate of sodium has antiseptic properties, probably dependent on its "antibacterial" influence. We can refer our readers to some notes on the internal use of the drug in diseases supposed to be in some way due to bacteria in Vol. I. of this year's Journal (page 596). For the above reasons we prefer to suspend our judgment in this matter, and wait for a more unprejudiced investigation of the reliability of Krocak, Rokitansky, and Schüller's statements.

THE WEEK.

TOPICS OF THE DAY.

THE Medical Defence Association last week summoned Dr. David Johnson, a duly registered practitioner residing at South Kensington, for making a false statement concerning the death of a child five years old, and giving a false certificate of the death. The proceedings were taken under the Births and Deaths Registration Act of 1874, and were authorised by the Registrar-General. The evidence showed that the child was attacked with fever, and was attended by an unqualified person, by name Carnley Smith, who resided at The Terrace, Kensington, in a house on the door of which was a brass plate bearing the words "Dr. Johnson's Surgery." Smith had already been fined £10 at the same Court for falsely pretending to be a qualified practitioner in a certificate of vaccination. He was called in by the mother in the present instance, and attended the child until its death, when Dr. Johnson called and saw the body, and ultimately gave the certificate. It was sought to be shown that Smith was only acting as Dr. Johnson's assistant, and that though at present unqualified he intended to go up for examination in January next. The magistrate said that undoubtedly there had been an infringement of the Act of Parliament, and this seemed exactly one of the occurrences it was intended to prevent. The object of the Act was to establish *prima facie* evidence of the cause of every death on the certificate of only a qualified medical practitioner, who had seen and attended the deceased during life. Whatever the motive, the certificate given in this case was clearly illegal, but as there had never been any previous complaint against the defendant, and it was possible he might have acted to a certain extent in ignorance of the law, he would not inflict the full penalty of £10 in each case, but fine him £5 and £5 5s. costs on the first summons, and 1s. and 2s. costs on the second.

The outbreak of typhoid fever in the Chester County Lunatic Asylum has proved more serious than was at first anticipated, upwards of twenty persons having been attacked, including the medical officers, the chaplain and his wife, the latter of whom has died from the disease. The chaplain and his three servants are still very ill, and four of the male patients are suffering from the fever in a very severe form. The system of drainage at the Asylum has been examined by a Government engineer, and condemned as altogether faulty and untrustworthy. On opening some of the drains it was found that they were entirely choked up. The drainage system was only completed in July last, having been remodelled at a very great cost. The sewage is distributed over an arable field with a slope towards a meadow. This meadow, several acres in extent, in the shape of a basin, is intersected with gutters having communication with a brook. The basin is described as simply a sewage swamp, the effluvium from which is overpowering. An entirely new drainage system is in contemplation, and, in the meantime,

the sewers of the Asylum are being daily flushed from the mains.

A recent inquest held before Mr. W. T. Manning at the Board-room of the Westminster Union, upon the body of a man, aged fifty-six, who died from starvation, exhibits a shocking and most inhuman system of shirking responsibility on the part of those institutions appointed by the authorities to look after the interests of the sick and suffering poor. The deceased, who was found in a dying state in Cranbourn-street, was taken by a constable to the Cleveland street Infirmary, which is a Poor-law asylum for the sick and destitute, subject to the regulations of the Local Government Board, but although it was pointed out that he was dying, he was refused admittance. He was then taken by the constable to the Middlesex Hospital, where he was examined, and a stimulant administered, but as the rules of that institution did not admit of his reception, the House-Surgeon gave the constable a certificate for the man's admission to the Westminster Union, where he died shortly afterwards. The evidence adduced was of the usual character: that the man had no order for admission, that application must be made in the morning, etc.; and Dr. Rogers, the Medical Officer for the Westminster Union, informed the jury that the Strand Union made no provision for the sick poor in their parish—hence it was that cases of destitution were dragged through the streets from one parish to another until one was found to admit them. The jury returned the following verdict:—"That John Dudley Chapman died from starvation, accelerated by the neglect of the authorities of the Strand Union, and the gross mismanagement on the part of the officials of the Cleveland-street Infirmary and Asylum." The jury might with advantage have recommended that their verdict should be communicated by the coroner to the Local Government Board.

After a trial extending over fifteen days, the jury in the case of *Nowell v. Williams* have returned a verdict for the defendant, thus expressing their opinion that Mr. Williams was justified in placing his brother-in-law (Dr. Nowell) under restraint. The jury appended two resolutions as a rider to their verdict: first, they recommend, with reference to lunacy certificates, that each doctor be required to sign the certificate on a separate paper, and not, as at present, on the same paper; and secondly, they expressed an opinion that the mode in which the inquiries as to the certificates are conducted on the part of the medical men is very reprehensible, and that the law in this matter requires alteration.

A large and influential meeting of the medical profession of Sheffield was recently held in the Council Chamber of the town under the presidency of the Mayor. The object was to take into consideration the possible contamination of the water-supply of Sheffield by sewage, since the reservoirs of the local water company at Crookes Dams were now being surrounded by houses; and as the town extended principally westward, it followed that the dams, which when first constructed stood in an entirely uninhabited spot, would before long be situated somewhere about the centre of the town. The Medical Officer of Health for the borough, Dr. Hime, had made a full report on the subject, calling the attention of the Town Council to the apprehended danger. Several resolutions bearing on the subject were agreed to unanimously; but doubts were expressed by several of the speakers as to whether the Local Government Board, if appealed to, had any power to interfere in the matter. It was nevertheless stated by the Chairman that if the Corporation had no legal power to act, they had the moral power, which must have very great force; and unquestionably such an influential and united meeting of the Sheffield medical profession must succeed in fixing public attention on such an important subject.

The medals awarded and recommended by the Council of the Royal Society for the present year are to be distributed as follows:—The Copley Medal to Professor Rudolph J. E. Clausius, of Bonn, for his well known researches on heat; the Davy Medal to Mr. P. E. Lecocq de Boisbandran, for his discovery of gallium; a Royal Medal to Mr. William Henry Perkin, F.R.S., for his synthetical and other researches in organic chemistry; and a Royal Medal to Professor Andrew Crombie Ramsay, F.R.S., for his long-continued and successful labours in geology and physical geography. These medals are to be presented at the anniversary meeting of the Society on December 1 next, when Mr. W. Spottiswoode will deliver his first annual address as President.

At a meeting of the Metropolitan School Board, held last week, Mr. Heller brought up the report of the Special Committee on playgrounds, which proposed—"1. That it is desirable to throw open, under proper supervision, not only to children in Board schools, but also to other children of not more than thirteen years of age attending a public elementary school, such playgrounds of Board schools as may be approved by the Board. 2. That the school-keeper be held responsible for the supervision of the playgrounds during the extra hours, with such assistance as may be required. 3. That if any extra expenditure be entailed, contributions be invited from voluntary sources. 4. That in the event of the above recommendations being approved, the Works Committee be instructed to select the schools, and to prepare the necessary regulations to be exhibited in the playgrounds." Mr. Stiff opposed the proposition of the Committee under the first head, and moved the previous question. Mr. L. Stanley seconded. Mr. Collins thought that the playgrounds should be thrown open to the whole of London as open spaces. After some discussion the previous question was carried.

The death is announced of Dr. Chenu, formerly at the head of the Army Medical Staff of France, and the author of a treatise on the Mortality of the French Troops in the Crimea, whither he accompanied the expedition. He was seventy-one years of age.

THE ARMY MEDICAL WARRANT.

UP to the time of our going to press, the Army Medical Warrant had not yet struggled into the light of day. Another week's delay in the full publication of the terms on which candidates may be expected to enter the Army Medical Service will deter many who, under less dubious circumstances, would be willing and ready to come forward. From what we know of the feeling among our junior members on the subject, it is not at all unlikely that, even with full information before November 29—the day on which the lists for the admission of candidates are to close—the time will be too short for the doubtful and hesitating to make up their minds. One feature in the lately published Schedule, which had escaped notice, is the omission of the clause rendering it necessary for candidates to declare that they are not married. Whether the withdrawal of this restriction will attract many Benedicts remains to be seen.

THE REGISTRAR-GENERAL'S RETURN FOR ENGLAND: AUTUMN QUARTER, 1879.

ALTHOUGH a retrospect of the present year, from a meteorological point of view, is anything but satisfactory, it is nevertheless certain that it will be a standard year for comparison, on account of its low death-rate. We have now before us the Quarterly Return of the Registrar-General of England for the period ending September 30 last, in which it is recorded that low temperature and frequent and abundant rain were the characteristic meteorological features of

the third or summer quarter of 1879, as they had been its first six months. These conditions, which, judged by mortality statistics, are detrimental to the public health during winter and spring, invariably exercise a favourable effect upon it when existing during summer. The mean temperature during the quarter was 58.1° , or 1.5° below the average for the corresponding period in 100 years. During these three months no less than 11.7 inches of rain were measured on fifty-three days of the quarter; whilst the average in the corresponding period of sixty-one years was but 7.4 inches. The last summer was not so cold as that of 1860, but the rainfall was considerably in excess. During the period under notice the death-rate was as low as 16.4 per 1000 of the estimated population of England and Wales, which was no less than 3.8 below the average rate in the corresponding summer quarters of the ten years 1869-78. In fact, the death-rate last quarter was the lowest on record since 1837, when civil registration was established, the nearest approach to it being 17.2 per 1000 in the cold and wet summer quarter of the year 1860. In the forty-one years 1838-78 the death-rate in the third quarter of the year averaged 20.5 per 1000. In the principal urban population of England and Wales the death-rate of this quarter was equal to 17.5 per 1000, whereas in the remaining, or rural population, it did not exceed 14.7. In equal numbers living, the deaths in the urban districts last quarter were in the proportion of 119 to 100 in the rural districts; in the summer quarters of 1877 and 1878 this proportion of urban to rural mortality was equal to 122 and 134 to 100. The large relative decrease of urban mortality was due to the small fatality of infantile summer diarrhoea, which is essentially an urban disease; the rate of infant mortality, indeed, measured by the proportion of deaths under one year to births, did not exceed 115 per 1000, whereas the average rate in the nine preceding corresponding quarters was equal to 177 per 1000. From these statistics it will therefore be seen that we are called upon to pay a somewhat heavy penalty for bright skies and warm sun, and in their absence we should comfort ourselves with appropriate reflections as to our superior sanitary condition.

CORNEAL TRANSPLANTATION.

ELSEWHERE we publish a short account of a case of corneal transplantation by Dr. Wolfe, of Glasgow. The subject is one of extreme interest and of much practical difficulty as well as of importance. This, we believe, is only the second successful case on record. At all events, the possibility of making such an operation a success constitutes a distinct and important advance in practical ophthalmic surgery.

PHILLIPS v. THE LONDON AND SOUTH-WESTERN RAILWAY COMPANY.

IT will be recollected by our readers that in April last Dr. Phillips, of Grosvenor-square, obtained £7000 damages from the London and South-Western Railway Company for injuries sustained in a collision on that railway in December, 1877. A new trial was sought and granted to the plaintiff, on the ground that the amount of damages received was inadequate. The second trial has resulted again in favour of the plaintiff, whose case was that he had been in the enjoyment of a practice amounting in the three years preceding the accident to about £6000 a year, the professional expenses being about £1200, and that, as the result of the accident, he had sustained such injury to the spinal cord as precluded the hope of his ever again being able to practise his profession. Lord Coleridge, who conducted the second trial, in summing up, told the special jury that the many recent cases left the matter much where it was before—viz., that compensation was to be what the jury thought fair. With regard to the contention of the defendants in this case as to the omission

of certain large single payments in striking the average of the annual income, he saw no reason why the same persons or others equally rich and grateful might not have been among the plaintiff's future patients, supposing the accident had not happened. The jury gave a verdict for the plaintiff for £16,000. The defendants requested an extension of the time during which application may be made for a new trial. This Lord Coleridge granted, but he at the same time gave a very strong hint that he coincided with the finding of the jury.

ANTISEPTIC SURGERY.

THE discussion on the above subject, proposed to be held at St. Thomas's Hospital in connexion with the South London District of the Metropolitan Counties Branch of the British Medical Association, has been postponed to Wednesday, December 3, at 8 p.m.

DIALYSED IRON.

ACCORDING to a communication of M. Personne to the Paris Academy of Medicine (*Gazette Médicale*, August 23, 1879), the so-called "dialysed" iron is an oxide of iron, which is distinguished from the ordinary oxides by its almost absolute insolubility in the strongest mineral acids—such as the sulphuric and hydrochloric,—also by its insolubility in organic acids and in the gastric juice. When animals in full digestive activity are fed with "dialysed" iron it is always found in a precipitated state either mixed with their food or adherent to their stomach-walls, and never in solution. It is also impure, and contains 7 per cent. of perchloride, and 1 per cent. of sulphate, of iron. Lastly, it is not really dialysable, and does not pass through Graham's dialyser. To sum up, it is, according to Personne, neither pure, soluble in the fluids of the digestive tract, nor assimilable; and in the discussion which followed the paper, Berthelot, the great chemist, confirmed Personne's view. On the other hand, Professor Hardy pointed out that the therapeutic action of a drug does not always correspond to its chemical properties, and that often very small doses, when actually absorbed, may favourably affect the organism. It would be well for medicine if this subject were further examined. Our own personal experience of dialysed iron as "Fer Bravais" is small, but we have not had as good results from it as either from the officinal perchloride or ammonio-citrate of iron. We have noticed what seems a peculiar circumstance, and one which tends to confirm Personne's opinion of the indifferent chemical nature of "dialysed" iron—namely, that it does not blacken the motions. This observation was confirmed, on our mentioning it to him, by one of the leading authorities on materia medica and therapeutics in London. Seeing that, whether iron is absorbed or not, if it is soluble it becomes excreted as a sulphide by the bowels (Hamburger and others), it follows that the dialysed iron must pass out of the system as iron rapidly does, in some form which is incapable of conversion into a sulphide—that is, in an insoluble form. It would be interesting to know what the experience of the British medical profession is as to the therapeutic value of "dialysed" iron. A lady under our care, who had always derived great benefit from the officinal tinctura ferri perchloridi in small doses, was ordered Squire's syrupus ferri dialysati this summer by an eminent London physician. She informs us that she took it for five weeks without the least benefit, whereas the old form of iron at once did her good when she returned to it. On the other hand, we have known a youth of seventeen declare that "Fer Bravais" did him good "as soon as he had taken it." We mention this to show that little reliance can be laid on such testimony as his. Remembering that "dialysed" iron contains

7 per cent. of perchloride as an impurity, it would not be so very surprising to us if some of the wonderful hæmopoietic properties of the drug were found to be derived from the latter.

ROYAL COLLEGE OF SURGEONS.

AT the ordinary meeting of the Council of the Royal College of Surgeons of England, held on Thursday last week, Messrs. Hancock, Marshall, Birkett, Savory, and Holmes were appointed members of the committee to consider and report on Mr. Hancock's motion for the institution of further examinations for the diplomas of Member and Fellow, carried on the 16th ult. (see *Medical Times and Gazette*, October 25, page 482). Messrs. Humphry, Marshall, and Savory were re-elected members of the Committee on Examinations in Anatomy and Physiology. Mr. Holmes' motion, seconded by Mr. Simon, to refer to the Committee on Examinations the question of altering the curriculum with regard to Physiology, in accordance with the alterations recently made in the primary examinations, was carried unanimously. Mr. Gay gave notice of a motion for the alteration of the by-laws relating to the election of Examiners in Anatomy and Physiology, with the view of making Members of the College, as well as Fellows, eligible to those examinations.

THE SANITARY CONDITION OF THE PARISH OF ST. MARY, ISLINGTON: 1878.

DR. CHARLES MEYMOTT TIDY, in his capacity as Medical Officer of Health to the parish of St. Mary, Islington, has recently issued his annual report on the sanitary condition of his district for the year 1878. He commences by stating that one effect of the great commercial depression of the past year has been to produce the lowest marriage-rate recorded in the parish since 1842 and 1843: in these years the rate was 14.7 and 15.2 per 1000 respectively; in the present year it is returned as 15.3 per 1000. London, Dr. Tidy remarks, suffers in this respect as all other places suffer, but not in so marked a degree as the towns in Durham and Northumberland, and other mining counties, where the marriage-rate has decreased to a really alarming extent. The birth-rate for Islington in 1878 was 35.1 per 1000, against 36.3 in 1876, and 35.6 in 1877. The deaths registered in the parish during the year under notice numbered 5158, equal to a rate of 19.1 per 1000. Nearly one-fourth of the deaths recorded in the parish are tabulated by the Registrar-General as zymotic: this is a larger percentage than has been recorded since 1871. Small-pox was fatal to 66 persons, and in the whole of London 1416 cases of death from this cause were registered in 1878, against only 17 in nineteen country towns. Partial isolation, it is evident, Dr. Tidy adds, is not very successful, for 897 of these 1416 cases died in small-pox hospitals; more, he imagines, is required in the direction of complete isolation. In conclusion, Dr. Tidy quotes the opinion of the Registrar-General that 17 deaths per 1000 is an ideal death-rate, whilst 20 per 1000 is about the extent of perfection we can hope to reach; and he congratulates the authorities upon having reached the latter estimate during the past year in the parish under his supervision.

THE OPERATION OF TRANSFUSION.

ABOUT three years ago Professor Schäfer was appointed by the Obstetrical Society to make experiments with a view to determine what fluids may be used with benefit for transfusion, and the best way of performing the operation. Mr. Schäfer has presented his report, and it will be read and discussed at the next meeting of the Society, on December 3.

THE METROPOLITAN ASYLUMS BOARD.

ON Saturday last, at the usual meeting of the Metropolitan Asylums Board, it was reported that the wards of both the Small-pox Asylums of Homerton and Stockwell are now being used for fever, as well as the fever wards—the small-pox wards serving to isolate the typhoid from the scarlet fever cases. During the previous fortnight 14 fresh scarlet fever cases had been admitted to the Stockwell Fever Asylum, and 9 enteric cases into the small-pox side; 10 deaths had occurred, and 58 patients had been discharged, leaving 194 cases under treatment. At Homerton, 66 scarlet fever cases were admitted during the fortnight, and 9 enteric cases; 16 deaths had occurred, and 44 patients had been discharged, leaving 228 cases under treatment. The only two asylums in which small-pox is being treated are the Fulham and Deptford. In the first-named 5 cases had been admitted during the previous fortnight, and 7 discharged, leaving 7 still under treatment, and 233 beds available. At Deptford there had been 22 fresh cases admitted, and 8 discharged, leaving 35 still under treatment, with 528 beds available. In the previous fortnight 14 cases were admitted to the two asylums, as against 27 during the fortnight under notice.

PHLEGMONOUS GASTRITIS.

FOUR cases of this rare disease—a description of which is to be found in “Niemeyer’s Text-book of Practical Medicine,” and in a more detailed form in “Ziemssen’s Cyclopædia,” in an article by professor Leube—are published in the *Berliner Klin. Wochenschrift*, No. 38, 1879, by Dr. Glax, of Graz, and Dr. Lewandowsky, of Berlin. There were autopsies in only two of the cases, so that the accuracy of the diagnosis must remain doubtful in the other two, especially as one of them recovered. All the patients were males, aged seventeen, forty-six, fifty, and fifty-two years respectively. The chief symptoms in each case were sudden severe vomiting and pain in the abdomen, with great prostration. Only in the case which recovered was pus vomited; in the others bile-stained fluid was brought up. One case began with a severe rigor, and in this the temperature rose, during the seven days the patient lived, to 40·4° Cent. (104·7° Fahr.), with a pulse of 136, and respirations 36. In the case that recovered, the temperature for eight days ranged between 39° and 41° Cent. (102·2 to 105·8° Fahr.), with a very rapid pulse, and the whole course of the illness, which lasted a month, much resembled typhoid fever. In one case there was delirium, in another great restlessness, with a feeling of suffocation. In one of Dr. Glax’s patients there was considerable enlargement of the liver and spleen, and he also had general peritonitis, with a good deal of inflammatory effusion into the abdominal cavity. The stomach in this case was the seat of diffuse purulent infiltration of its walls. In the second case that was examined post-mortem the infiltration was much less marked, and was partly purulent, partly serous. Its anterior and posterior surfaces were of a dark violet colour; and small punctate hæmorrhages were scattered here and there over the mucous membrane. In two of the four cases the diseased condition may have been due to errors of diet (one patient had eaten large quantities of unripe grapes); in the third the patient was a hard drinker; in the fourth no assignable cause could be discovered for the fatal illness, and Dr. Lewandowsky, the family doctor, to whom the patient had been known for years, could remember no previous attack of any kind which might have been the starting point of the final catastrophe. We have called phlegmonous inflammation of the stomach a rare disease. In 1876, indeed, Leube had only been able to collect thirty-one reported cases of it, including examples of the diffuse and the circumscribed forms. Dr. Lewandowsky thinks the

total number of cases described up to 1879 but slightly exceeds forty. No doubt, however, it has not always been recognised. The diagnostic points which separate it from gastritis, gastro-enteritis, and circumscribed peritonitis, are, according to Deininger (*Deutsches Archiv für Klin. Med.*, Band xxiii.), three in number. First, the fever and general symptoms are much more severe than in these diseases; secondly, the pain is not aggravated by the patient’s movements; thirdly, the gastric region offers a feeling of very much increased resistance. The diffuse form runs a more rapidly fatal course than the circumscribed form (gastric abscess); the latter may drag on for months, and kill the patient at last by exhaustion and slow fever. The treatment is at present, we need scarcely add, utterly unsatisfactory. Dr. Glax agrees with Deininger that the early use of cold gives the most rational chance of success in this direction.

MR. LUTHER HOLDEN.

WE learn that a proposal is on foot to present Mr. Luther Holden with a testimonial in recognition of his long and valuable services to the profession and to St. Bartholomew’s Hospital and its Medical School. The present opportunity has been embraced, as Mr. Holden is this year President of the Royal College of Surgeons and Senior Surgeon to St. Bartholomew’s Hospital. Dr. Robert Martin is treasurer of the fund, and Mr. Langton and Mr. Marsh are the honorary secretaries. Subscriptions, which are limited to three guineas, may be sent to any of these gentlemen, addressed to St. Bartholomew’s Hospital.

DR. ANDREW DUNCAN, F.R.C.S.—In his description of the battle of Char-Asiab, the *Times*’ correspondent states that “the only officer who received a serious wound was Dr. Duncan, who had a narrow escape of his life.” A private letter from the field-surgeon says that this gallant young member of our profession was struck by an Enfield bullet over the region of the liver; extent of injury not clear. Another officer slightly wounded was Lieutenant Charles Fergusson, the youngest son of the late Sir William Fergusson.

ROYAL COLLEGE OF SURGEONS.—The following Fellows of the College are candidates for the office of Examiner in Anatomy and Physiology for the ensuing year, viz., for Anatomy, Messrs. Edward Bellamy, Henry Morris, and William Thomas; for Physiology, Messrs. B. T. Lowne and Gerald F. Yeo. The first meeting of the Committee on Examinations in Anatomy and Physiology will be held at the College on Monday next, when perhaps other gentlemen will be nominated. The half-yearly primary examination for the fellowship of this institution will be commenced this day (Friday).

DOINGS OF THE METROPOLITAN BOARD OF WORKS.—At the last week’s meeting of the Metropolitan Board of Works, amongst other business brought forward, the Works Committee reported that they were unable to advise the formation of a people’s park in the neighbourhood of Kilburn, owing to the unreasonably high prices demanded for the property; also, that they did not consider it desirable to make any application to Parliament for vesting in the Greenwich District Board the legal control of the open space in the centre of the Broadway, Deptford. The Works Committee further recommended that the Vestry of Islington should be informed of the course which the Board had decided to take with reference to the main drainage system—to carry off all the flood-waters of the metropolis by increasing the capacity of the main sewers into the Thames above London-bridge, at a cost of £750,000. This was approved. The same Committee reported, in respect to a recent letter from the Home Office as to the prevalence of typhus fever in the Great Wild-street area, that the St. Giles’s District Board was taking all the necessary steps in the matter. It was also decided not to proceed with the Wells-street, Poplar, scheme under the Artisans’ and Labourers’ Dwellings Improvement Act.

QUERIES IN MEDICAL ETHICS.

SIR,—In August, 1849, some "Queries in Medical Ethics," which had been read by me at the Medico-Chirurgical Society of Aberdeen, were published in the *Medical Gazette*. My material was not then exhausted, and having since still further accumulated, I lately read those I now send you to the same Society, by whom they were received with approval. By inserting them as a continuation of my former contribution to the *Medical Gazette*, you will oblige

Yours, &c., WM. FRASER, M.R.C.S.E.

31, Union-terrace, Aberdeen, October, 1879.

Q. What are the proper rules to be observed with respect to the etiquette of titles in the medical profession?

A. The first and most obvious rule here is that no man should use, either in reference to himself or to others, any other title than that to which they can legally lay claim. For instance, one who is not in possession of the doctorate should not apply it to his name either verbally or in writing. Such an assumption, besides being in general an indication (and viewed as such by the profession and by people of intelligence) of ignorance, vanity, and cupidity, if not of actual dishonesty, would have the effect of invalidating any official transaction or document, and thus of bringing discomfiture and loss on the person who is guilty of it.^(a) But although a medical man should not, *sua sponte*, either directly or indirectly sanction or encourage the application of "doctor" to his name unless he have diplomatic authority to that effect, yet in those parts of the country and among those classes of society where this title is a sort of generic or general appellation given to members of the profession, it would be impossible, without the greatest affectation, to avoid the designation, and good taste, rather than otherwise, will frequently be displayed by giving way to the current of social usage, both in accepting the title and in according it to others in the same position as himself. Whether agreeable to them or not to be designated by a term to which, in its proper sense, they are not legally entitled, "there is," as Dr. Johnson says in reference to the case of Dr. Memis, one of the physicians to the Aberdeen Infirmary about a hundred years ago, who, strangely enough, raised an action, before the Court of Sessions, against the managers of that institution, for styling him in an official document "Doctor of Medicine," instead of "Physician,"—"there is," says Johnson, "no help for the professors of physic, who all share with this unhappy gentleman the ignominious appellation, and of whom the very boys in the street are not afraid to say, *There goes the Doctor!*" ("Boswell's Life of Johnson," page 277). The title of "esquire," which is by courtesy generally applied to the members of the higher branches of the legal, medical, and other learned professions, does not on this ground by law strictly belong to them, and consequently it should not at least be self-assumed, though in other respects the practice that prevails in society should unquestionably be acceded to. However many titles, whether professional, scientific, literary, honorary, or other, a medical man may possess (and of course the more select and numerous these are the more credit will accrue to their possessor), he will show his good sense by displaying them only in places and on occasions when some advantageous or useful purpose is to be served; and on his door-plate and card of address, if he attach to his name anything beyond the ordinary "Mr." of polite society, it should not be more than one single title, that, namely, which designates the department to which he mainly devotes himself—"Professor," for instance, if he hold that office, and apply himself exclusively to its duties; "Dr.," if he lay himself out as a practising physician; and "Surgeon," if he aim chiefly at a surgical practice. Although

(a) "An Act to Regulate the Qualifications of Practitioners in Medicine and Surgery." August 2, 1858. Section 40. "Any person who shall wilfully and falsely pretend to be or take or use the name or title of a physician, doctor of medicine, licentiate in medicine and surgery, bachelor of medicine, surgeon, general practitioner, or apothecary, or any name, title, addition, or description implying that he is registered under this Act, or that he is recognised by law as a physician, or surgeon, or licentiate in medicine and surgery, or a practitioner in medicine, or an apothecary, shall, upon a summary conviction for any such offence, pay a sum not exceeding twenty pounds."

the number and comparative value of the titles and official appointments to which a medical man can lay claim will form an important element in the estimation and rank in which he will be held by his professional brethren, and even by the public, they will not, independently of other circumstances, entitle him to assume precedence over his brother practitioners in their joint treatment of patients, or in their professional or public intercourse with each other. This point will rather be determined by the age, the experience, the local and the professional character and standing of the respective practitioners, as well as, to some extent, by the circumstances of the individual case, and the previous estimation in which either or both of the gentlemen may have been held by the family or patient requiring their attendance.

Q. What is the authority necessary to justify a medical man in taking charge of a case, or in giving an opinion or advice to a patient?

A. In the first place, the patient's own application to that effect, made either personally, by letter, or by verbal message to the practitioner at his house or elsewhere; secondly, a similar application on behalf of the patient by his relative, guardian, master, patron, or other person or legal authority having an undoubted right to interfere; thirdly, the occurrence of an accident or sudden emergency, where the immediate help of a practitioner who may happen to be at hand can be of any essential service, would not only justify, but imperatively demand, on the ground of common humanity, the proffer of his prompt and disinterested assistance in the case, whether it were formally asked for or not. As a general rule, however, the medical man should carefully avoid obtruding his advice or services where they are not unequivocally solicited either by the patient himself or by those having, from relationship or otherwise, such an interest in his case as to warrant their interference. Nothing but spontaneous confidence on the part of the patient or friends can afford the practitioner such a knowledge or command of a case as to justify his intermeddling with it. His doing so without warrant, though from the most humane and unselfish motives, and with the acquiescence or even apparent wish of the patient, might be the means of doing the latter the most serious injury, by preventing him from having recourse in time to the necessary assistance, and it would in all probability lead only to annoyance and loss of credit on the part of the practitioner himself. A strict adherence to this salutary rule may sometimes give an appearance of stiffness, hauteur, and want of benevolence to the conduct of the medical man, but a conviction of the honesty and actual humanity of such a course should strengthen him in firmly adhering to it?

Q. In a surgical operation in which two or more medical men are concerned, where does the credit or the responsibility of the result rest?

A. It is customary and proper, before the performance of any serious surgical operation, that the patient and his friends should express not only their acquiescence in it, but also their entire resignation as to the issue; so that the very fact of an operation under these circumstances being decided on actually amounts to an absolution of the surgeon from all penal or moral responsibility as to the result, provided always, of course, that the procedure do not conduce to some illegal object, and that no culpable unskilfulness be committed in the course of it. If the case belong to the person who has the direction, and performs the chief part of the operation, and who has had the free choice of his assistants in it, the entire credit or responsibility, in as far as these may with propriety be attributed to anyone, ought to be considered as his. In the event, in private practice, of any such malpraxis being committed as might entitle the patient or his friends to legal redress, these, it is presumed, could have their recourse only against the principal operator, as it was to him that the case was entrusted, and that without their interference as to the choice of his assistants or of the measures necessary to be used; and it is a recognised maxim in law that "*qui facit per alium, facit per se.*" On such an occurrence happening in a hospital or other similar public establishment the institution itself would, I suppose, be the legally responsible party. In the case of a sudden emergency or accident requiring the immediate employment of surgical means, the credit or responsibility will be shared, to a greater or less extent, by all the medical men who happen to be at hand, and who give their aid, whether by consultation or by manual operation in the case.

Q. To what extent of confidence or secrecy is the medical man bound with respect to his patients?

A. He is evidently in honour bound to preserve such a degree of prudent and habitual reserve in regard to his patients, their illnesses, and their circumstances generally, as common courtesy and good taste would naturally point out as imperative on one to whom these had become known through the confidence of professional and friendly intercourse. It is sometimes alleged as an unamiable and objectionable characteristic of medical men, that they are too secretive and reserved; but I believe that this tendency, though brought perhaps under more general notice, is not carried to a greater extent in the medical than in other professions that necessarily become the depositories of secrets, and cognisant of facts, with which the comfort, character, prospects, and prosperity of individuals or of families are intimately connected. The medical man is thus bound in honour, and as a necessary and understood, though unexpressed, condition of that relation which is entered into between patient and physician, to maintain to the world a perfect ignorance of all that he professionally may become acquainted with. And, as a matter of principle, he should even in regard to trifling and ordinary circumstances, and the common routine of his practice, exercise an habitual control over the expression of his mind. His bosom should be like the Dead Sea, which receives everything that is offered to it, but gives up nothing again. Even as respects his own wife and family, no exception should be made to this rule—a course to which he will find much less difficulty in adhering than one would suppose, provided he make it, not an occasional, but a uniform and sacred principle of his conduct. Though he may thus be occasionally brought under the suspicion of not feeling an adequate interest in the cases of his patients, a little further reflection on the subject will in general be sufficient to place his conduct and motives in their true light. Dr. Andrew Combe having, on some occasion, been subjected to this imputation in reference to a patient, thus exculpated himself in a letter addressed to the lady who misunderstood him—"I avoid speaking of notes, letters, the health or affairs of friends, even perhaps when I ought to do so, just for fear of either getting into the habit or saying too much. And I am habitually accused at home of not mentioning ordinary occurrences, which people speak of to my inmates as if they knew all about them from me, and then they express wonder: "Did not the doctor tell you so-and-so?" I abstain from such communications upon principle, both because I see and hear many things which ought not to be reported; and there are also many which, although of themselves indifferent, I do not repeat, just because mentioning them would leave it *doubtful* how much farther I had gone. It was but two days ago a very amiable friend and patient, Miss —, made this very remark, "that of all the things, serious or indifferent, which in the course of a very long illness, and much conversation on all the subjects she had told me, not one had come back to her as from me, although she was surrounded by our common friends; and she could not help remarking the fact, and the utility of it in obtaining confidence." The indulgence of a habit of promiscuous gossiping, or of over-familiar intercourse with patients, which young practitioners, and those residing in country districts, too frequently fall into, is obviously incompatible with the maintenance of that feeling of reliance on the honour and discretion of their medical attendant, which every patient must desire to cherish; and while it eventually damages the prospects and success of the person addicted to it, tends—which is of more consequence—to inflict an injury on the general character and influence of the profession itself. It should be the aim of the medical man to secure such a character for fidelity and prudence; and it would be fortunate both for the public and the profession if this standard were more generally attained, as that his patients should trust him with everything essential for him to know, as unreservedly and confidently as the penitent unbosoms himself—*sub sigillo silentii*—to his father confessor. And, as in the instance referred to, it might easily be shown that he is morally under permanent obligation not only not to voluntarily divulge anything that might compromise his patient, but even, if questioned upon it, to have, beyond the precincts of the sick-chamber, no recollection or knowledge of the subject.

(To be continued.)

FROM ABROAD.

THE PARIS HOSPITAL MORTALITY RETURNS.

IN his Report on the Prevalent Diseases of the Third Quarter of 1879 (*Union Méd.*, October 30, November 4 and 8), Dr. Ernest Besnier observes that the mean temperature for this period was lower by one degree than the mean of the corresponding period for 1806-70, and the rain which fell measured 159 millimetres in place of the 147—the mean of the same months for the period 1804-72. During this period the mean mortality notably surpassed the corresponding mean of the seven preceding years, the increase being distributed over the various affections without being attributable to any one of them in particular. The affections especially noted in the Report are diphtheria, small-pox, and typhoid fever.

1. *Diphtheria*.—The mortality in entire Paris from this disease has followed the rule of its seasonary course, according to which it has undergone its normal seasonary diminution. Thus, while the deaths from this cause in the first quarter of 1879 were 529, they were 468 in the second quarter, and 407 in the third quarter. This law for summer decrease is also verified in the hospitals, in spite of the large mortality recorded in these. The mortality for the first quarter was 181; for the second, 171; and for the third, 173. The number of cases, however, was greater in the summer quarter (294) than in the preceding quarter (236), the respective percentages of mortality being 72 and 59; so that the conditions of the *diffusion* of an epidemic are not absolutely identical with those of its *gravity*. M. Labric, at the Hopital des Enfants Malades, had 20 cases of croup, 16 of which were operated upon, with 12 deaths and 4 recoveries, and 4 were not operated upon, with 2 deaths and 2 recoveries. Of diphtheritic angina without croup there were 32 cases, with 13 recoveries and 14 deaths, 4 having been removed uncured, and 1 being still under treatment. At the Sainte Eugénie, M. Cadet de Gassicourt had 83 cases of diphtheria—58 in July, and 25 in August. Of these 83 cases there were 36 anginas without croup, of which 22 recovered; and 47 anginas with croup. Of these 41 were operated upon, with 5 recoveries; and 6 were not operated upon, with 2 recoveries. In many cases the operations were only performed when the general condition left but slight hope of recovery. Glandular enlargements were very frequent, presenting an exaggerated development, and in five instances they terminated in suppuration and required the bistoury.

2. *Variola*.—Variola, as well as the other eruptive fevers, underwent in this quarter its proper seasonary attenuation, the operation of this being manifest, although occurring immediately after an epidemic exacerbation. The number of deaths which took place from variola in entire Paris was 151 for the first quarter of 1879, 265 for the second, and 158 for the third quarter. In the hospitals the cases admitted have also been fewer during this quarter, but they have been more grave. Thus M. Brouardel, of La Pitié, only admitted 29 cases during the quarter, but of the 29 there died 9. Since the commencement of October the admissions have been much more frequent. At the Hopital Tenon, M. Rendu states that he admitted 43 cases, all the subjects of which had been vaccinated, but none revaccinated, and most of whom were young persons (from fifteen to twenty years, 18 cases; from twenty to twenty-five, 8 cases; from twenty-five to thirty, 7 cases; from thirty to sixty, 7 cases; and above forty, 3 cases). Almost all the cases were mild, being more or less confluent varioloid, but without complications; of the 43 cases, only 4 proved fatal. At the separate service for small-pox at the Laennec, M. Legroux admitted only 85 cases (54 males and 31 females) during this quarter, while during the preceding quarter there were 121 cases. Of these 85 cases, 13 proved fatal, *i.e.*, 15.31 per cent. as compared with 16.52 per cent. of the second quarter, and 10 per cent. of the first. As to the forms of the disease, 32 were examples of varioloid, 24 of discrete variola (all of which recovered), 19 of "coherent" variola (3 proving fatal), 7 of confluent variola (all of which died), and 3 of hæmorrhagic variola (all of which proved fatal). All but one patient had been vaccinated, and he

recovered from a "coherent" variola. In M. Rigal's service at the St. Antoine, all the cases of primary confluent variola died at the latest by the seventh day; but the cases of "coherent" confluent variola (i.e., those which only became confluent secondarily owing to the large dimensions of the pustules) either recovered or did not prove fatal until from the sixth to the twelfth or thirteenth day.

3. *Typhoid Fever*.—This, having attained its lowest point of descent in the second or spring quarter, resumed in the summer quarter, according to rule, its ascensional course. The total of the deaths in Paris was 81 in July, 94 in August, 117 in September, and 292 in the entire quarter. The cases in the hospitals exhibited the same course, at least as far as the insufficient diagnosis allowed this to be judged of, Dr. Besnier complaining that several of his colleagues do not distinguish sufficiently between what they designate as "continued" fever and typhoid fever.

DIFFICULT LABOUR FROM DISTENSION OF FETAL BLADDER.

Prof. Comelli relates in the *Wiener Med. Woch.*, September 13, the following case which occurred at the Obstetrical Clinic of Trieste:—A woman, aged thirty-six, pregnant for the second time, was admitted January 23, suffering somewhat from dyspnoea in consequence of the enormous size which the abdomen had attained. On an internal examination being made, it was found that although no signs of commencing labour were present, the wall of the cervix was thinned, the vaginal portion dilated, and the os open. Such a condition is common enough in women who have borne several children soon after each other, but is of extreme rarity in a woman pregnant only for the second time, and still wanting three weeks of her full time. It was, however, afterwards accounted for in this case by the fact of the uterus having become so greatly distended by hydramnios; and such distension having taken place during the earlier months of pregnancy at the expense of the fundus and body of the uterus, these parts did not admit of further thinning, so that the remaining enlargement of the uterus took place at its lower segment. But what excited the greatest attention in this case was the enormous size of the abdomen. A superficial examination showed that this arose from the great quantity of the amniotic fluid.

The labour came on January 24. The first pains lasted sixteen hours before the child's head had entered the pelvis in the second position, and on examination the uterus was found enormously distended. The height of the uterus lying in the region of the stomach was 56 centimetres, and the distance from the umbilicus to the symphysis was 30 centimetres. The circumference of the abdomen measured 115 centimetres, or about 20 centimetres more than usual—although the woman had not reached her full time by three weeks. The second period lasted fourteen hours—a very long one for a multipara; the delay being attributable to the great distension preventing due energy of contraction. On the membranes being artificially ruptured, about four litres of the liquor amnii were discharged, and the head passed down in the normal manner, followed by the shoulders, to the outlet of the pelvis; but here neither strong pains nor the woman's efforts sufficed for the expulsion of the child. On examination it was found that the delay arose from the vagina being entirely occupied and enormously distended by the abdomen of the child. After repeated and violent traction the living child was at last extracted, a partial rupture of the perineum taking place during the procedure. The abdomen of the child was of an extraordinary size, and measured 48 centimetres in circumference, being about 14 centimetres more than usual. The child was premature, but well developed, the immense distension of the abdomen being the only remarkable feature. At the umbilicus was an aperture 3 centimetres in diameter, through which two portions of intestine issued from the abdomen. The umbilical vein separated from the arteries, and the peristaltic contractions of the intestine, were plainly visible. A few minutes after its birth, the child commenced passing water from an opening beneath the urethra. The urine was not discharged in a full stream, but continued to trickle away during six hours, the distension of the abdomen diminishing at the same time; so that seven hours after delivery the bladder was completely empty, and the walls of the abdomen were relaxed and wrinkled. The child,

although premature, seemed viable, and ten hours after its birth took the breast. It refused it on the second day, and died after forty-six hours' life. At the autopsy, great hypertrophy of the bladder with dilatation of the ureters was found. The urethra was so narrow that it could be laid open only with the smallest scissors, the canal terminating in the aperture beneath the glans penis.

REVIEWS.

Revue d'Hygiène et de Police Sanitaire. Nos. 1 to 6. Paris: G. Masson.

THERE is a general idea in this country that the French know nothing and care nothing about hygiene and sanitary reforms—an idea which takes its origin in the primitive arrangements so generally met with by travellers abroad. So far as the mass of the people is concerned, there can be little doubt that the accusation is only too true, but it can no longer be sustained against the scientific section of the nation. In the scientific world of France there is a large and influential body of men who are working strenuously to improve the existing state of things, to remove unhealthy conditions wherever they may be found, and to substitute for them arrangements which shall rigorously meet the demands made by sanitary science. The French *savants* were among the first to take steps for the foundation of the International Congress of Hygiene, which has now become an established institution, its last very successful meeting having been held at Paris last year. At the same time they organised a "Société de Médecine Publique et d'Hygiène," which meets once a month for the discussion of papers bearing on the subjects indicated in its title. The *Review* to which we wish to call attention was founded in the early part of the present year, to act as the organ for this Society. The editorial staff, which is headed by M. Vallin, the Professor of Hygiene at the Val-de-Grâce, includes several well known names, amongst others those of MM. Bouley, Durand-Claye, Proust, and Wurtz. The programme of the *Review* comprises original papers on all subjects bearing upon hygiene, correspondence from abroad, and a full report of the meetings of the Société de Médecine Publique. Amongst the papers which have appeared in the first six numbers of the journal is a full account of the earth closet system, by Dr. Vallin, with several papers on different aspects of lead-poisoning, and papers on the prophylaxis of contagious diseases. The *Review* is ably edited, and will supply a distinct want not only in France, but in our own country. We wish it every success.

Neurological Contributions. By WM. A. HAMMOND, M.D., assisted by WM. J. MORTON, M.D. Vol. I., Part I. New York: G. P. Putnam's Sons. 1879.

THIS volume is the first of a series which Dr. Hammond purposes bringing out in quarterly instalments. Each number is to contain original memoirs by Dr. Hammond; reports of interesting cases occurring in private practice; reports of the clinic for diseases of the nervous system in the University of New York, prepared by Dr. Morton; and short notices of the more important publications relating to the nervous system. The first number opens well with three papers, all of which are of considerable interest—the first on non-asylum treatment of the insane, which Dr. Hammond strongly advocates; the second on three cases of arrested development in one family; and the third on a form of insanity which Dr. Hammond proposes to term "mysophobia," and in which the leading characteristic is an overpowering fear of defilement. The paper on arrested development is one of very remarkable interest, for there appears to be little doubt that, as Dr. Hammond has pointed out, all three cases were well-marked instances of sporadic cretinism, and, so far as we are aware, this is the first instance on record of the occurrence of several cases of cretinism in one family.

The records of practice include many cases of much interest—amongst others a case of insanity traceable to malarial influences, several well-marked instances of syphilitic nervous diseases, and an account of a remarkable case of deception in a hysterical patient. We have only to add that no pains or expense have been spared in the printing, and that we shall look forward to the production of much useful material in the ensuing numbers.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

November 10.

LIVERPOOL WATER-SUPPLY—PROVIDENT DISPENSARIES.

At last it is probable that Liverpool may, at no very distant date, obtain a copious supply of good water. After many meetings on the subject by the Water Committee; after the consideration and rejection of many schemes, such as that of obtaining a supply from Haweswater, from Bala Lake, from Windermere in conjunction with Manchester, from the red sandstone of the district, etc.; and after obtaining opinions from the most skilful water engineers in the kingdom,—a report was at length submitted by the Committee, and agreed upon by the majority of the Council, recommending the adoption of what is known as the Vyrnwy scheme. The scheme seemed to have very much to recommend it. The gathering-ground is very extensive; a natural reservoir or lake for impounding is almost ready to hand; the industries that will be affected are trivial; the distance from Liverpool is not very great; the water is on the whole extremely pure; and that portion of it which, by reason of being tinged by peat during flood, might not be generally acceptable, can be used as compensation-water. Notwithstanding the obvious advantages of the scheme, and the absolute necessity of an increased supply for the town before many years shall have passed, a very strong opposition was raised against it, which issued in an appeal, under the Borough Funds Act, from the decision of a responsible and representative committee and council, who *had* well considered the subject for several years apart from passion or prejudice, to the ratepayers and owners of property generally who *had not*, and whose passions and prejudices it was attempted to excite by representations concerning the magnitude of the cost and the needlessness of incurring it. Happily the appeal was without effect, the voting issuing in a majority of about 2000 in favour of the scheme. The subject has yet to be submitted to Parliament, when a good deal of opposition from towns which will be more or less affected by its adoption will probably have to be encountered. Ultimately, however, it will no doubt be adopted. Within the past few years, owing in great measure to the saving effected by prevention of waste, we have been able to enjoy a constant service. Again and again we were told, however, by those responsible for the supply, that, with our present rate of increase of population, this constant service could not be maintained for more than four years, and that, without some additional source of supply, an intermittent system, such as had prevailed for many years, would of necessity have again to be adopted; and as it was believed by many who had well considered the subject that much of the improved health of the town had resulted from that constant service, so it was feared that a certain consequence of interrupting this would be a great increase of disease, more especially as during the last few years there has been a very great extension of the water-closet system among us. With the Vyrnwy water all our fears of a water famine will pass away, and we shall look for a still greater improvement in the public health than we have yet attained.

The question of provident dispensaries has on several occasions been discussed by the Medical Institution of this town, and during the session 1877-78 a committee appointed for the purpose, after collecting a large amount of evidence showing the evils and great extent of indiscriminate medical charity, drew up a report strongly approving of the principle of such dispensaries. This report having been subsequently adopted by the general body of members, representations in accordance with its suggestions were made to the governing bodies of some of the local medical charities, pointing out the magnitude of the evil and praying for their co-operation in the endeavour to bring about a reform. Nothing, however, was done, and in the meantime the evil grew. Institutions, called provident dispensaries, but which were provident in nothing but the name, sprang up under various auspices and in various parts of the town. Most of these were private adventures of young and pushing medical men, and the principle of charging a very low fixed sum for visits and medicine during the time of sickness, and not of requiring weekly payment in health as a provision against the time of sickness, underlay them all.

A proposition was at length submitted to the Medical Institution, that it should go further than merely express its approval of the principle of provident dispensaries, by stating the basis on which such institutions should be established, and the general rules, according to which they should be conducted, so as to make them acceptable to the medical profession and useful to the public. A sub-committee was appointed to draw up a report in accordance with this proposition, which, after discussion, had been passed. Several meetings were held, and a report agreed upon, which set forth the kind of management, the scale of charges, the social status of members, and so on, of such provident dispensaries as the Medical Institution would think it advantageous to the town to see established. These general rules were all obtained from the reports of institutions of a provident character that had been in successful operation for varying lengths of time in other towns. Unfortunately the sub-committee were not unanimous in some of their recommendations; a lengthy discussion ensued on the report, which was presented on the 23rd ult., and ultimately the proposition to adopt it was rejected. This result will again postpone any concerted and powerful action against the gross abuses of medical charity which, as the evidence submitted to the first Committee proved, so largely exist in this town.

GENERAL CORRESPONDENCE.

A DECLARATION.

[To the Editor of the Medical Times and Gazette.]

SIR,—The prizes which will be offered by the new Warrant to competitors for the Medical Department will be worth trying for; but it strikes me that it will be a matter of some difficulty to get competitors. Look at the fearful Declaration to be made by intending candidates. Only four clauses—but such clauses!

No. 1 says: "I declare upon honour that both my parents are of unmixed European blood!" How is my friend Jones to find this out? Where did he get that nose of his? Is there any justice in the satire which prompts us playfully to call him Moses? Is it true that his great-grandmother was a Jewess? If she was, can he call his blood "unmixed European"? As for my friend Smith, I give him up. His mother was saved by "transfusion," and the person who gave the blood was a quadroon. Poor old Smith! Robinson had an Indian wet-nurse. If the food he obtained formed his blood, and the milk was Asiatic, how can Smith say his blood is unmixed? I think a lot of people must hesitate before they claim the perfectly blue blood of Europe. If the Red Indians of America came originally from Northern Europe, are Red Indians now eligible; and if not, when did their eligibility cease? This is important, because one would like to know if the inhabitants of Canada and the United States are pure European or not. Altogether I think No. 1 is enough to drive all but Germans out of the medical market. Their genealogy is above suspicion!

No. 2 of the Declaration is very plain indeed. The candidate is to declare upon honour not only that he is not suffering from any mental or bodily disease, but that he has no hereditary tendency to any! Oh my poor friend Smith, with your father's aunt in a private retreat! Alas for my companion Brown, whose grandmother had an epileptic fit! Woe for you, poor Robinson, whose mother's sister died at Madeira!

No. 3 only pledges the candidate to tell all he picks up in the nursery about the hereditary diseases of his father and mother, for he will scarcely like to ask his parents to furnish the particulars.

No. 4 merely requires the candidate to acknowledge that he is so hard up that he cannot get other employment, and so is willing to be an Army doctor!

As I said before, when the Warrant comes out many may find it is well worth while to apply for a vacancy, but what is the use of such a senseless "Declaration" as a preparatory step?

I am, &c.,

A LAWYER'S CLERK.

DR. ROBERT ELLIOTT HUNTLEY, M.R.C.S. Eng., has been elected Mayor of Jarrow-on-Tyne.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 11.

JOHN E. ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

MR. GAY showed two specimens of Stricture of the Rectum removed during life.

CASE OF CHOLECYSTOTOMY PERFORMED FOR DROPSY OF THE GALL-BLADDER, DUE TO IMPACTION OF A GALL-STONE.

MR. LAWSON TAIT reported this case, and referred to the success attending ovariectomy as leading to the adoption of abdominal section for other pelvic and abdominal tumours likely to affect seriously the life of the patient, unless of a cancerous nature. Dr. Handfield Jones had the merit of first suggesting the extension of it particularly to cases of threatened death from gall-stone impaction. Dr. Marion Sims was the first to follow out the plan, but unsuccessfully, and the present case was the first successful one. The patient had been married eighteen years, had borne six children, and menstruation was normal and health good till the summer of 1878. At that time she had spasmodic pains in the right side, aggravated by walking and lifting any light weight. A swelling noticed in September slowly increased, and during last winter pain became more intense and she presented a cachectic appearance, suffering from incessant headache, sickness, and obstinate constipation. The seat of pain was over the right kidney, where there was a heart-shaped tumour, firm and elastic, without fluctuation, tender to the touch, and movable to each side. The urine gave only negative results. At a consultation with the author's colleague, Dr. Edginton, no decided diagnosis was attempted, and the opening of the abdomen was agreed upon, which was performed on August 23, in the middle line to the extent of four inches. The tumour was found to be a distended gall-bladder containing a white starchy-looking fluid, and two large gall-stones, one lying loose, and the other impacted in the entrance of the duct and adherent to the mucous surface. The latter was removed after a tedious and very difficult operation (fully described in the paper). The stone and fragments weighed 6.11 grammes. The wound in the gall-bladder was stitched up to the upper end of the wound in the abdominal walls by continuous sutures, leaving the aperture into the bladder quite open, and closing the rest of the abdominal opening in the usual way. The operation was performed antiseptically under ether. The patient rallied completely in a few hours, and the dressings of the wound were found stained with healthy bile. The flow of bile from the wound continued till September 3. The wound was completely healed on September 9, when the patient began to take solid food, up to that time the diet having been restricted to milk and beef-tea. On the 30th she went home quite restored to health. A temperature-chart indicated the evenness and rapidity of the recovery. An entire absence of symptoms of gall-stone rendered an accurate diagnosis impossible, but this was of less importance as late improvements in abdominal surgery made an early exploratory incision for ascertaining the true nature of the disease feasible. The author, in stating that he always used rigid antiseptic precautions in his abdominal sections, expressed some doubts as to his success being attributable in any way to them.

DR. COUPLAND believed that impaction of gall-stones in the entrance of the gall-duct did not always give rise to symptoms. He asked whether surgical interference would be possible in cases of an acute kind. If so, much relief might be gained and life saved; but there would probably be a difficulty in operating on cases where the gall-bladder was not distended.

MR. HULKE congratulated Mr. Tait on the result of his operation; and, while giving due credit to Dr. Handfield Jones for suggesting operative measures in such cases, pointed out that Petit in 1743 had recommended a similar proceeding. The fact that the obstruction was in the cystic duct rendered Mr. Tait's case favourable for operation, because in such conditions the gall-bladder became a mere mucous cyst.

MR. KNOWSLEY THORNTON asked Mr. Tait for an explanation of his views regarding the value of the antiseptic method in abdominal surgery. It seemed to be a very general opinion that exploration of the abdomen was justified if antiseptic precautions were followed.

MR. HENRY MORRIS agreed with the remark that much success was attributed to the antiseptic treatment. But some time ago a case was reported in which cholecystotomy had been performed successfully without the use of antiseptics. He asked whether there was much hæmorrhage, and whether there had been much dragging on the gall-bladder when attached to the abdominal wall.

MR. SPENCER WELLS said that he was consulted some years ago with regard to the case of a patient who had several stones in the gall-bladder. It was decided not to operate, as there was cancer in the liver. He would have made the opening by means of *potassa fusa*, in order to obtain adhesion of the peritoneal lining; and would still be inclined to operate in this way rather than by incision. He asked how long the discharge of bile continued in Mr. Tait's case.

MR. A. BARKER doubted whether jaundice was an invariable effect of impaction of a calculus in the neck of the gall-bladder. He believed that the late Dr. Murchison taught that it was not. He had brought a case before the Pathological Society in which a gall-stone had ulcerated into the intestine, and in which there was no history of jaundice.

MR. TAIT did not know whether jaundice was to be regarded as always a symptom of impacted gall-stone. His impression was that gall-stones were formed in the gall-bladder, and not in the liver. He thanked Mr. Hulke for calling attention to Petit's proposal, of which he had not been aware. He did not find much difficulty from hæmorrhage in making incisions in the median line; and there was no trouble from traction in his case. The discharge of bile ceased when antiseptic dressing was discontinued and the wound allowed to heal. Although he followed out Mr. Lister's practice rigidly, he did not think that there was anything more than a general impression as to his views on the subject. Mr. Knowsley Thornton had said lately that he had never lost a case of uncomplicated ovariectomy since he had used antiseptics; but the only fatal case which he (Mr. Tait) had had was one in which strict antiseptic measures (with thymol) had been carried out. In his private practice he had not had greater success with than without antiseptics. In his hospital practice he at first operated under very unsanitary conditions, and a number of cases were fatal. Subsequently, his operations had been performed in a house provided for the purpose in the country; and the amount of success in his ovariectomy cases had since resembled that of Mr. Spencer Wells and Dr. Keith. The improvement, however, was not so great as to be placed to the credit of antiseptics rather than to increased experience and improved skill in operating; but if the idea that antiseptics lessened mortality after operation was supported by facts, he would willingly accept it.

A SECOND SUCCESSFUL CASE OF GASTROTOMY IN EXTRA-UTERINE PREGNANCY.

MR. LAWSON TAIT also contributed this paper. He said that this second case of gastrotomy in extra-uterine pregnancy was intended particularly to emphasise the propriety of operating by median abdominal section, and the necessity of leaving the placenta untouched; both lessons having been taught also in a third case previously referred to, in which the section was vaginal and the placenta had been removed—which facts had undoubtedly been the cause of a fatal issue. The patient in this case was a worn-down, anæmic married woman, aged thirty, seen for the first time on March 1 last. Married three years, she had had no children, and her menstrual periods had been perfectly regular till September, 1878, when they ceased, the abdomen enlarged, and she thought herself pregnant. There was a large tumour, reaching above the umbilicus, fixed in the pelvis, of uniform solidity. The uterus was of normal size, bent backwards, and the tumour was adherent to the anterior wall and slightly movable. It was diagnosed as retro-uterine hæmatocele. The tumour subsequently increased to double its original size, due, apparently, to the sudden formation of a cyst on its upper surface, in which some solid fluctuation was perceptible. An incision was made into the abdomen with antiseptic precautions on April 30, and a cyst full of fresh blood-clot opened; this was explored, but nothing throwing

light on the case found, and the wound was closed. She rallied completely from the operation, but the pain was still intense, and the opiates were increased. On May 2 red serous fluid began to ooze from the wound, and it was clear that the cyst-cavity was suppurating. On the 6th and 7th several large clots came from the wound, and the cavity was cautiously syringed out with an antiseptic solution of phenol twice daily. On May 16 a piece of bone was removed, which proved to be a fetal skull-bone of the third or fourth month, and an entire fœtus was drawn out through a hole in the original tumour which led into the cyst previously opened. The fœtus, which was not more than three months old, was macerated and rotten. On the 17th eight or nine inches of the umbilical cord came away. On the 18th the patient was anæmic and exhausted, and for the next eight days extremely ill, but she began to rally on the 26th, and on the 29th a large piece of placenta was extruded. The discharge then ceased, she began to take her food well, and the wound became healthy, and on June 10 had rapidly contracted. The diagnosis was approximately correct in so far that the lesion was one of hæmatocele, and the abdominal section was accidentally the means of saving the patient. The author made it a rule to open the abdomen in all doubtful cases as to the nature of the tumour, where there seemed a possibility of benefit from operative proceedings; and in between fifty and sixty cases he, as in this, had had no reason to regret the proceeding. A temperature-chart was attached to the paper.

Mr. ALBAN DORAN believed that the recurrence of symptoms of pelvic hæmatocele in the course of a few months, in a married woman, was strongly indicative of extra-uterine fœtation. He had seen a case, in consultation with Dr. Conolly and Mr. Spencer Wells, in which the patient died in a third attack of hæmatocele. At the necropsy he found a large quantity of fluid blood in the abdomen. Beneath this, in Douglas's pouch, was a minute layer of decolourised fibrin—the remains of the second hæmorrhage; and beneath this again was the residue of the first hæmorrhage, in the form of another decolourised layer of fibrin. A fœtus of about six weeks' growth was found in one of the Fallopian tubes. Considering the great mortality attending extra-uterine pregnancy, he thought that, in all cases where this condition was believed to exist, an abdominal incision should be made under the antiseptic spray.

Dr. HEYWOOD SMITH thought that it was a rule that the placenta should not be interfered with in such cases.

Mr. KNOWSLEY THORNTON referred to a case which had been sent to the Samaritan Hospital as one of ovarian disease. There was a large doughy mass in front, without distinct fluctuation, and a solid mass was felt in Douglas's pouch. He thought that it was a malignant growth; and an exploratory opening was not made. After she had been a few days in hospital, she died of pelvic hæmorrhage. At the post-mortem examination there was found to be extra-uterine gestation; the fœtus was a monstrosity. In this case there had been repeated hæmorrhages.

Mr. SPENCER WELLS said that an operation was proposed in Dr. Conolly's case (referred to by Mr. Doran), but was objected to by the patient and her friends. He had seen a similar case, with Mr. Coates, of Salisbury, where there had been repeated signs of pelvic hæmatocele, in which also the proposal to open the abdomen was negatived. The proved safety of making abdominal incisions, under antiseptic precautions, would justify the surgeon in urging the proceeding on patients and their friends more strongly than could have been done two or three years ago. He had performed ovariectomy under the antiseptic method in eighty-one cases, with only six deaths; but before he used antiseptics he had never had a lower death-rate than 10 per cent. Increased experience and skill might have something to do with the reduced mortality; but he did not think that they would account for the great reduction which had taken place in two years.

Dr. MATTHEWS DUNCAN had met with three cases of extra-uterine fœtation in London. In two of them the fœtal heart-sounds were heard; but while he was delaying operation until the period of viability the children died. The women were now apparently quite well. The third patient was still in hospital. She had lately had another attack of hæmatocele, blood being discharged from the rectum, but was going on well.

Mr. HOLMES said that the more he heard of the value attributed to antiseptics, the more he was convinced that

much depended on impressions rather than on demonstrated facts. He thought that the reduction of mortality in Mr. Spencer Wells's cases from 9.8 to 7.4 was not enough to prove anything. The increased proportion of recoveries might arise from accidental circumstances rather than from the use of anæsthetics. No physical proof of their influence was at present available. He believed that the success of antiseptic surgery depended in great measure on the fact that attention was given to details by the surgeon, and that interference by other persons was prevented.

Mr. RIVINGTON thought it had long been held unwise to interfere with the placenta in cases of extra-uterine pregnancy.

Mr. TAIT said that the principle of non-interference with the placenta was laid down by Kœberlé in 1869 or 1870. He thought that the value of antiseptic treatment lay much in attention to detail. He carried out this principle rigidly himself. One day, however, he did not test the ligatures, and broke three in tying the pedicle; he found that they had been imperfectly dried, and had become rotten. If minute details were attended to by the surgeon himself in other operations there would be increased success, even without antiseptics. In Dr. Duncan's cases the recovery was only apparent. He did not think that operation should be delayed until the fœtus became viable.

THE CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 14.

Dr. GREENHOW, F.R.C.P., F.R.S., President, in the Chair.

A CASE OF CONGENITAL SEBACEOUS DISEASE OF THE HEAD AND NECK.

Dr. RADCLIFFE CROCKER read a paper on this case, which was that of a male infant, aged six weeks when brought to University College Hospital. It was born with patches on the skin of the occiput, left side of the head, both cheeks, and the front of the neck, this last joining by processes those on the cheeks. Small patches existed on the left ala nasi and inner angle of left orbit, and in the vicinity of the large patches. The patches varied much in size, the largest on the occiput measuring nine inches and three-quarters by two inches and three-eighths in its greatest dimensions, the smallest about a quarter of an inch in diameter. They were irregular in shape, narrow processes branched off from them, and showed signs of being formed by the coalescence of several into one by small sulci, sometimes with a slightly raised edge at the borders of the sulci. The whole patch was slightly raised, the edge more than the rest, and these edges consisted of comedones, with their usual black tops. These were also seen—but not so close together—on the borders of some of the dividing sulci, and occasionally one or two sometimes suppurating on the surface. The general surface at first sight appeared smooth, but on looking at it closely it was seen to be finely granular, a pale yellowish-red, but varying in tint, growing redder when the child cried, and paler when exposed to cold. The patches on the scalp were quite hairless; they had not increased in size since birth, and the mother thought they were decidedly less prominent, but not smaller. The child was well nourished, the skin was healthy except for these patches, and had not any other kind of eruption. There were no snuffles when first brought to the hospital, but it caught cold three days after, and then snuffled slightly. There was no evidence of syphilis besides this, either in the infant or his sister, three years old, the last being in good health. The mother had not been ill, or even ailing, since her marriage, five years before; and the father had never had a day's illness for the seven years she had known him. The presence of comedones on the edge, and occasionally on the surface, suppurating like ordinary acne, point to its being of sebaceous origin; and though the surface might be of a different nature, the individual granules have much the appearance of milium on a small scale, with a yellowish tint. The case appears to be unique.

Dr. DYCE DUCKWORTH had seen nothing like this case before. He was inclined to think that there must be some syphilitic taint. The submucous glands were evidently enlarged. He suggested that a committee be appointed to examine the case more carefully and report to the Society.

The PRESIDENT nominated as members of this committee Dr. Dyce Duckworth, Mr. Hutchinson, and Dr. R. Liveing.

A CASE OF OPHTHALMITIS (DOUBLE) TREATED BY DUBOISIN AND MERCURY.

Dr. W. SPENCER WATSON read this paper. Both eyes of a woman, aged thirty-seven, were seized, one a few days after the other, with acute ophthalmitis, with severe pain, tenderness, and inflammatory redness, but no purulent discharge from the conjunctival surfaces. The sight was so nearly destroyed that the patient had to be led into the waiting-room. Duboisin drops were used freely and frequently after the failure of atropine, and at the same time mercury was administered by inunction and by the mouth. The gums became tender in a few days, and simultaneously an improvement took place in the condition of the eyes, the sight gradually improving in both, and so much so that in the eye last and less severely affected good-sized type was distinguishable, and she could do needlework at the end of a month's treatment. The duboisin drops produced full dilatation of the pupils, and though used at intervals of only two hours for some days, no toxic effects were observed, such as have been noticed by other surgeons. The highly congested state of the conjunctival and ocular vessels may have been an impediment to the rapid absorption of the drug, and the usual constitutional symptoms may have been prevented from this cause.

The PRESIDENT doubted the exact analogy of such cases to the ocular mischief in cerebro-spinal meningitis.

A CASE OF PERFORATING WOUND OF THE LUNG, ENDING IN RECOVERY.

Dr. THEODORE WILLIAMS contributed this paper on a case reported by Surgeon-Major Alcock. On May 8, 1878, Trooper G., of the Frontier Light Horse, aged thirty, during the Transkei War in South Africa was struck through the chest by a rifle-bullet in a close attack on a Kaffir position. He was carried to the field hospital, two miles and a half distant, and arrived in a very exhausted state. The bullet had entered through the fourth intercostal space on the right side internal to the nipple, and had escaped through the ninth rib, which it fractured about an inch and a half from the spinal column. Air, blood, and mucus escaped freely from both wounds, and the patient expectorated a considerable amount of blood. The wounds were treated by lint soaked in carbolic acid, covered with loose freshly picked oakum, held on by a bandage, so as to act both as a respirator and disinfectant to the wounds. The dressings were changed night and morning, and the parts carefully washed with a solution of Condyl's fluid. Chloral and morphia were given from time to time. During the first two days the patient was distressed by the frequency of the cough, and the temperature was 100.2° Fahr.; but afterwards he rapidly improved, the discharge being copious from both wounds, and except on one occasion, when, owing to the bandage being tightened, the secretion was pent up, thereby causing distress and slight rise of temperature, no drawbacks occurred, and the patient was able to be out of doors one month after the injury, with both wounds healed, and free from cough. The lung was thickened along the track of the bullet, and there were some signs of consolidation in the lower lobe.

Mr. BRYANT said that the case illustrated the advantage of non-interference, and the evil of over-inquisitiveness, in these cases; and, secondly, the value of perfectly free drainage. In this case, when the drainage was stopped, bad symptoms supervened. If in such accidents the opening was not free enough, it ought to be enlarged.

Dr. JAMES POLLOCK thought the case of importance as showing that such wounds are not necessarily fatal, and seemed to encourage the idea of tapping and draining cavities in the chest. Still more was this the case in empyema.

A CASE OF SYPHILIS WITH NEARLY COMPLETE REMOVAL OF THE FRONTAL BONE.

Mr. A. T. NORTON read notes of a case of syphilis in which the frontal portion of frontal bone, the roof of both orbits, the ethmoid bone, parts of both superior maxillary bones, the vomer and palate, the left wing of the sphenoid bone, and the left eye were removed, followed by complete restoration to health. The subject of the paper contracted syphilis in June, 1866. He was of a strumous constitution, having suffered previously from strumous psoriasis, and since

acquiring syphilis, from strumous arthritis of the left knee-joint, followed by ankylosis. The chancre healed in about five weeks, and was followed by an eruption of small vesicles and sores every two or three months for more than a year. The glands of the groin were swollen, but the patient never suffered from sore throat, nor from any cutaneous eruption whatever. His habits were intemperate, and about a year after the chancre, syphilitic ulceration attacked the matrix of several toe-nails. About Christmas, 1873, he had a severe attack of syphilitic laryngitis, and in 1875 a suppurative and foul discharge flowed from both nostrils, followed by necrosis of the bones of the nose, and of the left palate and superior maxilla. From time to time pieces of bone were removed by various surgeons, and in June, 1876, he came under Mr. Norton's care. At that time the ethmoid bone was necrosing, and a suppurating node occupied nearly all the frontal portion of the frontal bone. All stimulants, of which he had previously been taking a large quantity, were prohibited, and the iodide of potassium treatment stopped. Quinine and iron and opium, with milk and simple diet, were advised, and a point was made of not allowing the patient to undergo any change of temperature. In October, 1876, sight was destroyed in the left eye, and the left half of the sphenoid bone was separating: this mass of bone was ultimately removed through the nose; a large part of the left superior maxilla having previously been taken away, allowing space for the operation. It was now evident that the frontal and ethmoid bones would be destroyed, and the suppuration was exhausting. The patient was, therefore, never allowed to leave the house, but kept in an unchanging temperature of 62°. On July 4, 1878, the bones were in a fit state for removal. An incision was made perpendicularly upwards from the nose to the sagittal suture, and from each end of this central incision lateral incisions were carried outwards—in the upper part along the coronal suture, and in the lower part along the orbital ridges. The flaps thus formed were turned outwards to expose the whole of the frontal bone. Gentle traction and manipulation brought away the frontal portion of the frontal bone as far outwards as the temporal ridges, the cribriform portion of the ethmoid bone, and the roofs of both orbits. The left eye being inflamed and suppurated, and its sight gone, was also removed. Granulations rapidly sprang up, and the discharge was no longer foetid; some bone was re-forming over a part of the forehead. Mr. Norton considered it astonishing that health could have been maintained under the prolonged and exhausting suppuration which occurred during the separation of the extraordinary quantity of necrosed bone, especially as much of the pus, which was horribly foul, found its way into the stomach through the nose. Further, it was remarkable that the brain should be in no way affected, notwithstanding that not less than its entire anterior third was supported and covered in by cicatricial tissue only. As far as treatment was concerned, the drugs usually administered in syphilis were avoided, the object being to maintain a desire for food, and—looking upon a patient suffering from syphilis as one predisposed in the extreme to inflammation—to avoid all changes of temperature, and so withdraw the patient from the influence of the most common exciting cause of inflammation.

Mr. HEATH asked where the bones were which had been removed.

Mr. BRYANT proposed that the discussion should be postponed until the portions of bone were before the meeting. There was new bone present, and the formation of new bone under such conditions was rare.

Discussion postponed accordingly.

A CASE OF UNUSUAL DEVELOPMENT OF KELOID IN SMALL-POX SCARS.

Dr. GOODHART read this paper. The patient, aged sixteen years and a half, had never been vaccinated, and in March last he had small-pox. The disease was so severe that bed-sores formed on his shoulders, elbows, hips, and back. He was in bed four months, and during that time the present disease came on. Since that time it has been slowly decreasing. The face and neck, shoulders, and upper extremities, and the legs, are the parts where the disease is most abundant. On the thighs it attacks the seats of old bed-sores, and over each great trochanter, and over the sacrum there is a similar keloid scar. The appearances in the various parts vary somewhat. Thus, on the face, where

perhaps the greatest exuberance of growth is shown, there are large flattened masses of solid growth, occupying chiefly the inferior maxillary region, though by no means confined to it. The skin of the face is more or less trabeculated all over by an irregular growth of thickened scar-bands, giving the features a rather elephantine expression. The cuticle in these parts is red, traversed into small capillary vessels, smooth and shiny. The sacral and trochanteric regions show similar masses of keloid, but in these parts the entire scar is not universally affected, and the skin is much deeper in colour, being a dark purplish-brown, like a recently healed wound. From the ill-defined outline of the disease in these parts, and the depth of the pigmentation, the author believed that the disease was disappearing, and the patient himself and his father say that they are less in size. On the arms and forearms, except over each olecranon, where there has been a bed-sore, the keloid lumps are mostly circular and discrete, though numerous, and the same may be said of the legs. In both arms and legs they are mostly about half an inch in diameter, a deep livid brown in colour, smooth on their surface, and indurated like an infiltrated scar. They are mostly present on the outer aspect of the arm and forearm, on the back of the hand, and on the shin. Some of the lumps in both legs and forearms are certainly disappearing, leaving a soft, slimy, slightly depressed, pigmented cicatrix. The unaffected skin, that mostly is on the lower part of the trunk, is thickly covered with the pits of small-pox vesicles, but these as yet show no alteration like keloid, though they are distinctly raised. There is no history of any tumours in the family so far as the patient himself can say, and his father. Dr. Goodhart said he had brought the case to the Society for three reasons—first, because it seemed to be a very unusual extent of development of keloid, and in reference to its occurrence in the cicatrices of small-pox, he would say that it seemed to him possible that in the small-pox scar there might be some unusual facilities afforded to such a growth as this, because he had observed keloid not unfrequently take place in vaccination scars; secondly, he wished to hear from any member who might have seen any similar case whether he was justified in holding out, as he was doing, a hope to the patient that the keloid will ultimately all disappear; and further, in order to show the case at this early stage, that if anything unusual happened he might exhibit the patient again in some months' time.

Mr. B. SQUIRE thought that a marked distinction could be drawn between the keloid of syphilitic scars and that of non-syphilitic origin.

Mr. CHRISTOPHER HEATH considered this case to resemble in character the ordinary keloid, but unlike the variety known as Addison's. He had not known a keloid developed after a burn to disappear.

Mr. B. SQUIRE explained that he agreed to call the instance under discussion one of ordinary keloid; but it differed from the syphilitic variety. The spontaneous keloid followed non-syphilitic scars, and might disappear spontaneously.

Mr. GANT drew attention to the fact that one of the most interesting features of the case was the marked symmetry of the growth; patches on the jaw and shoulders being markedly so. He thought the development of the keloid might be intimately dependent on the condition of the blood; and he further showed how the influence thus exerted could be traced in numerous instances.

Mr. MORRANT BAKER said he had then in the outer room a patient exhibiting Addison's keloid, and it would be interesting to compare the two cases. He could not follow the distinction attempted to be set up by Mr. Squire.

Mr. B. SQUIRE had observed a marked difference in the plates depicting the varieties of keloid in Alibert's works, and it was on this that, together with the result of his own personal observation, he founded his belief. These enabled him to distinguish an essential difference between syphilitic and ordinary keloid.

Dr. DUCKWORTH pointed out that Mr. Hutchinson had declared keloid to follow on the formation of scars, almost invariably. Alibert's keloid, however, was frequently a sequela of irritant applications, and its common occurrence over the sternum could be attributed to the blistering of the præcordial region. In a case under his own care this had taken place, Alibert's keloid developing gradually after. In the case under discussion the present soft vascular masses would, he thought, in time become firmer and more scar-like. He

did not know any distinctive signs whereby syphilitic keloid might be separated from the ordinary form.

Dr. LIVEING observed that Hebra mentions one or two kinds of keloid in acne scars. He imagined spontaneous keloid might originate in small scars.

Mr. MALCOLM MORRIS mentioned a case in which keloid, that eventually almost entirely disappeared, followed after operation. He was struck by the remarkable symmetry exhibited in Dr. Goodhart's patient, and thought it notable that the symmetrical appearances should be found where keloid developed on the loci of bed-sores independently of scars.

Dr. CROCKER had recently treated a case in which keloid developed on acne scars. The spots had never disappeared in his experience. He thought there might be more than one phase of keloid, and suggested that Dr. Goodhart should remove one of the spots from his patient and submit it to examination.

The PRESIDENT proposed the appointment of a committee to inquire into and investigate this case, and draw up a report dealing with the differences that may exist between the varieties of keloid.

Mr. GOLDING BIRD detailed a case in which keloid followed a boil. At the end of a year it was raised as much as one-third of an inch above the skin, and was as large as a split hazel-nut. At the present time, three years after, the skin present only a white scar. He could vouch for the absolute accuracy of his description, being, he said, himself the subject of it.

Dr. C. FOX had seen keloid tumours distributed over the whole body, as many as twenty or thirty in number. They were large and pedunculated, some the size of a largish mushroom. They had been under observation fifteen years, and had been removed, but returned again.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, NOVEMBER 5.

W. S. PLAYFAIR, M.D., F.R.C.P., President, in the Chair.

FIBROUS TUMOUR OF OVARIES.

Mr. CULLINGWORTH (of Manchester) exhibited a specimen of fibrous tumour of both ovaries, removed after death from a woman aged thirty-six. The tumours were solid throughout, except that in one of them there was a small serous cyst, an inch in diameter, and the microscope showed them to be pure fibromata.

Mr. LAWSON TAIT thought the effusion into the pleural and peritoneal sacs pointed to the growths being malignant in character.

Dr. CARTER had removed a simple fibroma of the ovary weighing over fifteen pounds.

The specimen was referred to Messrs. Knowsley Thornton and Doran for examination and report.

OVARIAN TUMOUR.

Dr. GALABIN showed microscopic sections from a portion of an ovarian tumour removed by operation. The cyst had been tapped previously, and from the low specific gravity of the fluid and the absence of albumen it was held to be probably parovarian. It soon refilled, and when removed was found to be a multilocular true ovarian cyst.

DECIDUA CAST OFF WITHOUT ABORTION OCCURRING.

Dr. PLAYFAIR exhibited a specimen of several large pieces of uterine decidua, illustrating the extent to which the ovum may sometimes be interfered with, without abortion occurring. The structure escaped after the passage of the uterine probe, through an error in diagnosis. Notwithstanding this the pregnancy had progressed.

UTERINE DILATORS.

Mr. LAWSON TAIT showed his instrument for dilating the uterine canal by continuous elastic pressure.

ON NEW METHODS OF OPERATION FOR REPAIR OF THE FEMALE PERINEUM.

Mr. LAWSON TAIT divided these into two classes—(1) those where the laceration is complete, and (2) those where it is incomplete,—ranking in the first class all those cases in which

the damage has caused inability to retain the fæces, whether or not the sphincter was torn through. The principles upon which the new method of operation are based are chiefly two. The first is that no tissue is removed, flaps being lifted only, so that, if the operation fails, they go back to their original position. The second relates to the method of application of the stitches, these being placed in the axis of the wound, and so as to be practically continuous, instead of (as in the usual operation) being passed through the thickness of the flap, and being interrupted. After the operation, small enemata of oil are administered daily in order to guard against the accumulation of hardened fæces. The stitches are not touched for a fortnight.

ON EXPRESSION OF THE UMBILICAL CORD.

Dr. MATTHEWS DUNCAN read a paper in respect to this. He remarked that the cord might be *previous*, as the placenta or a limb might be. Prolapse proper was a falling or slipping of the cord out of the womb; and various conditions, as low insertion, or length of cord, or excess of liquor amnii, favoured its progress. But there was a third mode in which prolapse might be produced, viz., by expression. The mechanism of expression explained the frequent failure of keeping the cord replaced by the genupectoral position. Expression of the cord had analogies in expression of the placenta and of a limb or of limbs, and in other phenomena of labour both natural and morbid. The fœtus was not a rigid body, neither was it a uniformly viscous mass. Yet, under the influence of compression, its most mobile part advanced quickest. Such most mobile part might be a limb or it might be the cord, and its progress might go on to complete prolapsus.

Dr. ROPER remarked that he had brought the subject of prolapse of the funis before the Society in a paper published in its *Transactions* (vol. xvii.). He had therein described the difficulty of retaining it in position after it had been replaced, as the next pain would force it down, or, as the author terms it, *express* it.

NEW INVENTIONS AND IMPROVEMENTS.

FELLOWS' COMPOUND SYRUP OF HYPOPHOSPHITES.

THIS is a well-made syrup, containing, in almost perfect solution, the hypophosphites of iron, quinine, strychnia, manganese, lime, and potash—the proportion of strychnia being one-sixty-fourth of a grain in each fluid drachm. The syrup therefore contains, in a convenient form, several of the most powerful of the so-called nervine tonics. The syrup has a very slightly alkaline, or almost neutral, reaction, and may consequently be found useful in those cases in which acid solutions of iron and quinine disagree, or are for any other reason undesirable. The compound is not at all unpleasant to take, and so long as it is kept in a cool place is not liable to change. The European agents for "Fellows' Compound Syrup of Hypophosphites" are Messrs. S. Burroughs and Co., 8, Snow-hill.

GRANULAR EFFERVESCENT EXTRACT OF NUXVOMICA.

GRANULAR EFFERVESCENT CITRATE CAFFEINE.

WE have also received from Messrs. S. Burroughs and Co. samples of these preparations, made by Alfred Bishop, well and favourably known as a manufacturer of this form of medicines. The first of the two preparations supplies a pleasant and useful way of taking extract of nuxvomica, one-twelfth of a grain of which is contained in each drachm. Each bottle of the preparation as sent out is very conveniently and ingeniously fitted with a wooden cup, by which a drachm dose of the preparation can be measured out. The granular effervescent citrate of caffeine provides a similarly convenient and still more pleasant medicine, which has been largely tried, and with no little success, as a remedy for sick headache and other nervous disorders. One drachm contains a grain of the salt, and a full teaspoonful of the preparation is the dose recommended to be taken every one or two hours before or during the paroxysms of the nervous attacks.

PATENT COMPRESSED EFFERVESCENT.

MESSRS. WHEELER AND Co., 7, George-yard, Fenchurch-street, provide the so-called citrate of magnesia in a new and very advantageous form. The compound—acknowledged to be a preparation of "saccharine, citric, and tartaric acids, bicarbonate of soda, and magnesia—is compressed into hard cubes, one of which suffices to make a tumblerful of water a pleasant effervescent drink. The cube dissolves slowly and gradually, and consequently the effervescent state is so prolonged that the solution may be drunk very leisurely. This gives the preparation a decided advantage over the ordinary effervescing citrate of magnesia preparations, in which the effervescence is generally rather unpleasantly sudden and rapid.

PURE EXTRACT OF MALT. MALTED CHOCOLATE PASTE.

It appears to be now generally recognised that extract of malt possesses marked and considerable power of promoting the digestion of farinaceous foods, and is consequently a valuable nutritive and restorative agent in many conditions of debility and imperfect nutrition. We have already noticed favourably some preparations of it; and we have no hesitation in strongly recommending to the notice of the profession the "Pure Extract of Malt" now brought out by Messrs. Allen and Hanbury, of Plough-court. It is of a delicate brown colour, of about the consistence of good light-coloured treacle, has absolutely no burnt smell, is of a very agreeable flavour, and is entirely free from alcohol and carbonic acid. It may be taken in water, wine, or milk, with or immediately after meals, and, we have no doubt, possesses in a high degree all the remedial qualities attributed to malt extracts. Messrs. Fry have combined this malt extract with their excellent paste chocolate, and formed a malted chocolate which is a highly agreeable beverage, and must contain a large amount of nourishment in a very digestible form. We have recommended the preparation, and it has been pronounced to be "delicious."

LAWTON'S ABSORBENT COTTON.

This cotton-wool, for the supply of which Messrs. S. M. Burroughs and Co., Snow-hill, are the sole European agents, is an admirably prepared article. It is of a pure white colour, exquisitely soft and fine, and of uniform quality; and, in consequence of its being perfectly cleansed from all impurities, it is so absorbent that when a small wad of it is dropped into water it immediately becomes soaked through and sinks to the bottom of the vessel. It is unnecessary to point out how useful and valuable such a pure and highly absorbent cotton must be to surgeons and gynecologists, with the object of taking up discharges or of applying medicated solutions.

PUERPERAL HÆMOPTYSIS.—In two interesting clinical lectures reported in the *Union Médicale*, Nos. 94 and 96, Prof. Peter relates some cases which have occurred in his practice, of hæmoptysis occurring either during pregnancy or after delivery or while suckling. There is, in fact, a normal pulmonary plethora in these conditions revealed by an increase of temperature to the extent of half a degree (C.) or more at the lower intercostal spaces. This pulmonic plethora may in some cases become transformed into pulmonary congestion or inflammatory action, but is independent of the presence of tubercles. Not only do these cases differ from tubercular hæmorrhage by the absence of the signs of tuberculation, but also, and principally, by the character of the sputa. These, indeed, may be of a bright red at first, but they speedily become of a blackish-red, and later even quite black. At first more or less large in size and distinct from each other, at a later period they are small in volume, and almost always of slight abundance. Moreover, they are not accompanied by mucosities. In other words, they are such as are observed in pulmonary apoplexy, and, in fact, it is really a pulmonary apoplexy which gives rise to them. In typical cases of this kind there is a complete absence of fever, but in others there may be more or less fever, and even slight broncho-pulmonary inflammation. In treating such cases, according to whether fever is or is not present, mere expectation, or cupping, blistering, laxatives, and antimony, may be required.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following are lists of the candidates who have passed the recent Second M.B. Examination:—

First Division.—William Stratford Andrews, University College; Gilbert Harry Barling, St. Bartholomew's Hospital; James William Bond, University College; James Stanley Newton Boyd, University College; Arthur Edward Buckell, University College; Daniel Colquhoun, Charing-cross Hospital; Francis Richardson Cross, King's College; James John Macwhirter Dunbar, St. George's Hospital; Thomas Warberton Fuller, Guy's Hospital; James Percy Alwyne Gabb, University College; Thomas Ernest Hayward, St. Bartholomew's Hospital; George Ernest Herman, London Hospital; John Edward Hine, University College; Richard Hughes, St. Bartholomew's and Middlesex Hospitals and Manchester Royal Infirmary; George Mackern, Guy's Hospital; Tiaeliesin Wilim Owen Pughe, Liverpool Royal Infirmary and Guy's Hospital; George Hannah Russell, Guy's Hospital; Harrington Sainsbury, University College; Charles Edward Sheppard, St. Thomas's Hospital; Robert Percy Smith, St. Thomas's Hospital; William Hale White, Guy's Hospital; Dawson Williams, University College.

Second Division.—Frederick Rowland Barker, St. Thomas's Hospital; Charles Edward Beavor, University College; Donald Frederick Dymott, University College; William Henry Russell Forsbrook, Westminster Hospital; Richard Gill, B.Sc., St. Bartholomew's Hospital; Thomas Hahnemann Hayle, Owens College and Manchester Royal Infirmary; James Hudson, University College; Alfred Austin London, University College and Middlesex Hospital; Alfred Ernest Maylard, Guy's Hospital; William Henry Neale, University College; William Frederick Shain, Liverpool School of Medicine; Harold Gilbertson Taylor, King's College.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences in Medicine and Midwifery of the College, held on Monday, Tuesday, Wednesday, and Thursday, November 10, 11, 12, and 13, the following candidates were successful:—

For the licence to practise Medicine—

Baylor, Robert Jonathan.	Middleton, Lucas Alfred.
Bourke, William Henry.	O'Connor, Arthur Patrick.
Browning, Winthrop Benjamin.	Ryan, Daniel.
Dillon, Valentine Plunket.	Skerrett, Frederick Thomas.
Doyle, Francis Joseph.	Staley, John Christopher George.
Langan, Joseph.	Symes, Richard Henry.

For the licence to practise Midwifery—

Baylor, Robert Jonathan.	Langan, Joseph.
Bourke, William Henry.	Middleton, Lucas Alfred.
Cohen, Abraham.	O'Connor, Arthur Patrick.
Dillon, Valentine Plunket.	Quin, John Dominic.
Doyle, Francis Joseph.	Ryan, Daniel.
	Symes, Richard Henry.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 17th inst., viz.:—

Bowe, Francis, L.S.A., Shipley, Yorks.
Cama, Rastamji H., L.M. Bombay, Bombay.
Fellowes, H. T. A. B., L.S.A., Chobham.
Gabe, John, L.S.A., Merthyr Tydfil.
Harrison, James, L.S.A., Windermere.
Mead, George O., L.R.C.P. Ed., Newmarket.
Murray, Henry W., M.B. Dub., Limerick.
Parsons, Herbert F., L.S.A., Frome.
Pearce, John P., L.S.A., St. Austell.
Purkiss, Arthur, M.B. and C.M. Aberd., Clapham.
Sanders, John W., L.S.A., Trowbridge.
Veale, William E., L.S.A., Plymouth.
Walker, John S., L.S.A., Adelphi-terrace.
Whiteley, George W., L.R.C.P. Ed., Wakefield.

One gentleman passed in Surgery, and, when qualified in Medicine, will be admitted a Member of the College; and ten candidates were rejected. The following gentlemen were admitted on the 18th inst.:—

Ansted, Hugh L. P., Melton, Suffolk, student of King's College Hospital.
Benthall, Alfred Elliott, Sherborne, of University College Hospital.
Betts, Edward George, L.S.A., Holloway, of the Middlesex Hospital.
Cleaver, John Charles Carleton, M.D. Kingston, Kingston, Canada, of the Kingston School.
Davies, John Morgan Lloyd, L.R.C.P. Edin. and L.S.A., Cardigan, of the Middlesex Hospital.
Farrer, Robert Thompson, Brighouse, Yorks, of the Leeds School.
Fialho, Joas H., L.R.C.P. Edin., Goa, of University College Hospital.
Gwynn, Reuben H., L.R.C.P. Edin., Caterham, of St. Thomas's Hospital.
Haycroft, Charles Henry, L.S.A., Starcross, of Guy's Hospital.
Hills, Hugh Gardiner, Kensington, of St. Mary's Hospital.
Howell, T. Arthur Ives, L.R.C.P. Lond., Wandsworth, of Guy's Hospital.
Hudson, Theodore Joseph, Cottingham, near Hull, of the Leeds School.
Jefferson, Arthur John, L.S.A., New Hampton, of St. Thomas's Hospital.
Jones, Charles Montague Handfield, Green-street, Grosvenor-square, of St. Mary's Hospital.
Lawford, John Bowring, M.D. McGill, Montreal, of the McGill University.
Liebstein, Herman John, L.S.A., Highbury-hill, of Guy's Hospital.
Luckman, Edward Llewellyn, Manchester, of the Manchester School.
Maberly, Henry Edward, Birmingham, of the Birmingham School.
Maddick, Edmund D., L.R.C.P. Edin., Brixton, of St. Thomas's Hospital.
Mitchell, James T., M.B. Aber., Adelaide, of University College Hospital.

Morgan, James, L.R.C.P. Edin., Holloway-road, of the Dublin School.
Parker, William Rushton, Liverpool, of University College Hospital.
Penruddocke, Charles, Bristol, of the Bristol School.
Pilkington, George, Yarm-on-Tees, of Guy's Hospital.
Peston, H. T., M.B. Aber., Bournemouth, of St. Bartholomew's Hospital.
Priest, James D., L.S.A., Waltham Abbey, of St. Bartholomew's Hospital.
Smith, Sydney, L.R.C.P. Lond., Weston-super-Mare, of Guy's Hospital.
Steele, Richard, L.R.C.P. Edin., Blackheath, of Guy's Hospital.
Sutcliffe, John, Staleybridge, of the Manchester School.
Swindells, John Adam, Holmes Chapel, Cheshire, of the Manchester School.
Tarleton, P., M.R.C.P. Edin., Leamington, of St. Bartholomew's Hospital.
Taylor, David, M.D. Queen's Univ. Ire., Belfast, of the Belfast School.
Thomson, George James Crawford, L.S.A., Amberley, Gloucestershire, of St. Thomas's Hospital.
Vinrace, Felix Coulson, Birmingham, of the Birmingham School.
Willoughby, James F. Digby, South Audley-st., of St. George's Hospital.
Wright, Christopher St. John, L.S.A., Priors Marston, of Guy's Hospital.
Seven candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months. The following gentlemen were admitted on the 19th inst., viz.:—

Barnes, Henry John, Thornhill-crescent, N.
Rentoul, Robert R., L.R.C.S. Edin., Lisburn, Co. Antrim.
Bernard, Alfred G. F., Birmingham.
Campton, F. Charles, L.R.C.P. Edin., Hans-place.
Close, Percy, York.
Cuffe, Edward Meade, Woodhall Spa, Lincolnshire.
Firth, Robert H., Ware, Herts.
Griffith, Edward P., Oakley-square, N.W.
Gwillim, Richard D. H., Marlborough, Wilts.
Hare, F. W. E., Welbeck-street.
Henderson, William H., Kingston, Canada.
Humphry, Lawrence, B.A. Cantab., Princes-square.
Millican, Kenneth W., Shepherd's-bush.
Nicholson, R. W. E. H., Exeter.
Penny, William J., Crewkerne.
Pollard, Bilton, West Dulwich.
Smyth, Sydney, East Worlington.
Swabey, Louis W., Faringdon, Berks.
West, G. H. W., L.S.A., Eckington, Chesterfield.

Five were rejected.

Surgical Examinations.—The following were the questions on Surgical Anatomy, and the Principles and Practice of Surgery, submitted to the candidates at the pass examination for the diploma of membership of the Royal College of Surgeons on the 14th inst., when they were required to answer at least four (including one of the first two) out of the six questions, viz.:—1. Describe, in their position, the several parts in relation with the quadratus lumborum. 2. Describe the operation of tying the subclavian artery in the third part of its course. Give the channels through which the collateral circulation would be afterwards carried on. 3. What are the usual complications of scalp wounds, and the appropriate treatment in each case? 4. What consequences, proximate or remote, may follow a blow upon the perineum? State what would be your early treatment in such a case. 5. Describe the course, symptoms, and treatment of acute inflammation of a superficial bursa. 6. What is the cause of lateral curvature of the spine? Describe the anatomical changes which take place in this affection, the signs of the deformity, and the principles of treatment. The following were the questions on the Principles and Practice of Medicine submitted to the candidates on the 15th inst., viz.:—1. Describe emphysema of the lungs. How is it produced? on what diseases does it supervene? and what are the symptomatic and other consequences to which it gives rise? 2. Give the chemical and physical characters of gall-stones. Discuss the symptoms which may arise in the progress of a gall-stone from the gall-bladder to the duodenum; and especially consider the effects of obstruction of the common duct directly on the liver and indirectly on the general system. 3. What are the special uses and doses of the following drugs?—Sulphuric acid; nitric acid; bicarbonate of potash; acid tartrate of potash; iodide of potassium; sulphate of zinc; nitrate of silver; tincture of senega; tincture of Indian hemp; tincture of nux vomica; ethereal tincture of lobelia; croton oil; elaterium; tincture of belladonna; and wine of aloes.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 13:—

Jefferson, Arthur John, New Hampton, Middlesex.
Liebstein, Herman John, Highbury-hill, N.
Priest, James Damer, Waltham Abbey.
Rice, Richard, Little Barrington Vicarage, Burford, Oxon.
Thorn, William Herschel Perceval, 87, Harrow-road, W.

The following gentleman also on the same day passed his Primary Professional Examination:—

Bertolacci, John Hewetson, St. George's Hospital.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

LARQUIER, VALBERT, M.R.C.S., L.R.C.P.—Junior House-Surgeon to the Carlisle Dispensary.

WALTERS, J. HOPKINS, M.R.C.S. Eng., L.M., L.S.A.—Assistant-Surgeon to the Royal Berkshire Hospital.

NAVAL AND MILITARY, ETC., APPOINTMENTS.

ADMIRALTY.—George Frederick Whateley, Esq., M.R.C.S., has been placed on the retired list from November 7.

BIRTHS.

AIR.—On November 12, at 88, Kennington-park-road, S.E., the wife of A. Cummings Air, L.R.C.P. Lond., of a son.

BENNETT.—On November 8, at Notting-hill, the wife of Dr. Bennett of a daughter.

CORFIELD.—On November 17, at 10, Bolton-row, Mayfair, the wife of Professor Corfield, M.D. Oxon., of a son.

CRICHTON.—On November 13, at 3, Cambridge-villas, Twickenham, the wife of George Crichton, M.A., M.B., L.R.C.S., of a daughter.

DE LA MOTTE.—On November 8, at Thorndean, Staines, the wife of P. W. De la Motte, M.R.C.P., M.R.C.S., of a daughter.

FAWSSETT.—On November 15, at Louth, Lincolnshire, the wife of Fred. Fawssett, M.D., of a son.

FERRIER.—On November 6, at 16, Upper Berkeley-street, W., the wife of David Ferrier, M.D., F.R.S., of a daughter.

GELL.—On November 13, at St. John's Lodge, Kensal-green, the wife of T. Silvester Gell, M.D., of a son.

HUMPHREYS.—On November 12, at Trinity-square, City, the wife of F. W. Humphreys, F.R.C.S., of a son.

MADDOX.—On November 13, at Southampton, the wife of R. L. Maddox, M.D., of a son.

POPE.—On November 14, at 280, Goldhawk-road, Shepherd's-bush, the wife of H. Campbell Pope, M.D. Lond., F.R.C.S., of a daughter.

PARROTT.—On November 16, at The Thorn, Hayes, Middlesex, the wife of J. Parrott, M.R.C.S., of a daughter.

MARRIAGES.

BAGSHAWE—APPLEYARD.—On November 15, at Bath, Edmund Acres Bagshawe, younger son of Edmund Lloyd Bagshawe, F.R.S.E., of 13, St. James's-square, Bath, to Mary Charlotte Annette, eldest daughter of the late Richard Hall Appleyard, Esq., of 6, Westbourne-terrace, London.

HILL—TENDER.—On November 7, at Calcutta, Captain Herbert F. Hill, 44th Regiment, to Mary, daughter of J. Tender, M.D., J.P., of Keale House, Co. Cork, Ireland.

KYNGDON—BERRY.—On November 11, at St. John's, Sydney, New South Wales, Frederick Henry Kyngdon, M.D., of St. Leonard's, North Shore, to Amy, eldest daughter of the late William Berry, Esq., of Northpark, Croydon.

MACDONALD—HOBSON.—On November 12, at Bedford, John Alexander Macdonald, M.D., F.R.C.S. Edin., Woburn, to Kate Isabel, daughter of the late William Hobson, Esq., of Eaton, Socon, Beds.

RAWLINS—TOWELL.—On November 13, at Kentish Town, W., Peter Rawlins, M.D., of Gordon House, Highgate-road, to Leda Towell, widow of Thomas Reynolds, jun., Esq., of Caversham-road.

SPENCER—BENNETT.—On November 18, at Kidbrooke, Blackheath, Alfred George Spencer, of 77, Cannon-street, to Mary Agnes, third daughter of Dr. W. C. Bennett, of Hyde Cottage, Greenwich.

YOUNG—NUGENT.—On October 9, at Poona, Henry Pottinger Young, Bombay Staff Corps, to Sara, only daughter of J. Nugent, M.D., Rutland-place, Dublin.

DEATHS.

ARDING, WILLOUGHBY, M.D., at Gothic Cottage, Wallingford, on Nov. 6, aged 74.

BENHAM, WILLIAM T., M.D., British Vice-Consul at Santiago, Chili, on September 14, aged 32.

NOYES, JAMES JOHN, Esq., at the residence of his brother, Dr. Noyes, 6, Brandram-road, Lee, on November 17, aged 63.

WADE, SEATON, Fleet Surgeon Royal Navy, at the Royal Victoria Yard, Deptford, on November 12.

WATTS, GEORGE HENRY, M.R.C.S., at Thatcham, on November 10, aged 51.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BURY DISPENSARY.—House-Surgeon. Applicants must be registered under the Medical Act, 1858, in both medicine and surgery, unmarried, and willing to engage for a period of two years. Applications, with testimonials, to be made to J. W. Kenyon, Secretary, Market-street, Bury, on or before November 29.

HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND-STREET, LONDON, W.C.—House-Surgeon. Candidates must be unmarried, and possess a legal qualification to practise. Applications, with testimonials, to be forwarded to Samuel Whitford, Secretary, on or before Thursday, Nov. 27.

JERSEY GENERAL DISPENSARY.—A Resident Visiting and Dispensing Medical Officer, possessing the double qualification, and unmarried, is wanted for December 1. Applications to be made to the Honorary Secretary, Oak-walk, Jersey.

LONDON LOCK HOSPITAL (MALE AND OUT-PATIENT DEPARTMENT), 91, DEAN-STREET, SOHO.—House-Surgeon. Candidates are desired to send in their applications, with copies of testimonials, to G. T. Fred. Abraham, Secretary, on or before December 10.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Assistant-Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England. Applications, with testimonials, to be sent to James S. Blyth, Esq., Secretary, on or before November 26.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—House-Surgeon. Application, with testimonials, to be made to Robert J. Newstead, Secretary, on or before November 22.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Altrincham Union.—Mr. C. J. Renshaw has resigned the Ashton-upon-Mersey District: area 9315; population 10,461; salary £65 per annum.

Chepstow Union.—Mr. G. H. H. De Wolfe has resigned the Tintern District: area 10,764; population 1434; salary £25 per annum.

Derby Union.—Mr. Walter G. Copestake has resigned the North District: area 2023; population 27,517; salary £100 per annum.

Dover Union.—Mr. Alfred Grandison has resigned the St. Mary's District: population 9546; salary £70 per annum. Also the Workhouse: salary £100 per annum.

Petersfield Union.—Mr. Thurston has resigned the First District: area 18,857; population 2559; salary £67 10s. per annum.

Radford Union.—Mr. Henry R. Hatherley has resigned the First District: area 6309; population 21,439; salary £50 per annum.

St. Matthew (Bethnal-green) Parish.—The First District is vacant: salary £120 per annum.

Tendring Union.—Mr. P. C. Hayman has resigned the Eighth District: area 11,836; population 2537; salary £37 per annum.

APPOINTMENTS.

Bideford Union.—Thomas G. B. Hutton, L.R.C.S. Ire., L.R.C.P. Edin., to the Hartland District.

Brixworth Union.—J. Garrett, M.R.C.S. Eng., L.S.A., to the Sixth District.

Hexham Union.—Frederick John Cropp, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A. Lond., to the Ninth District.

Leeds Union.—Cantley Dawson, M.R.C.S. Eng., L.R.C.P. Lond., as Medical Superintendent of the Infirmary, and Medical Officer of the Workhouse and Schools.

St. Austell Union.—Thomas Patrick Tuckey, M.B. and M.C. Univ. Dub., L.M., to the Third District.

Truro Union.—William P. Hugoe, M.R.C.S. Eng., L.S.A., to the St. Agnes District.

Wayland Union.—Albert Frederick Field, M.B., M.C., M.D., L.R.C.P.E., M.R.C.S., and L.S.A. Lond., to the Watton District.

Wem Union.—Henry O. Westwood, L.R.C.P. Edin., L.R.C.S. Edin., L.S.A., to the Prees District.

GOOD SERVICE PENSION.—Surgeon-General G. Smith, M.D., of the Indian Medical Department, has been selected for the good service pension rendered available by the retirement of Colonel G. T. Hilliard.

THE *City Press* says:—"The will of Dr. Patrick Black, of St. Bartholomew's Hospital, and of 11, Queen Anne-street, Cavendish-square, who died on the 12th ult., was proved on the 5th inst. by Mrs. Jane Louisa Black, the widow, Miss Jane Emma Black, the daughter, and Mr. Arthur Black, the son, the executors, the personal estate being sworn under £60,000. The testator makes bequests to members of his family and servants; to his wife he leaves his residence in Queen Anne-street, with the goods, chattels, and effects. The residue of his property is to be held upon trust for her for life, and at her decease for his issue as she shall by deed or will appoint."

GUNSHOT WOUND OF THE HEART.—Dr. Boone, of the San Francisco Hospital, relates the case of a robust man, aged thirty-six, who twenty-four hours before admission had accidentally shot himself at the lower edge of the left fifth rib with a pistol carrying a ball $\frac{33}{100}$ diameter, the ball having already been extracted from his back. He was feeble and faint, speaking only in a whisper, his pulse being 112, and his respirations 22 and not laboured. He occasionally expectorated a few drops of blood, but had no other hæmorrhage. He was kept perfectly quiet, the action of his heart being controlled by appropriate remedies, and his strength supported by nourishing diet. So he went on, until, on the thirteenth day, he spat up two drachms of blood, and fell into a state of collapse, which terminated fatally in half an hour. At the autopsy, the left lung was found floating in more than 2½ lbs. of blood, but, owing to partial decomposition, no wound in the lung could be detected. The bullet had passed through the left ventricle one inch above its apex, and passed out of the pericardium posteriorly. The furrow in the wall of the ventricle was an inch and a half long and a quarter of an inch deep, and the edges of the wound were ragged and everted. The muscular substance seemed to be thickened by inflammatory action, the appearance being that of an

attempt at reparation, without pus. The left ventricle held water, and the ball had not cut entirely through into its cavity. "It seems probable that death resulted from hæmorrhage into the lung. The point of interest in the case is that the heart and pericardium were extensively wounded by a large pistol-bullet, and that the man lived with very little suffering for thirteen days."—*Amer. Jour. Med. Sci.*, October.

ON THE EFFECT OF EXPOSURE TO COLD IN WOUNDS.—In a clinical lecture, Prof. Verneuil, alluding to a patient who had been operated upon having sustained mischief from exposure to cold, said that this influence of cold has long been observed, and especially in the case of the wounded who have to pass a night on the field of battle. Tetanus is often produced by cold, being common alike in Greenland and the torrid zone, where variations of temperature during the cold nights are very great. "I have observed three cases in which the wounds were in very good condition, but which, when mischievously influenced by cold (even for very short periods), assumed a bad aspect, with fever of 39° or 40° C.—in fact, endangering the lives of the patients. Everyone knows that erysipelas, lymphangitis, or at least elevations of temperature, may succeed to cold; but no sufficient explanation of this has been given. I believe I can throw a little light on the question from a consideration of some facts observed in an experiment instituted by Prof. Pasteur for another object. It has been said that birds cannot take *charbon* (anthrax). Prof. Colin, of Alfort, could not inoculate fowls, although he found small birds to be susceptible; but Prof. Pasteur succeeded in inoculating fowls when he lowered their temperature. Without comparing a man to a fowl, have we not the right to retain from his experiment, several times repeated, the fact that an animal which had proved refractory to a poison became impregnated with it after its temperature had been lowered? So in clinical practice do we not observe that erysipelas, lymphangitis, and pyæmia are of more frequent occurrence in winter than during warm weather? Is not a man who bears with him a poison, even in his wound, more apt to absorb this poison when the temperature is lowered?"—*Gaz. des Hop.*, November 13.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon*.

HONORARIA TO HONORARY MEDICAL OFFICERS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Would any of your readers kindly inform me of the names of the hospitals and dispensaries in Great Britain and Ireland where an honorarium is given to the honorary medical officers? I should also like to know the amount given at each institution, and the services expected from the honorary officers so as to entitle them to an honorarium.

I am, &c., JOHN C. CORMACK.

London Street Accidents.—The return of the Society for Preventing Street Accidents and Dangerous Driving for the week ending November 8 shows—killed 4, run over 57.

Evading the Law.—A chemist of Hoxton-street has been fined £5 by the Worship-street police magistrate for selling patent medicines without a licence. The defence was that the shop had been but recently taken by the defendant, and his order to take out a licence for the sale of patent medicines had been neglected.

A Teetotal Mayor.—The Mayor of Leeds (Alderman Tatham), in expressing to the Town Council his hesitation to accept the post, said—"If the people of Leeds wanted for their Mayor a Quaker and a teetotaler of strong convictions, who would lead them for the next twelve months in the line of self-denial, sobriety, and economy, with efficiency, he dared not, and could not, refuse the office."

A Defective Stove: a Fatality.—In the following case a responsibility of a somewhat novel character is suggested, but of which landlords would do well to take notice. Dr. Hardwicke recently held an inquest on the body of a girl twenty-three months old, the daughter of a zinc worker. It appeared that through the defective state of a grate, a saucepan full of boiling water fell over the deceased, who died from the results of the injuries received. The jury expressed an opinion that, under the Sanitary Act of 1866, the local authorities had the power to make a house-to-house visitation, and order the dwellings to be put into tenantable order. A defective stove ought not to be left neglected, but put in repair. They were of opinion that the parents had a just claim on the landlord for the loss of their child. At the very least he ought to pay for the funeral expenses. The owner's responsibility was the same as if the death occurred by a defective grating or railing in the street. A verdict of "accidental death" was returned.

THE COPLAND FUND.

The following subscriptions have at present been received in behalf of the above fund, in addition to those published in our columns on the 8th inst.:

"As ye would, so do ye unto them" ...	£5	5	0
Thomas Smith Esq., F.R.C.S. ...	5	5	0
A Friend ...	5	5	0
H. Sewill, Esq. ...	3	3	0
G. Bury, Esq., F.R.C.S. ...	2	2	0
Dr. Begley ...	2	0	0
J. Roche Lynch, Esq. ...	2	2	0
W. Ling, Esq., Brightonsea ...	2	2	0
Dr. G. Savage ...	1	1	0
Dr. Harvey Owen ...	1	1	0
Henry Stear, Esq., Saffron Walden ...	1	1	0
J. T. Clover, Esq., F.R.C.S. ...	1	1	0
Dr. G. C. Dale, Tooting ...	1	1	0
G. Field, Esq. ...	1	1	0

Subscriptions may be forwarded to the Treasurer, Dr. Semple, 8, Torrington-square, W.C., or to the Secretary, Arthur Norton, Esq., 6, Wimpole-street, Cavendish-square, W.

A Householder.—A return received by the Registrar-General from the London Water Companies, of the quantity of water supplied by them during the month of October, states that 134,868,556 gallons, or 612,770 cubic metres, of water (equal to about as many tons by measure, tons by weight) were supplied daily; or 236 gallons (rather more than a ton by weight) to each house, and 33·2 gallons to each person.

Neglecting to obtain Medical Advice.—An inquest was held last week, at Birmingham, on the body of a little girl aged three years, who died of bronchitis, from which she had been suffering for three or four weeks, but no medical aid had been procured. On the previous Saturday morning the mother became anxious, and took the child to several surgeries with the object of obtaining advice. She did not find any doctor at home, and in the evening she took the child out again, and it died in a surgery—the death, according to the medical evidence, having been caused by bronchitis, greatly aggravated by taking the child out. The coroner said he did not want to censure the mother, or reflect on her conduct in taking the child out when it was so ill. He should, however, like to emphasise the importance, now that the winter had come, of parents paying prompt attention, and securing medical aid for their children if they became unwell.

The Army Medical Department.—Our contemporary the *Pall-mall Gazette* observes—"The present state of the Army Medical Department deserves serious consideration. That Department has now been dragging on a starved existence for some years. It has, in fact, each year become more and more difficult to fill its depleted ranks. To go into the history of the causes which have led to this very unsatisfactory state of an important public service would be profitless; enough to say that it is well known, and generally admitted to be due to a variety of causes. The result is, that we have now to face the fact that it is impossible to attract intelligent and promising young men to the Army Medical Service except under altered conditions. At the present moment the Army Medical Department is incapable of supplying, from its own officers, enough medical men even to treat the soldiers in the dépôt stations. It is far below the peace establishment, and it has been necessary now for twelve months to suspend the examinations for entry of candidates, simply because candidates would not come forward. It is announced, this last week, that the Treasury has consented to new conditions of pay, but we have reason to fear that the confidence of the authorities in their power to attract eligible candidates is so shaken that they propose to take the disastrous step of abolishing the entrance examinations which test the quality of candidates."

A Self-supporting Workhouse.—The workhouse at Newcastle-on-Tyne would appear to be a model for similar institutions in respect to the utilisation of the productive power of its inmates by profitable employments on the premises, and the rendering the establishment self-supporting. Mr. Hewit, the master, has about 900 pauper inmates to provide for. There are seventeen acres of land belonging to the house, and in 1878 the whole of the vegetables required for the inmates were raised upon that land, besides £160 worth sold to the public. The produce for the present year is still better, and the master has sold cabbages from the ground at the rate of £40 the acre. No workhouse industry, says Mr. Hewit, is so remunerative as that connected with the land. He is of opinion that to make this work profitable every workhouse should have land attached, in the proportion of one rood for every inmate over ten years of age. With land, cows can be kept, and milk supplied for the children and aged poor. Advantages direct and contingent accrue from land culture. In the house various industrial occupations are carried on. A set of boys make all the boots and shoes required. Tailoring for the inmates is performed by another set of boys. Others are trained for tinsmith's, painter's, carpenter's, smith's, and cooper's work. The girls make the whole of their under-clothing, and it is intended that they shall make their own dresses. Kitchen work and cooking before being sent into domestic service are taught to girls old enough.

COMMUNICATIONS have been received from—

Dr. ED. I. SPARKS, Mentone; Dr. W. R. GOWERS, London; Mr. J. J. MECHI, Tiptree Hall, Essex; THE HONORARY SECRETARY OF THE METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION; Dr. WOLFE, Glasgow; THE CLERK TO THE HASTINGS SANITARY

AUTHORITY; PROFESSOR SPENCE, Edinburgh; Dr. CARTER, Liverpool; Dr. BALTHAZAR FOSTER, Birmingham; THE REGISTRAR OF THE SOCIETY OF APOTHECARIES, London; THE HONORARY SECRETARY OF THE SOCIETY OF MEDICAL OFFICERS OF HEALTH; Mr. F. COPELSTINE, Chester; Mr. CONSTABLE, Cambridge; Mr. N. CLEMENT LUCAS, London; Messrs. LONGMANS and Co., London; Mr. EDWARD BALFOUR, London; Surgeon-Major Dr. M. C. FURNELL, Madras; Dr. JOHN WILLIAMS, London; Mr. A. CLIFFORD ESKELL, London; Messrs. BRAND and Co., London; Mr. J. E. INGPEN, London; Mr. J. C. CORMACK, Liverpool; THE EDITOR OF THE "TEMPERANCE RECORD"; Mr. GEORGE BROWN, London; Mr. ALFRED MOONEY, Clonmel; Mr. CHARLES SPURWAY, Cheltenham; Mr. J. T. W. BACOT, Seaton, Devon; Dr. BLANDFORD, London; Dr. MAYOR, London; THE REGISTRAR-GENERAL, Edinburgh; THE OFFICIATING SANITARY COMMISSIONERS, Punjab; THE REGISTRAR OF THE UNIVERSITY OF LONDON; THE EDITOR OF "IRON"; THE MEDICO-PSYCHOLOGICAL ASSOCIATION, London; Mr. HOWARD MARSH, London; Dr. TAYLOR, London; Mr. A. NORTON, London; Mr. J. CHATTO, London; Mr. T. M. STONE, London.

BOOKS AND PAMPHLETS RECEIVED—

Monthly Report of the Health and Meteorology of the Parish of St. Mary-lebone—The Carmichael Prize Essay, by Thomas Laffan—The Carmichael Prize Essay, by Walter Rivington—Vorles ungen über Neuere Behandlungswesen der Syphilis, von Carl Sigmund—Monthly Meetings, Nos. 3 and 5, by Mr. J. C. Lisboa—The Education of Girls, by Nathan Allen, M.D., LL.D.—Health Report of the Borough of Birmingham—Memorial Oration in honour of Ephraim McDowell—The Treatment of Fits, by J. H. Waters, K.C.St.G.C.—On the Balance of Pressure within the Skull, by James Cattie, M.D.—The Treatment of Fracture of the Lower End of the Radius, by R. J. Levis, M.D.—Graham's Temperance Guide and Diary—Die Tuberkulose vom Standpunkte der Infectionslehre, von Julius Cohnheim—Etude sur l'ictère Grave, par le Docteur A. Mossé—Registrar-General of Edinburgh's Quarterly Return of Births, Deaths, and Marriages—The Artificial Eye, by Dr. E. Landolt—Medical Hints to the People of India, by Edward Balfour, L.R.C.S.B.—Clinical Society's Transactions, vol. xii.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Louisville Medical News—Nature—El Siglo Médico—Révue Médicale—Boston Medical and Surgical Journal—Revue d'Hygiène—Extracts from the Examiner—Boston Journal of Chemistry—The Medical News and Library—Canada Lancet—Imports and Exports—Day and Night.

APPOINTMENTS FOR THE WEEK.

November 22. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

24. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. Lownds, "On Unusual Respiration in a Case of Dilated Aorta." Dr. Andrew Clark, "On Renal Inadequacy."

25. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Mr. James F. West (of Birmingham), "On Trephining for Traumatic Epilepsy." Mr. Henry Morris, "On Two Cases of Carcinoma of the Breast preceded by so-called Eczema of the Nipple and Areola."

26. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

HUNTERIAN SOCIETY (London Institution), 8 p.m. Mr. Rivington, "On Some Cases of Aneurism." Dr. Stephen Mackenzie, "On Tumours of the Cerebellum."

27. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

28. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

CLINICAL SOCIETY, 8½ p.m. Mr. W. J. Tyson (Folkestone), "On a Case of Traumatic Aneurism of the Scalp." Mr. Croft, "On a Case of Excision of both Hip-Joints for Symmetrical Femoral Necrosis; Operations Antiseptic; Result Successful." Dr. Goodhart, "On a Case of Rheumatism treated by Salicylate of Soda, and terminating Fatally."

QUEKETT MICROSCOPICAL CLUB (University College), 8 p.m. Dr. T. Spencer Cobbold, "On the Fertilisation of certain Flowering Plants."

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 15, 1879.

BIRTHS.

Births of Boys, 1274; Girls, 1270; Total, 2544.
Average of 10 corresponding years 1869-78, 2372.8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	826	783	1609
Average of the ten years 1869-78 ...	819.6	813.1	1632.7
Average corrected to increased population ...	...	...	1747
Deaths of people aged 80 and upwards ...	...	...	46

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

		Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West ...	...	561359	...	11	18	1	5	...	2	1	5
North ...	...	751729	...	9	26	3	6	...	4	...	5
Central ...	...	334369	...	6	13	1	4	...	3	...	3
East ...	...	639111	...	20	23	3	16	...	4	...	5
South...	...	967692	...	17	33	6	13	1	3	2	6
Total ...	...	3254260	...	63	113	14	44	1	16	3	23

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	30.022 in.
Mean temperature ...	...	...	...	...	...	40.3°
Highest point of thermometer ...	...	...	...	...	...	50.4°
Lowest point of thermometer ...	...	...	...	...	...	23.1°
Mean dew-point temperature ...	...	...	...	...	...	34.1°
General direction of wind ...	...	...	...	...	...	Variable.
Whole amount of rain in the week ...	...	...	...	...	...	0.02 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Nov. 15, in the following large Towns:—

	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Nov. 15.	Deaths Registered during the week ending Nov. 15.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		In Inches.	In centimetres.
Boroughs, etc. (Municipal boundaries for all except London.)										
London ...	3620868	48.0	2544	1609	50.4	23.1	40.3	4.61	0.02	0.05
Brighton ...	105608	44.9	72	38	52.5	28.2	40.8	4.89	0.00	0.00
Portsmouth ...	131821	29.4	71	58	52.5	31.5	43.1	6.17	0.00	0.00
Norwich ...	85222	11.4	41	35	50.0	30.0	40.3	4.61	0.22	0.56
Plymouth ...	74293	53.3	42	26	56.0	30.8	44.3	6.84	0.09	0.23
Bristol ...	209947	47.2	146	81	...	...	...	...	...	...
Wolverhampton ...	75100	22.1	51	30	49.2	21.5	38.2	3.44	0.09	0.23
Birmingham ...	388884	46.3	312	140	...	...	...	...	...	...
Leicester ...	125622	39.3	94	63	50.0	22.0	38.3	3.50	0.03	0.20
Nottingham ...	169398	17.0	132	78	50.9	18.0	38.9	3.83	0.08	0.20
Liverpool ...	383338	103.3	414	270	...	...	...	...	...	...
Manchester ...	361819	84.3	244	142	...	...	...	...	...	...
Salford ...	177849	34.4	120	78	...	...	...	...	...	...
Oldham ...	111318	23.9	80	46	...	...	...	...	...	...
Bradford ...	191046	26.5	91	65	51.0	26.1	40.0	4.44	0.40	1.02
Leeds ...	311860	14.5	207	153	52.0	26.0	40.5	4.72	0.22	0.56
Sheffield ...	297138	15.1	178	127	51.0	24.0	39.7	4.28	0.03	0.08
Hull ...	146347	40.3	94	77	50.0	29.0	38.5	3.61	0.00	0.00
Sunderland ...	114575	41.4	80	37	52.0	32.0	41.4	5.22	0.24	0.61
Newcastle-on-Tyne ...	146948	27.4	101	67	...	...	...	...	...	...
Edinburgh ...	226075	53.9	133	83	53.2	24.6	39.0	3.89	1.02	2.59
Glasgow ...	578158	95.8	324	215	51.8	28.0	40.7	4.83	1.04	2.64
Dublin ...	314666	31.3	156	182	53.8	26.3	41.4	5.22	0.59	1.50
Total of 23 Towns in United Kingdom	8502896	33.6	5727	3700	56.0	18.0	40.3	4.61	0.23	6.06

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30.02 in. The highest reading was 30.35 in. at the beginning of the week, and the lowest 29.63 in. on Tuesday evening.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON RUPTURE OF THE BLADDER AND ITS TREATMENT.

By HENRY MORRIS, M.A., M.B.,

Surgeon to, and Lecturer on Anatomy at, the Middlesex Hospital.

GENTLEMEN,—On Friday, June 6, 1879, William H., aged thirty-nine, a spare man, of middle height, was admitted into Broderip ward under my charge. Many of you saw him soon after his admission, when he was in a condition of much danger. He has returned to-day, as requested, and will tell you that he is now quite well. The following report is abridged from the notes taken by Mr. Harratt, the dresser:—

The patient is an upholsterer by trade. On Wednesday evening, June 4, he was drinking at a public-house, when some difference arose between him and another man, which they thought they ought to settle by wrestling. The patient was thrown with much force, and whilst lying with his back on the ground his opponent knelt with both knees upon the lower part of his abdomen. William H. seems to have lost consciousness for a little time, but on "coming to" he with much difficulty walked home and went to bed, taking over an hour to do the distance, which is about one mile. He tried several times to pass water, and could not; but within an hour or two after getting into bed he voided a small quantity of blood. He was visited by a doctor twice during the night and the next day, who ordered hot fomentations to the abdomen, and effervescing draughts to check sickness, and recommended his removal to the hospital. The patient stated that prior to the injury he had not passed water for "an hour or two," and that he had been drinking up to the moment of wrestling. He also said that during the thirty-six hours between the accident and his admission into the hospital he had "certainly not passed more than three-quarters of a pint of blood and urine together"; that he had made several efforts before he voided anything at all, that which first passed being like pure blood, but that which was passed at subsequent attempts became less and less blood-charged, and more and more like natural urine. He began to suffer intense pain in the hypogastrium immediately after his belly had been kneaded, but as the hours wore on, the pain, though it never left the lower part of the abdomen, "got higher and higher up his stomach"; and he added that he had vomited frequently, bringing up a quantity of greenish fluid, and had also had a good deal of hiccup.

On admission his face looked pale, sunken, and anxious; his skin was covered with cold perspiration; his abdomen was tympanitic, distended, and extremely tender, the slightest pressure causing him to wince and cry out; the most acute tenderness seemed to be at a small umbilical hernia and just over the symphysis pubis. Nothing abnormal could be felt per anum. He had micturated voluntarily, but with great pain and difficulty. A No. 7 silver catheter was introduced with ease into the bladder, and between three and four ounces of clear, normal-looking urine were withdrawn. After the urine ceased to flow a very slight pressure made with the finger-tips upon the hypogastric wall caused a spasm, whereby four or five small soft black bodies, the size of melon-seeds, were expelled through the catheter; these proved to be blood-clots. The point of the catheter was then moved over the inner surface of the contracted bladder in search of a rent in its walls, but no indication of such was detected. The patient was frequently vomiting a bright green bilious fluid. Pulse 120, soft and compressible, and fairly full. Respirations shallow, but of normal frequency. Tongue moist. Ordered hot fomentations to the abdomen; half a grain of powdered opium in a pill every six hours if awake; to take no fluid and as little solid food as possible, and to quench his thirst by sucking a small quantity of ice. A gum-elastic catheter, with india-rubber tubing attached, was fixed in the bladder, so that the urine might flow off into a vessel beside the bed.

June 6.—*Vespere*: Temperature 100°; pulse 108. Patient has ceased vomiting since 6 p.m. Has hiccup badly. Abdomen less tender. Has eaten one slice of bread and butter, and

not vomited after it. Took one piece at 3.30 p.m. and another at 11 p.m.

7th.—Temperature 101.6°; pulse 120. Was sick once in the night, the vomit being bilious. Two pints and a half of clear yellow urine have flowed off through the catheter. Abdomen less tender, but pressure over hypogastric region produced vomiting. Had another pill at 3 a.m. *Vespere*: Temperature 101.8°; pulse 116. Vomited after the bread and butter to-day.

8th.—Temperature 99°; pulse 90. Tongue moist and clean. Abdomen distended and tympanitic, but less tender. No sickness to-day after food. Catheter still in; one pint and a half of urine has been passed. Ordered four ounces of brandy daily.

9th.—Temperature 101°; pulse 98. Complains of a good deal of pain in hypogastrium. Catheter removed, washed, and re-introduced. The point was covered with what appeared to be pus. Bowels opened twice during the day; motions soft and clay-coloured. No more sickness. *Vespere*: Temperature 100.4°; pulse 100. No further change.

10th.—Still much, sometimes very acute, pain in hypogastric region; to-day, moreover, there is considerable thickening and hardness above the symphysis pubis as high as half-way to the umbilicus, but extending further to the right than to the left of the median line. The abdomen is somewhat less distended, and, except in the hypogastrium, less tender. Bowels open once this morning, the stools being less loose than yesterday. Catheter to be removed daily and washed out.

11th.—Temperature 100°; pulse 104. Complains of griping pains in hypogastrium and in the course of the ascending and descending colon, which last a minute or two and then pass off. Abdomen more swollen and tense.

13th.—Temperature 99.6°; pulse 72. Complains of more pain to-day in hypogastrium; the tenderness in this region is more considerable than it has been during the last few days, but the induration is somewhat less. There is a free thick white discharge by the side of the catheter, and no urine is flowing through the catheter. On removing the catheter it was found plugged with muco-pus. No. 10 catheter was introduced, and about three ounces of clear urine drawn off. Ordered to continue the pills and hot fomentations. The bladder is to be washed out with warm water containing a few drops of a mixture of eight grains of thymol in two ounces of glycerine.

14th.—The patient complained of so much increase of pain in the hypogastrium after the injection that it is not to be repeated; it was only used once. He passed this morning a stool consisting only of opaque, gelatinous matter like the white of egg, which, on boiling with liquor potassæ, became quite clear. Urine contains pus; specific gravity 1015.

16th.—Bowels open slightly this morning, the action being attended with much pain. Examined per rectum: no induration or thickening about the bowel, which is full of soft yellow solid faeces. Up to yesterday the urine had been pretty clear, but on re-introducing the catheter this morning a quantity of thick, dirty-looking pus first passed, and then the urine flowed pretty clear. On removing the catheter the end which had been retained in the bladder was seen to be darkly discoloured. The tenderness and induration in the hypogastrium are less pronounced. Feels very low and hungry. Ordered a simple enema, and a mixture containing chloric ether, spirits of ammonia, and tincture of calumba; still continuing the pills and the hot fomentations. Is to have chicken for dinner to-morrow. The catheter is no longer to be fixed in the bladder, but to be introduced two or three times daily if patient cannot micturate without it. *Vespere*: Temperature 101.6°; pulse 96. Bowels acted freely after the enema. Stools normal. Passed urine voluntarily after a little straining. The urine was thick and opaque, being largely charged with pus, and became very ammoniacal on standing.

From this time the notes show an almost uninterrupted progress towards recovery. The catheter was not again required. The amount of pus in the urine, which for several days was large, gradually diminished. The induration behind the hypogastric wall gradually cleared away, and the pain, distension, and tenderness of the abdomen ceased.

On June 26 the urine was acid, and contained neither blood, pus, nor albumen, though there was a slight deposit of mucus. On June 30 he was allowed to get up, and the

next day to go into the hospital garden. On July 2 there was a slight reappearance of pus, but on the 9th this had again quite disappeared, and the urine was acid, specific gravity 1015, and free from albumen, but contained a slight excess of phosphates. Ordered one-grain doses of quinine, three times a day, in place of the mixture containing bicarbonate of potash, tincture of hyoscyamus, mucilage, and infusion of calumba, which he had taken since June 20.

On July 10 the patient left the hospital, quite well, but weak.

Remarks.—What was the nature of the injury which had happened to this man? In my own opinion and in that of my colleagues and others who saw him there was no reason to doubt that the lesion was one of rupture of the bladder. It may be said that the existence of such an injury, unless the rent be actually seen, is a matter of inference rather than of absolute knowledge; and so difficult is the diagnosis considered by some to be, that nothing short of an examination after death is sufficient to remove their scepticism with regard to any particular case.

But if we look to the various works on Surgery we find a fairly uniform accounts of the symptoms, prefaced by some such remark as—(a) "The symptoms of a ruptured bladder are sufficiently evident"; or, (b) "The symptoms of rupture of the bladder, when uncomplicated by fracture, are generally quite unmistakable"; or, (c) "The injury usually reveals itself by well-marked symptoms, both general and local."

Now, here was a man who had been violently hurt in the hypogastrium whilst his bladder was moderately, if not more than moderately, distended. He had been drinking freely, so that the normal tension of the abdominal wall was relaxed (the muscles were off their guard, so to speak), and that part of the bladder which is in relation to the front of the abdomen consequently all the more exposed to the violence. The injury was followed immediately by collapse, pain in the hypogastrium, and by several fruitless efforts to micturate. After a little while vomiting and hiccup set in, and the abdomen became distended. At length, after several hours, first a little blood, and then some blood-stained urine were voided, but with great difficulty; while the pain in the abdomen became more widely diffused and the distension increased. Added to all this it must be borne in mind that only three-quarters of a pint of urine and blood was discharged from the bladder in the first thirty-six hours after the injury; and that when a catheter was introduced, which was done without difficulty, less than four ounces of urine were withdrawn.

All surgical writers are agreed that these are the leading symptoms to which rupture of the bladder has given rise; and as, unfortunately, the opportunity of verifying the diagnosis has been afforded in nearly all cases by the death of the patient, the inference based upon such symptoms in any given case amounts well-nigh to absolute certainty. Further in support of the inference in the present case is the fact that within four days after the injury there was well-marked thickening of the tissues in front of the bladder, and that within six days there was a free discharge of pus from the bladder. All this indicates that the inflammatory process which was taking place outside the bladder, as evidenced by the thickening felt through the abdominal walls, had gone on to suppuration, and that pus was being poured through the rent into the cavity of the bladder.

The next thing to determine was the situation of the rent, because both treatment and prognosis depend to a certain degree upon this. Was it extra- or intra-peritoneal? Or, in other words, was it in front of, behind, at the fundus, or at the neck of the bladder? Rupture at the fundus, or at the posterior wall (unless quite low down), if complete, must necessarily extend through the peritoneum; in the other situations the peritoneum is usually uninjured, though it may be, and often has been, involved.

According to the well-known figures of Dr. Stephen Smith, the posterior wall suffered in fifty out of sixty-five cases, in which the situation of the rent was noted, from which it would seem that the chances are more than three to one that the peritoneum will be injured. This proportion is probably higher than a larger number of cases will support. Thus, from 166 cases collected by Dr. Max Bartels, (d) the

summary notes of which have been translated by Mr. Lyell, I make out the following to have been the results:—

Intra-peritoneal, total, 98; 94 deaths, and 4 recoveries.

Extra-peritoneal, total, 54; 42 deaths, and 12 recoveries.

State of peritoneum not mentioned, total, 14; 13 deaths, and 1 recovery.

In 84 of the intra-peritoneal cases the rupture was situated as follows:—40 at the fundus, 9 in front near the fundus, 33 posteriorly, and 2 at the side.

In 15 cases the rupture was associated with fracture of the pelvis.

In 50 of the extra-peritoneal cases the rupture was situated:—19 at the neck, 23 anteriorly, 2 behind, and 6 at the side.

In 19 instances the rupture was complicated with fracture of the pelvis; in 8 of which splinters of bone penetrated the bladder, and were either voided with the urine or removed by lithotomy.

In 6 of the doubtful cases the pelvis was also fractured, and in 2 of the 6 a splinter penetrated the bladder.

It appears evident that when the peritoneum is injured, the fundus or posterior wall, or both, are nearly always the seat of rupture; sometimes the anterior wall and the fundus are involved. When the peritoneum escapes, the neck or anterior wall is the part of the bladder which suffers. This is exactly what would be expected from the anatomical relations of the peritoneum.

If the wound be entirely extra-peritoneal, the urine will escape into the cellular tissue of the pelvis, and pelvic cellulitis and possibly pelvic abscess will arise.

If intra-peritoneal, the urine will escape into the cavity of the abdomen, and general peritonitis will most probably occur. Extravasation of urine into the peritoneal cavity is not necessarily fatal. The injurious effects which follow from extravasation of urine in cases of stricture of the urethra have not always been excited by the escape of healthy urine from a torn bladder, because healthy urine has not the same irritating properties as decomposing urine. The absence of peritonitis when urine has been for some time in the abdominal cavity was proved by the post-mortem examination of the following case which came under my notice in 1870:—

Charles A., aged sixty-four, fell downstairs, and afterwards was unable to pass any urine. The next day he applied for surgical assistance; the catheter was used, and some blood-coloured fluid was drawn off. The catheter was not left in the bladder, but was passed every eight hours up to the time of the man's death. He died on the third day after the injury.

I made the post-mortem examination on a warm, dry day in April, sixteen hours after death. Body of large frame, stout, thick-set. Abdominal walls fatty. Great lividity of thighs, and generally of depending parts. There was not a trace of peritonitis, but the cavity of the abdomen contained about two pints of brownish-yellow, blood-stained urine. A small patch of ecchymosis was noticed on the part of the intestine lying near the site of injury. The kidneys were large and fatty. The pericardium and heart were covered with a thick layer of fat.

The walls of the bladder were uniformly thin, soft, and very lacerable. On the right side posteriorly there was a large opening, sufficient to admit a good-sized hen's egg. The outer margin of this opening was irregular and thickened; and hanging loosely over the opening was a flap of peritoneum, the edges of which looked as if they had been more recently torn. The rent in the peritoneum was continued upwards as far as the outer margin of the right rectus abdominis. At this part of the rupture the peritoneum was separated from the sub-peritoneal fat on either side of the rent for an inch in extent. Below and behind the lower extremity of the opening into the bladder the peritoneum was torn for half an inch. Still further down the serous membrane was thin and stretched. From the inner surface of the bladder the rent was seen to have its long axis from below upwards and toward the right side.

It appeared that the rupture of the bladder-wall had not been complete in the first instance, but that the mucous and muscular coats only had given away, and that the peritoneum had been detached by sub-peritoneal extravasation before it yielded, so as to allow of the escape of the urine into the peritoneal cavity. Whether this was so or not, blood-stained urine was, at the time of death at any rate, found in the

(a) Erichsen (b) Holmes. (c) Gross.

(d) Dr. Max Bartels enumerates 169, but three of these are duplicates.

cavity, and yet no inflammation of the serous membrane had been excited.

The ease with which the peritoneum can in some cases be peeled away from the subjacent tissue is well known, and explains the occasional occurrence of one form of the reduction *en bloc* of hernia. It also accounts for those large sub-peritoneal and retro-peritoneal abscesses and accumulations of urine, the results of extravasation, which have been described in several of the reported cases of rupture of the bladder.

The question whether the peritoneum has or has not suffered is difficult to answer from an examination of the symptoms. It may, however, be safely conjectured that the peritoneum is torn, if within twenty-four or thirty-six hours after the injury the abdomen becomes very tense; if the bladder can neither retain nor expel its contents; if a catheter on entering the bladder and drawing off a little clear urine can be passed further on and then draws off bloody urine, which ebbs and flows as the patient breathes; and if when warm water is injected through the catheter it is felt by the patient in his groins and abdomen. It is true that in some rare cases the peritoneum has been lacerated and yet the bladder has preserved some power of expelling and retaining urine. This is no doubt due to one of two causes—either the wound in the bladder is high up in the organ, or at least above the level at which the ureters open into it; or the mucous membrane overlaps the opening in the other coats of the bladder sufficiently to shut off the cavity of the bladder from that of the peritoneum.

In our patient, W. H., there is no doubt the wound was in the front wall of the bladder chiefly, though perhaps not entirely extra-peritoneal, and being high up in the organ but little urine escaped through the rent, while the bladder preserved some of its power of retaining and expelling urine. A limited amount of inflammation and suppuration was excited around the edges of the wound, whereby the opening in the bladder was ultimately closed.

The prognosis of ruptured bladder is most unfavourable, still it is not necessarily fatal. Several cases of recovery have been recorded, and although it is true that in the majority of these the rent was extra-peritoneal, yet some high authorities support the opinion that the peritoneum tolerates the presence of healthy urine, and even think it not improbable that urine may be absorbed after its escape into the peritoneal cavity.

In Dr. Max Bartels' list there are seventeen recoveries out of 166 cases, and if we add the two cases above described and a case recently recorded by Mr. C. Heath we have eighteen recoveries out of 169 cases. This is a most gloomy picture, it is true; still it suffices to give us some encouragement in the management of these accidents. In the most favourable case, a fortnight or more must elapse, even if all goes well, before we are justified in encouraging our patient, or the patient's friends, in thinking that all danger is passed. Although the injury has been almost immediately fatal in some few instances—the patient dying within half an hour, and in a larger number within forty-eight hours—yet in others death has been postponed until the fourteenth, fifteenth, eighteenth, twenty-fifth, and even the thirty-second day. In the majority of cases death takes place in from two to eight days. In those instances which do not terminate within a fortnight, death is usually preceded by suppuration or sloughing of the perivesical cellular tissue. In some cases in which a sub- or retro-peritoneal cavity has been formed, the cavity has been tapped or cut into, and death for a time averted by the evacuation of the urinous and purulent contents; in other such cases the peritoneum has given way, the pent-up fluid has escaped into the abdomen, and fatal peritonitis has been thus set up.

The question of treatment is most important. At a recent meeting of the Medico-Chirurgical Society a discussion was raised on a case of rupture of the bladder brought forward by Mr. Christopher Heath. The advisability of opening the abdomen so as to sponge out the abdominal cavity and free it of all extravasated urine, and then to close the rent in the bladder by means of sutures, was considered. This plan has been adopted by Walter of Pittsburg, by Mr. Willett at St. Bartholomew's Hospital, and by Mr. Heath at University College Hospital, but only Walter's patient recovered. Another operation, suggested and successfully put into practice by W. J. Walker of Boston, and afterwards by Dr.

Erskine Mason, is cystotomy, whereby a free vent for the urine in a depending position is established. Each of these operations is very serious; and neither ought, in my opinion, to be undertaken, except with a feeling of the greatest certainty as to the nature of the accident, and of the uselessness of all less formidable modes of treatment. Moreover, to my thinking, these are not alternative operations; each is not suitable in the same case, and neither would be anything but harmful in most. For instance, in the case now referred to, if I am right in supposing that the rent was at the front and upper part of the bladder chiefly, though not entirely extra-peritoneal, and that the amount of urine extravasated was small, what would have been the use of abdominal section or cystotomy? The wound in the bladder could not have been reached through the abdomen without doing the very thing which increases the mortality of the accident—viz., making the peritoneal cavity communicate with the wound in the bladder, or extending such communication if it exist. Nor would the urine extravasated at the fundus of the bladder have escaped through the opening in the perineum if cystotomy had been performed, while that operation was not required to prevent further extravasation than had occurred at the time of the accident.

If the wound be in the lower part of the bladder, and the urine is extravasated into the cellular tissue between the bladder and rectum, cystotomy would, I think, be a very proper operation, whether the rent in the bladder extended or not through the peritoneum; but if the rent be in the back of the bladder, above the reflection of the peritoneum, cystotomy would complicate without improving matters. It is in these latter cases, if in any, that abdominal section should be practised, but the operation holds out no hope of success, that I can see, beyond what is afforded by milder treatment. I should prefer to content myself by drawing off from the peritoneal cavity the extravasated urine by means of a long catheter passed through the rent in the bladder, and afterwards washing out the abdominal cavity by injecting warm water. A catheter should be retained just within the neck of the bladder, so as to prevent any accumulation of urine, and the patient should be kept as quiet as possible under the influence of opium given in small doses; only the smallest possible amount of food or fluid should be introduced into the stomach, and sickness and thirst should be allayed by a little ice to suck. Unless the rent in the peritoneum is very low down, the abdominal cavity, having been once cleared of urine in the manner suggested, or by the aspirator (as was successfully done in a case reported by Dr. Macdougall of Carlisle), may be kept free from fresh extravasation by the retention of the catheter in the bladder.

If, on the other hand, the rent be low down, on a level with or below the openings of the ureters, and the perineum be ruptured as well, then urine will continue to escape into the peritoneal cavity in spite of the presence of a catheter, unless the lax mucous membrane acts like a valve to close the aperture in the other coats of the bladder. Neither abdominal section nor cystotomy would be successful in preventing fresh extravasation. Cystotomy would only make another opening (and one probably less free than the rent) for the escape of urine, below the orifices of the ureters; while the physical difficulties to completely closing the wound in the bladder when its position is very low down are, as they were proved to be in two cases in which the attempt has been made, very great, because the bladder cannot be drawn up sufficiently far for stitches to be introduced effectively at the lowest part of the wound.

I advise you, then, if you have to treat a patient who is suffering from a rupture of the bladder, to content yourselves with the milder measures I have recommended, and on no account to resort to either of the operations—abdominal section or cystotomy—unless you have reason for thinking, from the presence of tumefaction about the rectum, or some other condition, that the rent is low down or near the neck of the bladder, in which case I consider cystotomy would be indicated.

TREATMENT OF HEMORRHOIDS.—Dr. Sabal recommends the following ointment:—Iodoform 3j., powder very fine in a mortar, and add powdered opium gr. xv., vaseline pomade (or cosmoline) 3j. Apply night and morning, and after every action of the bowels, first washing the parts.—*Phil. Med. Times*, November 11.

ORIGINAL COMMUNICATIONS.

ON THE TEMPERATURE IN RELAPSE OF TYPHOID FEVER.

By J. PEARSON IRVINE, B.Sc., M.D., F.R.C.P. Lond.,
Assistant-Physician to Charing-cross Hospital, etc.

(Continued from page 420.)

It would be easy to add other cases of typhoid relapse to the series given, but perhaps sufficient have been recorded to illustrate the value of the thermometer, and to prove how various may be the conditions setting in after the termination of primary typhoid, and yet how possible it is to determine their nature, at least within certain limits. The more exact and practical our knowledge of these becomes, the more probable is it that they will be gradually circumscribed and reduced to fewer headings. The similarity which runs through many of the cases given is not more remarkable or more instructive than the varieties met with. The great majority of the charts shows that there is a typical standard as regards typhoid-relapse, to which all favourable cases closely—and the worst cases more or less—approximate, and that deviations from this standard throughout, or at particular times, are most valuable in clinical significance.

Instances have been given of—

1. Single relapse,
2. Double relapse,
3. Triple relapse,
4. Quadruple relapse,
5. Relapses complicated by pneumonia, peritonitis, etc.
6. Intercurrent relapses.
7. Dangerous relapses (in which the temperature deviated, apart from complications).
8. Recrudescence pure and simple.
9. Recrudescences associated with, or modifying, true relapses.
10. Doubtful cases—of primary disease, relapse, recrudescence, or of diseases simulating enteric fever.

Thirty-one patients have furnished these examples, which include at least forty-six cases of relapse. I propose to give only a general analysis of the cases, believing that my statistics are too few and indefinite for the determination of minute questions. Many of the points raised in these papers have not been touched upon by previous writers, and I feel considerable difficulty in dealing with them. I venture to think, however, that a careful use of the thermometer and a careful examination of its records will be an all-powerful means of clearing up difficulties, not only in typhoid-relapse, but in primary typhoid. A variety of questions is suggested by the cases recorded, and many of these questions are by no means easy to answer. The many aspects the cases presented are briefly summarised above, and these must show the difficulties alluded to. Relapses, complications, and recrudescences in typhoid fever have received no special study, as far as I know, and one must therefore approach their consideration with modesty and caution. Any array of figures from a single observer is never unattended by danger, and I hesitate to urge on the profession compilations which depend on the cases reported above.

We are bound to admit that relapse in typhoid fever is far more common than is usually supposed. Relapses are constantly confounded with accidental complications, and their true nature, in consequence, is continually misunderstood. I do not hesitate to say that in hospital practice such misunderstanding arises; and if this view be correct, can one be surprised that, in the extraordinary difficulties of outside practice, oversights are exceedingly common? In private practice the medical man is frequently constrained to give an opinion under the most difficult circumstances, and there would be cause for wonder if mistakes were not frequently made. Primary typhoid is most difficult of diagnosis from many diseases; and relapse following an obscure illness, for whose particulars we have to depend entirely on the history given by the patient, must necessarily be over and over again confounded with other diseases. The "typical" evidences of typhoid are not always forthcoming, either in primary attacks or in relapse; and I am on this account more bold in submitting to the consideration of physicians

the charts of temperature which have been published in this journal.

It is of importance, clinically and pathologically, to determine the probable duration of the apyrexial interval between primary attacks of typhoid and relapses. In twenty-nine of the relapses recorded above, out of a total of forty-six, this interval could be determined with complete accuracy. In seventeen cases of the forty-six the patients were first observed during relapse, or the onset of relapse was modified by accidental complications or by so-called recrudescences, and in consequence they are not admitted to determine the average of intervals. These cases, however, have a special value, for they confirm what more regular cases teach: that at the apparent termination of a distinct febrile attack, whether it be primary or whether it be a relapse, care should be taken in the diet of the patient, not because mistakes excite relapse, but because, if relapse occurs, they may aggravate its severity.

The twenty-nine relapses mentioned were divided amongst twenty-three patients, three of whom had each three relapses. The average duration of the interval was a fraction over five days; in three instances the duration was ten days, and in four there was no appreciable interval, at least, no interval extending over twenty-four hours. It would be useless to give an array of figures compiled from the cases quoted, but as the average interval of five days is scarcely half that met with by Dr. Murchison, I am bound to attempt an explanation of this great contrast. Dr. Murchison found that the average duration of the interval between relapse and primary typhoid was eleven days, and he took his average from fifty-three observations. But he does not state whether he is dealing with simple uncomplicated relapses, with complicated relapses, or with recrudescences, which materially alter the duration of the so-called interval. It strikes me that numerous conditions may lead to strange variations of the apyrexial interval, and though I shall attempt a discussion of some of these later on, I feel, the more I study the temperatures following primary typhoid, the difficulties which surround an inquiry into them. There seems to be no certainty in regard to the interval, and this very fact warns the physician to be continually on his guard. I might quote the three instances in each of which three relapses occurred. In these cases the intervals were (the figures meaning days)—

Case I.	.	.	3	.	0	.	6
„ II.	.	.	10	.	3	.	9
„ III.	.	.	10	.	7	.	8

and such cases show quite clearly the fallacy of statistics, especially when they are taken with the whole of the cases which I have reported.

But our uncertain knowledge as to intervals between typhoid attacks and its relapses only increases our anxiety, and teaches us to watch such intervals with growing care. No definite rule can be laid down even in cases where there is (as far as we can determine) complete freedom from complications. It has been asserted by writers of eminence that typhoid-relapse never occurs without a clear apyrexial interval between it and the primary disease. With this view I cannot coincide, for in four of the twenty-nine intervals observed in hospital, the abeyance of fever was less than twenty-four hours—an abeyance which occurs over and over again during an ordinary typhoid attack. I think I am not wrong in stating that Dr. Murchison gave his authority to this view, and I submit a consideration of my cases with all deference. The intercurrent attacks are proof positive that a clear apyrexial interval may be wanting in typhoid relapse, and the occurrence of intercurrent attacks is admitted by all clinicians. Many continental physicians believe that relapse of typhoid may set in, not only days or weeks after the termination of the primary disease, but even months afterwards. But I cannot agree with such views, and am convinced that in many of these cases of deferred relapse a careful daily observation of the temperature would have shown that the patients were the victims of repeated relapses—possibly exceedingly mild, but still determinable by the thermometer,—and that the sharp fever of a final relapse was really the third or fourth in a series of relapses. The possibility of numerous relapses in typhoid fever has been passed by, and in consequence the occurrence of a first relapse months after the termination of the primary disease has been insisted upon. I feel bound to say that in reading the literature of the subject of relapses in typhoid, I have

not been able to ascertain that the writers sufficiently appreciated the possibility of repeated relapses either with or without complications, and I would ask attention again to some of my examples, and especially to Case 15, where three relapses were met with—each separated from its fellow by distinct apyrexial intervals, and each following a typical course. In this case complications were absent, and the disease, so to speak, ran its own course.

The temperature during the interval between typhoid fever and its relapses is well worthy of consideration. The so-called intervals may be long or short—they vary immensely—but a daily interpretation of the thermometric levels in these intervals is of the utmost importance. In almost all the cases of uncomplicated typhoid the temperature was during the “intervals” normal both morning, noon, and night, and oftentimes subnormal—below 98° Fahr. This is a valuable clinical fact, because most of the acute specific diseases end in subnormal temperatures, and any unexpected rises, which cannot be explained, should guard us against the contingency of relapse. The irregular elevations of temperature during some “intervals” I shall dwell upon afterwards. I am convinced that the proper study of the “interval-temperature” is of the utmost practical value, and it is for this reason that I have written upon it at considerable length. An examination of the doubtful interval periods will afford additional proof of the therapeutic value of studying carefully the temperature during the days following an attack of typhoid fever.

The subject of intercurrent relapses is best postponed to later stages of this paper; and it seems wise here to consider some others of the broader questions touching typhoid-relapse. Is a patient who has suffered from one relapse likely to have a second relapse? Does relapse in fact predispose to relapse; and does the apyrexia, which follows relapse, demand even more attention than that following primary typhoid fever? Liebermeister has considered these questions; and, relying on a large number of observations at Basle, he positively states that relapse does not predispose to relapse. I am not in a position to refute or affirm Liebermeister's views, for the more I study the cases I have given, the more certain I become of the possibility of fallacies in regard to statistics. No hard and fast line shall be drawn in these papers; and I refuse to be bound down, in our present state of knowledge, by a series of figures which attempts to reduce the study of disease to mathematical certainties. In many continental schools such attempts are most boldly ventured upon; and though we may disagree with both arguments and conclusions, we must benefit by anything which forces us to take an all-round view of disease, be it typhoid fever, relapse of typhoid fever, or any other disease.

Speaking generally, I would say that if a patient suffers one relapse, a second relapse should be looked for and guarded against. Of thirty-one patients in my series, ten had a first relapse, and at least five had a third relapse, while in one case a fourth relapse occurred.

(To be continued.)

CASE OF OVARIOTOMY—RECOVERY FROM THE OPERATION—OTITIS—DEATH.

By GEO. GRANVILLE BANTOCK, M.D., F.R.C.S. Ed.,
Surgeon to the Samaritan Free Hospital for Women and Children.

E. W., aged forty-nine, single, was sent to me by Dr. Donald Stewart, of Nottingham, and was admitted into the Samaritan Hospital on June 13, 1879. She dated her first symptoms three years back, but had not sought advice till February last, when she consulted Dr. Stewart. She looked older than her age, was rather stout, and of what would be called the strumous diathesis. Her family history was that an aunt (maternal) died from the effects of a tumour, which was tapped several times. Her mother died of “acute inflammation of the ear.” My diagnosis was as follows, viz.:—“Multilocular ovarian tumour; close connexion with the uterus.”

Ovariectomy was performed with antiseptic precautions (phenol) on June 18, in the presence of Dr. Stewart, Dr. Sasell, of Constantinople, and others. Chloroform was administered by Mr. Moredith, and I was assisted by Mr.

Doran. On dividing the parietes by an incision about four inches long, through about one inch and a half of fat, about a pint of very dark fluid escaped from the peritoneal cavity. The peritoneum, especially below the level of the umbilicus and in the pelvis, was deeply stained a dark colour. The trocar gave exit to a dark, almost black, grumous fluid. The tumour was then broken up and extracted, bringing into view a very short thick pedicle, springing from the right side. With some difficulty a double-threaded needle was passed through, the two loops were tied, and the tumour cut away. A vessel in the uterine end of the stump bled freely. I then encircled the whole with one of the threads, and both were cut off short. After sponging I felt for the other ovary, but could not find it. I was puzzled by the condition of the pelvis on the left side, where I could only make out a feeling of unusual fullness in the broad ligament, on which I made a remark to the spectators. The appendices epiploicæ and intestines, particularly near the pelvis, were stained dark like the peritoneum, and were very much injected and even roughened by a fine vascular network on the surface. Finally inspecting the stump, and seeing that the uterine cornu was involved, I applied another circular ligature, and then closed the wound in the usual way. The operation lasted just under forty-five minutes. The tumour weighed about 11 lbs.

1st day.—Operation from about 2.45 to 3.30 p.m. 5 p.m.: Skin acting well; temperature 99°, pulse 72. 9 p.m.: Free perspiration; no sickness; temperature 99.2°, pulse 72. A slight hæmorrhagic discharge from vagina.

2nd day.—9 a.m.: Has had a very good night. A mouthful of barley-water brought up with eructation. Tongue moist, a thin white fur; thirst not excessive. Urine deposits urates. Temperature 99.6°, pulse 84. 5 p.m.: Temperature 100°. 9 p.m.: Temperature 100°, pulse 86; urine passed naturally.

3rd day.—9 a.m.: Tea and toast for breakfast; barley-water through the night. Temperature 99.8°, pulse 80. 9 p.m.: Vaginal discharge has ceased. Temperature 100.2°, pulse 88, respirations 19. 11 p.m.: Temperature 100.6°.

4th day.—9 a.m.: A very good night. Tongue moist and fairly clean; very little thirst; changed the dressings; wound looking well; no distension; temperature 100.6°, pulse 88, respirations 21. 3 p.m.: Temperature 101.2°, pulse 83, respirations 20. 6 p.m.: Flatus has passed very freely; temperature 100.8°. 9 p.m.: Flatus passing freely; temperature 100°, pulse 78.

5th day.—9 a.m.: About 5 a.m. had some “stomach-ache”; at 7 a.m. she passed a large quantity of flatus, which removed it; temperature 101°. Now the temperature is only 100°. 3 p.m.: Tongue moist, almost clean. Patient feels very comfortable; flatus passing freely again; temperature 99.2°, pulse 88. 9 p.m.: Temperature 99.2°. 12 midnight: Bowels acted a little, and a great deal of flatus passed at same time; temperature 99.6°.

6th day.—Pil. coloc. hyoscy. at 1.30 a.m., and two ounces Hunyadi water at 4 a.m.; at 5 and 7 a.m. bowels acted. 9 a.m.: Feeling and looking very well. Wound washed with sulphurous acid lotion (when dressed); united except at one point between two of the stitches, where the skin was not well adjusted. Temperature 98.8°. 11 a.m.: Temperature 98.6°; taking milk and barley-water, bread-and-milk, etc. 9 p.m.: Temperature 99°.

7th day.—9 a.m.: Bread-and-milk for breakfast; Temperature 98.6°. 1 p.m.: Boiled sole for dinner. 9 p.m.: Gruel for supper; temperature 99°.

8th day.—9 a.m.: Appetite good; tongue clean; temperature 98.4°. 1 p.m.: Sole for dinner. 9 p.m.: Milk arrowroot for supper; temperature 98.8°.

9th day.—9 a.m.: Two stitches removed; temperature 98.4°. 1 p.m.: Chicken for dinner. 2 p.m.: Bowels acted. 9 p.m.: Milk arrowroot; temperature 98.8°.

10th day.—9 a.m.: Remaining sutures taken out. Wound healed by first intention, except at point already mentioned. No irritation about stitch-holes; temperature 98°. 9 p.m.: Temperature 98.6°.

11th day.—10 a.m.: Complains of a feeling of stiffness about the angle of the left lower jaw. Slight swelling in region of parotid. Bowels open. Thinks she must have had a chill in the night, as she felt the draught from the window. Prescribed a saline mixture, light diet. Temperature 100°; pulse 100. 7 p.m.: Skin acting well; temperature 101°. 9 p.m.: Temperature 100.4°.

12th day.—Parotid swelling continues; temperature 99.6°. 9 p.m.: Temperature 100.8°.

13th day.—9 a.m.: Parotid swelling more diffused; temperature 99°, pulse 94. 9 p.m.: Bowels open; temperature 99.6°, pulse 94.

14th day.—9 a.m.: Swelling continues, but there is less discomfort; temperature 98.8°. 9 p.m.: Complains of pain in side of the head, and says her left eye is affected—sight dimmed. Nothing abnormal in appearance. Throbbing about ear, and is quite deaf on left side. Temperature 101°.

15th day.—9 a.m.: Has passed a very restless night. There is a red blush over parotid swelling, which is very hard. Poultice. Temperature 100.6°. 3 p.m.: Blush tending to lividity; temperature 101.6°. 5.30 p.m.: Temperature 103°. 9 p.m.: Temperature 101.8°.

16th day.—9 a.m.: Swelling very hard and livid; temperature 101°, pulse 106. (At 1 a.m. temperature 100.6°, and at 5 a.m. temperature 100.8°.) 1 p.m.: Temperature 102.8°. 3 p.m.: Temperature 103.2°; and at 7 and 11 p.m., temperature 103°.

17th day.—Swelling remains hard and livid. No fluctuation to be detected. Tongue furred; appetite gone; thirst great; bowels open. Wound looks well; no irritation, but pale and dry. Temperature 102.6°.

From this time the condition of the patient was rapidly downwards. On the night of the eighteenth a thin pus began to escape from the ear. On the morning of the nineteenth I opened two small abscesses below the lobe of the ear. There was then a tremulous motion of the tongue when put out, and of the arms. She answered questions slowly and with difficulty, and she lay in a semi-comatose state. Temperature varied from 102° in the morning to 103.8° in the evening. At 8 a.m. on the twentieth day, temperature 103.8°, pulse 146. At 8 p.m. temperature 105.2°, and at 9 p.m. temperature 105.4°. She died at 12.15 mid-night.

The post-mortem examination was made by Mr. Alban Doran. Here it is *verbatim et literatim*, with the exception that I have italicised the points to which I shall draw attention.—

"Mrs. W., 49. Operation June 11, 1879, 2.30 p.m. Died July 8, 1879, 12.20 a.m. Post-mortem July 8, 4.30 p.m.

"Body well nourished, rigor mortis ill-marked, no post-mortem discolouration; abdomen not distended with flatus.

"Left side of face and neck close to angle of jaw swollen and livid (this condition had existed for ten days). An inch below lobule of ear a small abscess-knife wound was found, where fetid pus freely escaped on pressure; a probe passed down this incision discovered the angle of the lower jaw, denuded of periosteum.

"Abdominal incision 5 inches long, ending superiorly $\frac{1}{2}$ an inch below umbilicus; depth of fat at side of incision $1\frac{1}{4}$ inch. *Integument perfectly united by first intention*, except at one point, the diameter of a goose-quill; so that the cicatrix appeared as a line of bluish cicatricial tissue. Fat and aponeurotic structures and peritoneum united imperfectly by sticky lymph, which broke down on gentle traction.

"Thorax: Right lung deeply congested, nowhere consolidated. Several hæmorrhagic and embolic infarcts near its surface; one of these was half an inch in diameter, pale, purulent in the centre, and surrounded by several dark concentric rings marking tissue in different stages of hyperæmia. Pleura normal. Left lung deeply congested; two or three infarcts on its surface. Several old pleural adhesions.

"Heart: Pericardium containing about 2 oz. of highly purulent serum. Muscular walls very soft; no valvular disease. Clots in chambers dark and very soft; weight 10 oz.

"There was no evidence of pyæmic, nor of any other form of joint-disease.

"Abdominal Cavity: No free fluid in peritoneal cavity. Serous coats of intestines moist and sticky. A coil of ileum adhered slightly to abdominal wall, close to the incision. A fluctuating cyst the size of a small orange projected into the abdominal cavity from the pelvis, to the left side of the brim of which it adhered. It tore readily when pinched with forceps, and was then found to be filled with very thick fetid purulent matter. It proved on further examination to be the left ovary. *The stump of the pedicle of the right ovary projected into the abdominal cavity as well; its raw surface was sloughy, and covered with brickdust-coloured exudation; it was firmly secured by ligature. The con-*

tiguous parts adhered over the threads by the medium of sticky lymph, easily broken down.

"Liver: Weight 3 lbs. 8 ozs., deeply congested and fatty. No infarcts nor metastatic abscesses.

"Kidneys: Right $10\frac{1}{2}$ ozs., left 8 ozs. Both deeply congested. Capsules slightly adherent; numerous metastatic abscesses on surface, and several nearly a line in diameter deep in the cortex. Spleen small, firm, and normal.

"Uterus with walls 1 in. thick near fundus. A small subperitoneal fibroid the size of a cob-nut projected from the fundus close behind the origin of the Fallopian tube. Neither tube was dilated nor diseased."

Let me first review the clinical history of the case. It will be seen that there were no grounds for anxiety during the first week following the operation. Although the temperature rose on the fifth day to 101°, it immediately fell on the escape of a large quantity of flatus. This rise of temperature was therefore to be attributed to nerve irritation in some over-distended portion of the intestinal canal. That it could not be due to any morbid process about the pedicle must be evident from the fact that from this time the temperature steadily decreased until it stood at the normal height, while the general condition of the patient improved correspondingly. She continued well till the eleventh day, when the symptoms of disease about the ear first appeared. The patient herself attributed this to a chill, but I was inclined at that time to doubt her explanation. However, she had this in favour of her view, that the side affected was the one exposed to the draught as she lay between the window and the fireplace in a direct line. For two or three days I had hoped for resolution of the swelling, but the rise of temperature on the fifteenth day made me fear suppuration. The nineteenth day was reached before I could detect fluctuation, and already pus was discharging from the internal ear. The further progress of the case—the profound constitutional disturbance, the rise of temperature, and increased frequency of the pulse and respiration—was sufficiently explained by the results of the post-mortem examination, to which I must now turn.

And what does this tell us? We find that the wound had healed by first intention, except at the point already indicated and explained. On opening the abdominal cavity, Mr. Doran tells us, there was "no free fluid in the peritoneal cavity." "The stump of the pedicle of the right ovary projected into the peritoneal cavity . . . its raw surface was sloughy, and covered with brickdust-coloured exudation; it was firmly secured by ligature; *the contiguous parts adhered over the ligatures by the medium of sticky lymph, easily broken down.*" Here, then, we have the most indisputable evidence that there was no morbid process about the pedicle, but that it was passing regularly through those changes towards complete organisation, which I have so fully described elsewhere, until the process was arrested by the general disturbance of the vital forces in the last few days of the patient's life. Mr. Doran used the term *sloughy* as distinguished from *sloughing*, and it no doubt accurately represented the appearance of the part. And this is only what previous knowledge of the process would lead us to expect. The recently organised lymph must have been the first to fail; and it shows the completeness of the process, that it had not already broken down so as to expose the ligatures. That nothing of this kind had occurred is further shown by the absence of any fluid, or even *débris*, in the pelvic cavity, or in the neighbourhood of the stump. There was not even any adhesion to neighbouring parts. The same interruption of the process of repair is seen in the case of the abdominal wound, which also easily broke down. The condition of the serous coats of the intestines is explained by a reference to their state at the time of the operation—viz., roughened, and covered with a fine vascular network,—and requires no further remark.

Again, Mr. Doran says, "the left side of the face and neck, close to the angle of the jaw, swollen and livid; an inch below the lobule of the ear a small abscess-knife wound (there were really two) was found, where fetid pus freely escaped on pressure. A probe passed down this incision discovered the angle of the lower jaw denuded of periosteum." It is much to be regretted that the head was not opened. It would have been interesting to know how far the petrous portion of the temporal bone was affected, and whence came the pus which issued from the meatus. But enough was done to ascertain the existence of necrosis of bone. That

this could only have existed a few days is evident, and may be taken as an explanation of the small amount of pyæmic mischief found in other parts of the body—viz., in the lungs and kidneys,—and which also was of very recent origin. The pyo-pericarditis in this case calls to mind those instances of abscess in the heart's walls described by Drs. Wilks and Moxon as being frequently found in pyæmia associated with necrosis of bone. The liver, though deeply congested and fatty, contained no infarcts nor metastatic abscesses.

But it will be asked, What about the abscess in the left ovary? My own opinion is that, there being a cyst there at the time of operation (as evident from the description), the inflammatory process was set up within it consequent upon the inflammation in the internal ear and lower jaw. The fœtor of its contents is readily explained by its close proximity to the sigmoid flexure of the colon and rectum, where abscesses usually become fœtid, and sometimes even suppurating ovarian cysts, as in a recent case of mine in the Samaritan Hospital. Its existence gave no manifestations during life, being masked, no doubt, by the graver disease elsewhere.

I therefore consider that I was justified in regarding the case as one of "idiopathic otitis and parotitis, with necrosis of bone, followed by pyæmia," as written down in my notebook, and in thinking that it was as independent of the operation as if it had been scarlet fever.

12, Granville-place, W.

PREMONITORY SYMPTOMS OF INSANITY IMPROVED BY MEDICAL AND MORAL TREATMENT.

By HENRY SUTHERLAND, M.D.,

Physician to St. George's, Hanover-square, Dispensary.

J. B., aged thirty-one. Great-aunt insane; father and grandfather intemperate. Patient not intemperate, but married, and a history of great marital excess. For some months past has been depressed and hysterical, extremely nervous, and full of odd fancies. He would remain awake all night, trembling at the thought that he might cut himself when shaving the next morning. Cannot look at knives or any sharp instrument without being seized with an unaccountable fear. Has never contemplated suicide. Has had a wish to jump through the windows of the shops in the street. Had an especial dread of going over a bridge, which made him go round some miles to avoid it. Says he is afraid to be left alone, as he keeps thinking of "how he has felt." Cannot see a butcher cutting up meat without being much upset at the sight. If he goes on a steamer he thinks he must jump overboard. Sees "knives floating in the air" before he goes to sleep, when his eyes are shut. Sleeps very badly.

Treatment.—Chiefly moral; total abstinence from intercourse being recommended for some months. Drugs—pot. bromid. and strychnia. After six months' treatment complete recovery took place, the importance of the symptoms being fully recognised by the patient and his wife.

CATILLON'S CHLORAL POMADE.—Chloral six, lard twenty-seven, and white wax three parts by weight. This is an anodyne ointment which may be substituted for chloroform pomade, remaining active for a longer time owing to the fixity of the chloral.—*Union Méd.*, November 18.

RE-FILLING PRESCRIPTIONS.—"If any physician practising medicine in this State shall write or cause to be printed on any prescription the words 'No duplicate,' any druggist, apothecary, or vendor of medicines who shall duplicate a prescription so written or duplicated on, without the consent of the physician writing this prescription, shall, upon conviction, be subject to a fine of \$10 for each and every offence, together with all the costs of suit."—(Wisconsin Medical Act.) We wish this law prevailed in Louisville. Here, one prescription gotten on credit, and often not paid for, is used by an individual or a family indefinitely, and is besides often loaned to friends and relatives. It is pleasing to know, however, that the modest and moderate-charging druggist gets his little 100 per cent. or more profit every time the Rx. is filled.—*Louisville Med. News*, November 1.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY. GUY'S HOSPITAL.

HYDATID TUMOUR OF LIVER GIVING RISE TO JAUNDICE.

(Under the care of Dr. MOXON.)

ON November 15 we published a case of hydatid tumour, under Dr. Moxon, which, like the following one, ended in abscess, but where the abscess opened into the pleura. In this case the tumour pressed on the bile-ducts and caused jaundice. The chief point of interest lay in the difficulty of diagnosis on admission.

James W., aged thirty years, a carman, was admitted on July 30. There were no points of importance in his family history. He had syphilis seven years ago, for which he was under treatment. He was a beer-drinker, and had at times drank a great deal. About twelve months before admission he had a fall from a van, and about a month after began to feel very drowsy, and noticed that he was getting yellow. The jaundice had continued, more or less, until admission. In the course of his work he had been much exposed to the weather. The following are the notes of his condition when admitted:—

"Patient is a strong, well-nourished, healthy-looking man about the middle height. The skin is cool, moist, and jaundiced all over. The glands in the groin are small, numerous, and indurated. The tongue is pale, clean, red at the tips, and moist. The appetite is good. Bowels confined. There is some fulness of the abdomen, and bulging on the right side. A large hard swelling can be felt occupying the right hypochondriac and part of the lumbar, epigastric, and umbilical regions: it reaches to within an inch of the umbilicus; does not fluctuate; there is no thrill to be felt; and it moves with inspiration and expiration; it is dull on percussion. The liver can partly be felt below the ribs. The heart and lungs are normal. The urine is dark-coloured and contains bile; specific gravity 1018. Temperature 98°; pulse 44; respirations 18. The motions are very light-coloured. Patient's weight is 135½ lbs."

Patient was kept under notice, and local and constitutional treatment adopted of various kinds, but without much benefit, the jaundice remaining more or less fixed. On September 16 the needle of the aspirator was passed into the tumour about two inches below the ribs, and an inch and a half to the right of the middle line. About two drachms of clear fluid were drawn off, and the needle could be moved about as though in a cavity.

September 24.—Yesterday Mr. Colly inserted a large trocar and canula into the tumour, and drew off a large quantity of a clear fluid, slightly yellow from bile, and containing about a dozen hydatid cysts. The cavity appeared to be a large one, as a probe passed into the opening could not be made to touch the opposite wall. On examination under the microscope a few hooklets could be seen, but no heads could be found.

29th.—He has progressed well since the tapping of the cyst. The jaundice is disappearing, and the temperature has remained normal.

30th.—Last night temperature rose to 102.6°; this morning it is 102°, and patient has had a rigor. He complains of headache. There are no pains in the abdomen; the face is flushed and the skin is hot.

October 6.—The temperature has been fluctuating from 99° to 103°. Patient complains of no pain in the abdomen, but had a bad headache last night. To-day Mr. Jacobson punctured the tumour with a trocar and canula, and drew off about two or three ounces of blood-stained serum and two hydatid cysts.

7th.—No sickness followed the tapping of the tumour. To-day patient looks anxious, and has had great pain in the abdomen. Evening temperature 100°.

10th.—Patient has been very sick since 4 a.m., and has brought up a large quantity of greenish-coloured semi-fluid material, which yields the bile test with nitric acid.

23rd.—Patient has suffered a good deal with sickness since last note, the vomit being of the same character as then

and discussed, and it had to be admitted that they were undoubtedly genuine cases of vaccinal syphilis; and it may be added here that Mr. Hutchinson reported some additional cases early in 1873. After this it was impossible to ignore the fact that even in England, and when due care had apparently been taken in the selection of the vaccifer and in the performance of vaccination, vaccine lymph might be made the means of communicating syphilis. As a consequence it became a duty to insist that, as a complement to compulsory vaccination, the option must be given between humanised and animal lymph; and that of course the necessary constant supply of heifer-lymph for this purpose must be a State matter. From this position we have not swerved; and in support of it we have from time to time reported the remarkable success obtained by the use of heifer-lymph in Milan; in Brussels, by Dr. Warlomont; in Belgium; and in America, through the remarkable private enterprise of Dr. H. A. Martin, whose contributions on the subject to these columns are probably the most important extant. And on the last occasion when we wrote on the subject (*Medical Times and Gazette*, vol. ii. 1878, pages 26 and 104) we not only described what animal vaccination properly is, and how it is to be provided for and performed, but we also pointed out how the Government might, without any increase of expense to the nation, establish an institution for the regular and efficient supply of pure animal lymph; while, as an additional reason for this provision, we pointed to the strong grounds that exist for the belief that vaccine lymph does in some measure lose its protective powers by repeated transmission through the human subject, and that therefore also recourse should not infrequently be had to the original source for a fresh supply. But it is very difficult to compel the attention of any Government or party to a subject that is either free from political bias or significance, or likely to excite the opposition of any noisy band of agitators. And it is perhaps still more difficult to obtain a real and full reconsideration of a decision once pronounced upon a subject by those valuable public servants, the high permanent officials of departments, upon whose experience and advice successive Governments, as they come and go, must so largely depend. It is well known that the present Principal Medical Officer of the Local Government Board decided some years ago against animal vaccination as being both superfluous and unsatisfactory. It will consequently still require, we fear, much steady, persistent, and combined effort to carry such a Bill as Dr. Cameron's. We are therefore glad to learn that M. Warlomont has accepted an invitation to come to England—(by the way, why has Dr. Martin, who has openly expressed his willingness to comply with such a request, been left uninvited?)—and lay before a committee of the British Medical Association the results of his many-years-long experience as head of the Bureau of Animal Vaccination in Belgium. Moreover, we have great satisfaction in knowing that the opinions we have so long put forth on the subject in question have the support of Sir Thomas Watson, who has lately reminded the public that he has, in the pages of the *Nineteenth Century*, earnestly advocated vaccination from the calf, "as carrying with it the potential extinction of the only valid objection that can be alleged against vaccination in general; and justifying, therefore, the needful compulsion of vaccination by force of law."

We have said that we hope Dr. Cameron's Bill will be amended; and it needs amendment, we think, in this direction: when a parent or guardian refuses to permit a child to be vaccinated, he ought to have the option of human or animal vaccination; but both being refused, not only should he be punished for disobeying the law, but the child should be vaccinated with animal lymph. This is required

as the logical complement of a compulsory vaccination law: while at present, however often the parent or guardian is punished for disobedience, the child remains unprotected against the dangers of small-pox.

We need not say that our earnest advocacy of animal vaccination does not arise from any doubt of the immense value of successful vaccination as now performed, or as to its almost absolute freedom from disastrous consequences. On these points the evidence that has gradually accumulated cannot fail to convince every reasonable and unprejudiced person, and fully justifies compulsory vaccination; and the statistics lately published by the Managers of the Metropolitan Asylum District only help to establish beyond doubt the mitigating influences in small-pox cases of successful primary vaccination, and the preventive powers of efficient revaccination. The total number of small-pox patients treated in the hospitals of the Managers, from the outbreak of the epidemic in 1876 to the beginning of October last, was 15,171, of whom 11,412 were vaccinated and 3759 unvaccinated. The percentage of mortality was at the rate of 8.8 of the vaccinated, and no less than 44.4 per cent. of the unvaccinated. And among the "vaccinated" patients were included "the majority of those who stated that they had been vaccinated, but upon whom no traces of vaccination were discernible." The immediate protective value of revaccination was shown by the fact that the nurses and servants employed in the hospitals during the epidemic enjoyed almost absolute immunity from infection; the few—some half-dozen amongst nearly one thousand—who contracted the disease having, from some cause or other, escaped revaccination before entering the wards. Still, we hold that, as it is possible that humanised vaccine lymph may be made the vehicle of syphilis, and that it may lose in force by repeated transmission, it is the duty of the State to provide constant fresh supplies of lymph from the original source—the heifer,—and thus to remove all reasonable objection to vaccination, and to secure an at all times sufficient supply of virus that shall be fresh, energetic, and pure beyond suspicion.

TREATMENT OF TYPHOID OR ENTERIC FEVER.

ELSEWHERE in our columns will be found an exceedingly interesting letter from Dr. A. P. Stewart—fortunately not yet dated from the "Shades"; but we must leave that to speak for itself, and must now turn to the question of the treatment of typhoid. It was to this subject that Sir William Jenner mainly addressed himself at Birmingham, though it was impossible for him to avoid touching on certain pathological topics. To attempt a criticism of what Sir William Jenner has to say on such a subject savours somewhat of audacity; nevertheless, as it seems to us, there are certain points which may at least be discussed with advantage. The whole strain of the argument, however, is so sound, and appeals so closely to everyone's experience, that what can be in any way cavilled at are only certain side issues, comparatively speaking, of small importance.

The first point made by Sir William Jenner is, that after all we must come to practical experience in cases of typhoid fever, and that this experience tends to assume very much the complexion of the observer; what he himself gives is the outcome of his own personal experience—that, we need hardly say, of one of the shrewdest observers extant.

It will be of some little interest to certain among us to know Sir William's first dogma. "I have never," he says, "known a case of typhoid fever cut short by any remedial agent—that is, cured." This is in curious contrast with the belief held some years ago. Then it was thought that a purge or a sweat might cut short or arrest an attack of fever. Even Niemeyer speaks of cases of typhoid cut short by full

doses of calomel. No doubt whatever, many cases of fever depending on local and non-specific causes may so be got rid of; but these are not typhoid. In true typhoid, on the other hand, irremediable damage may be done by the use of a violent purge, or that simplest of all diaphoretics, a good walk. And it is here that the thermometer does such good service, though its evidence is not always incontestable. Sir William's plan in such doubtful cases is to send all patients to bed. But we cannot always get them to go; it is hard to persuade a man who only feels a little out of sorts and rather weaker than usual, perhaps with a slight headache, that he is suffering from such a terrible malady as typhoid fever. We have known men going about when there must have been deep ulcers in their bowels, apparently suffering but little. It is by such doubtful cases that the skill of the physician is tested. In one case a small dose of carbonate of bismuth or compound rhubarb powder may settle the matter by a return to health, or it may give rise to a totally different result. We repeat that the question is to know when and where to employ such remedies.

But when once typhoid fever is fairly diagnosed there can be but one opinion—the patient ought to be kept at absolute rest. The rule holds equally good as regards typhus; but in that malady there is usually little difficulty in attaining this end, the prostration soon becomes so great. That, however, need not be the case in typhoid: hence one of its great dangers.

There is no portion of Sir William Jenner's address which has given us more pleasure and satisfaction than his outspoken denouncement of the indiscriminate employment of milk. Elsewhere he speaks of the like abuse of alcohol. But we are inclined to question whether the abuse of milk is not more wrongful than that of alcohol. It is the same in the case of children. Milk, which cannot be digested, is thrust down more or less willing throats, and then all the intestinal evil consequences follow, for the curd is not digested. In typhoid there is risk of the hardened particles making their way into ulcers and causing ulceration as well as sphacelation; risk of putrefaction, and the development of foul gases distending the enfeebled bowel, producing discomfort and favouring rupture. But may not some of these disadvantages be met by the use of whey? Again, Sir William Jenner speaks of that terribly uncertain substance, beef-tea, whilst he only alludes—but hardly, we think, gives full force—to the value of the meat essences now so easily obtained, and in typhoid cases so infinitely useful. We are heartily glad to hear from such an authority of the admissibility of bread, but we regret to find no mention of an old, highly esteemed, and most reliable friend, raw pounded meat, which, with thin-cut stale bread, makes excellent sandwiches for convalescents; or, in the more dangerous stages, by itself, with or without a little pepsine and hydrochloric acid, is often worth its weight in gold.

To many, one of the chief bugbears in typhoid is the diarrhoea, but Sir William Jenner tells us that within certain limits it is rather beneficial; nevertheless, it may prove both troublesome and dangerous, especially by exhausting the patient. This diarrhoea, as Sir William Jenner well points out, is very frequently not an essential but an accidental part of the disease. Thus we may often see reddened intestine extending from ulcerated patches, incidental to, but not absolutely dependent on, their presence; whilst catarrh is quite as likely to depend on improper feeding as an extension of the inflammation alluded to. But what is to be done for it? Here, as usual, Sir William is eminently sound. He says, Give bismuth, but avoid opium. Opium is, in point of fact, one of the most dangerous remedies which can be employed in this disease. If there is sleeplessness, bromide and chloral are better; and the only instance where the use of opium may be really

said to be indicated is in the hopeless condition of peritonitis following perforation. Even here we should be more inclined to give it under the skin than by the mouth. If diarrhoea requires its use, then it should be given along with starch by the rectum, but as seldom and in as small a quantity as possible, lest the lower bowel become torpid whilst mischief is proceeding apace higher up.

One of the most troublesome accidents in typhoid is flatulent distension. It is easier avoided than cured; often it depends on improper food, but partly also it arises from relaxation of the bowel from impaired innervation and loss of tension in the muscular coat. Here we are placed in this dilemma: Are we to run the risk of rupturing the gut? Shall we undertake any active procedure, or shall we let the mischief take its course, distending the intestine and keeping open its wounds? It is hard to confess that treatment is of little or no great use. What would Sir William Jenner say to puncturing the abdomen and bowel at some spot remote from the cæcum with a fine hollow needle? We fear he would hardly assent, for his fundamental maxim is, that it is best, when dealing with an active remedy which may bring good as well as evil, to weigh the two contingencies, and “if the possible evil be death, and the probable good short of saving life,” the practitioner will do well to hold his hand.

Space will not allow us to do as we would wish—to follow Sir William Jenner through the whole of his address, step by step,—but there are one or two points which must still be noted. In typhoid there are perhaps two main risks besides those arising from the ordinary course of the fever. These are bleeding and perforation, and sometimes hyperpyrexia. As regards the bleeding, Sir William's experience is not so despondent as that of some. He recommends, first of all, that the patient be kept at absolute rest, and that the faintness following on the loss of blood should not be attacked except when it is likely to lead to death. Remedies in these cases are not easily applied. We have found ergotine used hypodermically *apparently* useful in such cases; but this may be merely what the orator spoke of as a *post hoc*, not a *propter hoc*. As regards the ulceration, Sir William Jenner insists that the constitutional effects of a single deep ulcer are much more serious than are those arising from a number of superficial ones. We could easily imagine this to be the case as regards risk of perforation, but it is hard to understand as regards the general condition. Perforation he looks upon as almost necessarily fatal.

The treatment of hyperpyrexia is not quite so clearly separated from that of the specific disease as we have no doubt it is in Sir William's own mind, but his gradations in treatment are, we think, most judicious, and, as we know from experience, may be relied upon. First, alcohol in full doses; next, quinine in full doses; next, the wet sheet; lastly, iced baths. Of these last, the value, in the estimation of Sir William, seems to be doubtful, except in cases of very high temperature where death is imminent. We think he hardly does full justice to the wet sheet.

For the heart-symptoms, alcohol he holds to be *the* remedy; and this brings us to the last part of the address—that relating to the use of alcohol in fever. It is sound and sensible, as is every portion of it, but especially valuable in the face of fanatic opposition. There are cases of typhoid where no alcohol is needed, but there are few where the patient is not the better for some by the third week, and it certainly aids most materially the long and wearisome convalescence and hastens the return to good health.

Much more we should like to say, but even what we have said may be of some use, for we have tried to give the broad points of what we have no hesitation in pronouncing the most important contribution to the knowledge and treatment of typhoid fever which has appeared for many years.

THE WEEK.

TOPICS OF THE DAY.

IN the Common Pleas Division of the High Court of Justice, on the 24th inst., application was made, by the Solicitor-General, on the part of the plaintiff in the case of *Nowell v. Williams*, for a new trial. The specific grounds upon which a new trial was asked were—misconception of evidence, surprise, and misdirection by the learned judge. Affidavits in support of the application were read, stating, among other things, that the plaintiff's son, if he had been called, would have contradicted the statement that the plaintiff had assaulted his wife in his presence; and the Solicitor-General explained that he was not called only in deference to the expressed wish of the plaintiff at the beginning of the trial, that his children should not be mixed up in any way with the proceedings. With respect to the surprise, circumstances had come to light since the trial which would have the effect of weakening the evidence given by Dr. Allen for the defendant; while Dr. Fernie, one of the doctors who was to have given evidence for the plaintiff, would most certainly, if there were a new trial, be put into the witness-box. The Solicitor-General explained that this witness was not called only in deference to an intimation from the Bench that a sufficient number of expert witnesses had been called already, yet in summing up the learned Judge had commented with great effect on the absence both of Dr. Fernie and of the plaintiff's son. The Solicitor-General, in conclusion, asked for a new trial on the ground of misdirection in the learned Judge in not giving to the jury some guide as to the nature and degree of lunacy which would make a person dangerously insane, and would be the only justification of his being placed under restraint. The Court intimated that they would take time to consider whether they would grant a rule *nisi*.

At the last week's meeting of the City Commission of Sewers, a letter was read from the Home Office, in which Mr. Secretary Cross drew attention to the Artisans' and Labourers' Dwellings Improvements Act, 1879, pointing out that it conferred important facilities for carrying out schemes under the principal Act of 1875. By the third section the amount of compensation will be considerably diminished in cases where the house or premises proposed to be taken can be proved to the arbitrator to have been at any time between the date of the official representation and that of the confirming Act a "nuisance" within the meaning of the Nuisances Acts. The fourth section will enable the confirming authority to relax the restriction imposed by which it was necessary that the accommodation for persons of the working classes should be provided within the area affected by the scheme, or in its immediate vicinity, unless there are special reasons to the contrary. Mr. Cross further trusted the Commissioners would take advantage of these facilities to promote schemes, and he felt sure that he might rely upon them to co-operate with him by doing all in their power to put an end as early as possible to the scandal that would otherwise attach to the metropolis from the continued existence of those "rookeries" which had at present such a moral and social effect for evil as to be a disgrace to a highly civilised community. The letter was referred to the Finance and Improvement Committee, though it was pointed out that the Commissioners had already anticipated Mr. Cross's wishes in dealing with the Golden-square, the Redcross-street, and other notorious "rookeries" within their jurisdiction.

The Wandsworth Board of Works recently summoned a baker of High-street, Putney, on a charge of exposing infected clothing in a public place, the summons being taken out under Section 38 of the Sanitary Act of 1866. The

defendant and his wife attended upon their child, who was suffering from scarlet fever, and not only conducted the business of their shop, but the husband, without changing his clothes, went round from house to house delivering bread. The magistrate before whom the case was heard observed that the practice complained of was a dangerous one, but he did not think that a man, by going about in his own clothes, was guilty of an infringement of the Act: thus, a doctor went about in clothes he had worn whilst visiting patients. To this Mr. Corsellis, on the part of the Board, replied that he should be able to show that it was the practice of doctors to disinfect their clothing. Dr. Alexander Walker, Medical Officer of Health for Putney, substantiated the particulars given as to the exposure; he met the defendant delivering bread in the same clothes he had noticed him wearing in the sick-room, and he cautioned him on the subject. Medical men certainly adopted precautions. He had never attended a patient without disinfecting his clothing; he should consider it dangerous if he did not do so. The magistrate again expressed an opinion that the Act of Parliament did not reach the case, although he certainly wished it did apply. Mr. Beard, for the defendant, stated that he could prove that his client had disinfected his clothing. The magistrate said the defendant ought to have told the authorities that before. He must dismiss the summons, but he would grant a case if required, and he hoped it would be found that he was wrong. Mr. Corsellis promised to consult the Board as to whether they would require a case for the opinion of a superior court.

The necessity for enforcing the provisions of the Infant Life Protection Act in Liverpool and its vicinity has been abundantly proved by the number of applications which have been recently made to the different parish authorities there by women who are anxious to relieve themselves of children they have undertaken to rear. The severe punishment inflicted in the Tranmere case has awakened these persons to a sense of the responsibility they incur, and has already evidently done much to discountenance a practice full of dangers and temptations, and illegal. The Cheshire authorities can hardly have been cognisant of the widespread system of baby-farming which was prevalent in their midst, and the application of the Infant Life Protection Act, properly administered, will prevent a repetition of those disgraceful cases, which, under proper supervision, ought scarcely to have been possible in a country such as our own.

We learn from America that official notice of the termination of the epidemic of yellow fever in Memphis was issued on October 25 last; the number of cases during the outbreak is returned as 1503, with 498 deaths. Besides Memphis, a very large number of places in not less than fifteen States have been visited by the disease; but nearly all the cases occurred among refugees, or could be traced to them. New Orleans is the only exception; and the present is the first epidemic on record which it is quite certain did not spring from imported germs. This must be taken as established as regards New Orleans; and the rumour to the contrary regarding Memphis is not yet fully substantiated. If this be true, it can no longer be denied that yellow fever germs will survive frost, since the winter of 1878-79 was of exceptional severity throughout the Southern States. In further proof of this it is shown that a vessel called the *Plymouth* was dismantled, disinfected with extraordinary care, and exposed to the weather in Boston Harbour during the whole of the winter; nevertheless the fever reappeared on board when the ship was again fitted out. It would also seem that yellow fever germs are now acclimatised in the United States, so to speak, so that the disease may be expected to appear, independently of importation, whenever local conditions are favourable—an inference which will tend to weaken the

efficacy of quarantine regulations. This was the first year in which there had been a National Health Board to assist in dealing with the outbreak of yellow fever, but it is stated that, although its intentions were good, its work has been disappointing.

The case of Hill and others *v.* the Managers of the Metropolitan Asylum District, commonly known as the "Hampstead Small-pox Hospital Case," came before the Court of Appeal on Tuesday last. It will be remembered that the original action, which lasted several days, ended in a verdict for the plaintiffs. The Judge, Baron Pollock, left five questions to the jury, and on their findings he gave judgment against the defendants with costs. He also granted an injunction restraining the defendants from carrying on the Hospital so as to be a nuisance to the plaintiffs, suspending the issue of the injunction for three months. From this judgment the defendants appealed. The defendants also obtained from the Queen's Bench Division of the High Court of Justice an order for a new trial. From that order the plaintiffs appealed, and it was arranged that the two appeals should be heard together. Mr. Herschell, Q.C., who appeared for the plaintiffs, now contended that the findings of the jury were right and the judgment right. He proceeded to speak in support of the finding of the jury that the Hospital was a nuisance, taking first the evidence of medical scientific opinion, and secondly the evidence of fact. Mr. Herschell further contended that the Metropolitan Poor Act, 1867, under which the defendants sought to exercise the powers and do the acts complained of, gave no new power, but merely extended the power given by the Poor-Law Act of 1844. The Attorney-General, on the part of the defendants, maintained that they were not liable, because they acted under, and were bound to obey, the orders of the Local Government Board; and that the Asylum Board had a discretion given them by the Legislature to select spots and erect asylums on them. If, then, they had honestly and properly exercised that discretion, they were protected, even should it be considered by the Court that the Local Government Board had no authority to give orders on the subject. The Attorney-General had not concluded his arguments when the Court rose on Wednesday.

A deputation from the Lancashire and Cheshire Miners' Association waited upon the Home Secretary on Monday last to bring to notice the present method of conducting inquests on deaths arising out of colliery accidents. It was explained that, in consequence of the county magistrates cutting down expenses, the Coroner for South-West Lancashire now only took one death as representative of a given number of deaths arising out of the same accident. Mr. Cross pointed out that it was a matter over which he had not entire control, but he promised to give instructions to the inspectors to make a thorough investigation of the matter.

Owing to a serious outbreak of measles amongst the children attending the Woodhouse-street Board School, Leeds, which accommodates 500 scholars, it has been found necessary to close it for the past ten weeks; and other schools in the neighbourhood are being disinfected by order of the Medical Officer of Health. Scarletina is also prevalent amongst children in different parts of the borough. This latter disease is also reported to be very prevalent in East Sussex, where it is said to have been entirely confined to the children attending the public day-schools, or their brothers and sisters.

At a meeting held at Manchester, last week, under the presidency of the Bishop of the diocese, it was resolved to form an association in that town for the improvement of the dwellings of the poor, under the Artisans' and Labourers' Dwellings Act.

THE LATEST HONOURS TO ARMY MEDICAL OFFICERS.

THE *London Gazette* of Friday, November 21, contains the announcement that her Majesty has been graciously pleased to give orders for the appointment of twenty officers to be Ordinary Members of the Military Division of the Third Class, or Companions of the Most Honourable Order of the Bath. Of the twenty, two are medical officers—Deputy Surgeon-General Alexander Smith, M.D., and Deputy Surgeon-General John Hendley. The former served as principal medical officer with General Stewart's column; the latter as chief medical officer to the Quettah force.

A CASE OF LIBEL.

A CASE disposed of by the Recorder of London at the Central Criminal Court at the end of October is worthy of a brief notice. A person named James Colman or Colmer, secretary of the Blind Poor Relief Society, surrendered to his recognisances, and pleaded guilty to an indictment charging him with publishing a false and defamatory libel of and concerning Dr. Armitage and the Committee of the Indigent Blind Relief Society, Red Lion-square. He had started the Blind Poor Relief Society in opposition to the other Society; and it appeared that in 1875 he was charged with libel, but he then expressed his regret and apologised, and the case was withdrawn. Afterwards he renewed the libels, and charged the Committee, in letters written in the name of "Clara Russell," and under other signatures, to the Bishop of London and other gentlemen, with having misappropriated the invested money, amounting to £3000, of the Society. The prisoner at first pleaded a justification for the libels, but this plea was afterwards withdrawn. He was sentenced to pay a fine of £50, and to enter into sureties not to repeat the offence. The sentence seems rather a light one, considering the annoyance and vexation caused to Dr. Armitage and his friends, and the injury to the "Indigent Blind Relief Society." But perhaps subscribers to charitable societies may learn from the case to look rather more closely than they often do into the real character, the reports, and balance-sheets of societies they are asked to support, and to examine a little the lists of names which appear in connexion with them. Vast sums of money are annually given away in the name of "charity," with very little or no care or consideration, but merely for the asking.

HOSPITAL SUNDAY FUND.

ON Monday last the annual meeting of the Council of the Hospital Sunday Fund was held at the Mansion House for the transaction of business. Sir Francis Lycett presided, in the unavoidable absence of the Lord Mayor. The Council stated in their report that the seventh year of the operation of the Fund realised £26,501, as compared with £24,904 in 1878, notwithstanding the unusual financial depression of the times and a very wet Hospital Sunday. The sum of £22,804 was distributed to eighty-one hospitals, and £2157 to forty-six dispensaries. And, according to a new law passed last year, 1 per cent. of the gross (£260) was set aside for the purchase of surgical appliances. The annual report of the Council was adopted unanimously. A request was received from the Committee of the Middlesex Hospital, that patients who came there with orders for surgical appliances from the Fund, might be required to comply with the ordinary rule according to which out-patients must present themselves with letters from governors; and further suggested that they should be provided with surgical appliance tickets from the Fund for presentation to suitable out-patients applying for them. The Council, however, decided that they could not alter the existing arrangements for twelve months at least.

THE ARMY MEDICAL DEPARTMENT.

THE new Army Medical Warrant is still only "coming," though the delay in its publication is as impolitic as it is incomprehensible. In addition to what could be learnt beforehand of its terms, from the Schedule of Qualifications, we have very good reasons for believing that sick-leave on full pay will be given for twelve months, instead of for six only, as now; that the regulations relating to exchanges will be extended; that medical officers will be allowed soldier-servants from the Army Hospital Corps, or a money allowance; that special arrangements are to be made for the provision of quarters; and that all officers above the rank of Surgeon-Major will have forage, or, we suppose, forage allowance. This last rule will not give satisfaction, we fear, and we do not see why forage allowance should not be extended so as to include all Surgeons-Major, since in the so-called "combatant" ranks all field officers are entitled to forage or forage allowance. We further believe it will be found that the brigade dépôts will be mainly officered by those belonging to the Medical Department who are in receipt of half-pay.

DINNER TO SURGEON-MAJOR REYNOLDS, V.C.

ON Wednesday evening upwards of 130 gentlemen, members of the British Medical Association, gave a dinner to Surgeon-Major Reynolds, the recipient of their gold medal for distinguished merit, at Willis's Rooms. The chair was taken by Dr. Alfred Carpenter, of Croydon, Chairman of the Committee of Council, and briefly it may be said that the whole affair was a success. Among the guests present from all parts of the country were Sir William Jenner, Sir Joseph Fayrer, Professor Longmore, Professor Aitken, Professor De Chaumont, Professor Lister, Surgeon-General Mouat, V.C., Mr. Spencer Wells, and many others. The Chairman proposed the health of Surgeon-Major Reynolds in a speech of some length and verbosity; that gentleman replied briefly and tersely. The musical part of the entertainment was under the control of Dr. Lavies, who seemed as heartily at home in the rôle of the captain of H.M.S. *Pinafore* and the commander of her gallant crew as if he had been standing on his own hearthrug, or on the deck of the snug frigate in smooth water. Altogether, as it seemed to us, everyone concerned had reason to congratulate themselves on a success—not least Mr. Fowke and Messrs. Willis.

SANITARY REPORT ON THE HACKNEY DISTRICT FOR 1878.

IN commencing his Report on the Sanitary Condition of the Hackney District for the year 1878, Dr. John W. Tripe, the Medical Officer of Health for that portion of the metropolis, regrets to have to announce that the death-rate for the period in question is somewhat above the average—viz., 20·2 per 1000 of the inhabitants, against 19·9 for the eight years 1871-78, and 20·4 for the ten years 1861-71; but this increase, he shows, was not so large as that for all London, where the death-rate was 23·5, against 22·7 for the previous seven years. The excess in Hackney, according to Dr. Tripe, was due partly to small-pox, but chiefly to diarrhœa, whooping-cough, and scarlet fever, as well as to a very slight extent from typhoid and other fevers. The mortality from scarlet fever—123, against an average of 93—was, we are informed, scarcely to be wondered at, because 1878 was the year during which it was expected to prevail, as four years had elapsed since it was epidemic in this district. The number of deaths resulting from whooping-cough—135 against an average of 77—is, Dr. Tripe points out, deplorable, since it is largely attributable to the negligence of parents who fail to exercise sufficient care in keeping their children in a uniform temperature during the inflammatory

stage of the disease. The Report further remarks that the number of deaths from diarrhœa in all London during 1878, as well as in the Hackney district, has attracted much attention, especially amongst those who consider the prevalence of infantile diarrhœa to be a marked evidence of bad sanitary conditions. It can only be said, however, that the district of Hackney has not suffered in this respect so much as all London. As Hackney was one of the parishes which was attacked with small-pox at an early period of the epidemic, it was only to be expected that it should be one amongst those from which it should depart the earliest; and so, the Report observes, it has proved, for whilst Greenwich and other places on the south side of the river have suffered severely during the autumnal and winter months of 1878-79, Hackney was almost entirely free from it during that period. The various tables and remarks which are appended to the Report evince the amount of care and labour expended by Dr. Tripe in carrying out the sanitary supervision of the Hackney district.

THE METROPOLITAN WATER-SUPPLY FOR OCTOBER LAST.

THE Report on the Metropolitan Water-Supply for the month of October last shows that the state of the water in the river Thames, at the point where several of the companies derive their supply, was indifferent from the 1st to the 7th of the month, when it improved, and afterwards continued good during the remainder of the period. The water in the river Lea was generally good during the month. The water in the several intakes was in a much better condition during the month of October than it was in the previous month, and the filtration was efficient. The supplies of the whole of the metropolitan water companies were clear, bright, and properly filtered. As the result of his analyses, Dr. Frankland reports that the Thames water supplied by the West Middlesex, Southwark, and Grand Junction companies was of nearly the same quality this month as in September, but that delivered from the same source by the Chelsea and Lambeth companies had improved; the Lambeth water not only surpassing all the other samples supplied from the Thames, but even the water of the Lea delivered by the East London Company. The Lea water distributed by the New River Company was much superior to the best sample of Thames water, but that abstracted from the same source by the East London Company was only very slightly better than average Thames water. All the water abstracted from these rivers was efficiently filtered before delivery, but that of the New River Company contained filmy particles of carbonate of lime.

THE REGISTRAR-GENERAL'S RETURN FOR SCOTLAND:
AUTUMN QUARTER, 1879.

IN completion of our remarks on the health statistics of the United Kingdom for the third quarter of the present year, we now notice the quarterly return of the Registrar-General for Scotland for the period ending September 30 last. In the three months referred to, 31,436 births and 15,115 deaths were registered, from which it appears that the birth-rate has exceeded by ·035 per cent. the average of the corresponding quarter of the ten years immediately preceding, whilst the death-rate has been ·303 per cent. below the average of the third quarter of these years. The births were at the rate of 347 to every 10,000 of estimated population, and represent an annual birth-rate of 3·47 per cent., the registration averaging 164·3 per diem throughout the quarter. The deaths recorded were in the proportion of 167 to every 10,000 of estimated population, and, as the average death-rate of the corresponding quarter of the ten preceding years was 197·3, it will be seen that the mortality experienced during the quarter under review has been unprecedentedly

low. It will be remembered that the death-rate in England for the autumn quarter of 1879 was only 164·9 per 10,000, so that it was a trifle lower than even the exceptionally low death-rate experienced in Scotland. Zymotic diseases caused 298 deaths in Scotland during the quarter, or about 15·7 per cent. of the total deaths assigned to specified causes—a very moderate proportion. Small-pox did not prove fatal in a single instance, but scarlatina was responsible for 109 deaths, and whooping-cough for 160. The month of July was remarkable for a small barometric pressure, very low mean temperature, and a large amount of rain. The greatest rainfall was at Edinburgh, where it amounted to the very unusual quantity of 7·56 inches. During August and September the temperature was slightly below the average; but the other items of climate were normal in August, and in the latter month rather more favourable than normal.

THE LECTURESHIP OF THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

THE Council of the Faculty of Physicians and Surgeons of Glasgow have agreed at their next meeting in December to consider any application which may be made for the Faculty Lectureship this session. The Lectureship, which is open to the whole profession, was established some years ago, mainly for the purpose of stimulating original research. The subject may lie in any department of medicine, theoretical or practical. Professor M'Kendrick, of Glasgow, was the first lecturer; and on the last occasion the position was occupied by Dr. Benjamin Ward Richardson, of London.

OBSTETRICAL SOCIETY OF DUBLIN.

THE opening meeting of this Society for the session 1879-80 took place in the Hall of the King and Queen's College of Physicians, Kildare-street, Dublin, on Saturday evening, November 22. There was a large attendance of visitors and of members. The chair was occupied by the President, Dr. Edward B. Sinclair, King's Professor of Midwifery in the School of Physic in Ireland. Dr. William Roe, Honorary Secretary, read the annual report of the Council, which showed the financial affairs of the Society to be in a satisfactory condition. On the motion of Dr. Thomas More Madden, seconded by Dr. MacSwiney, the report was adopted. The President delivered an address inaugural to the session, in which he reviewed the history of the science of obstetric medicine in Dublin. He spoke of the granting of the degree of *Magister in Arte Obstetriciâ* by the University of Dublin as "the last and crowning act for the advancement" of obstetric medicine. "Thus," he said, "by a touch of her magic wand, our *Alma Mater* has thrown around poor Cinderella a glorious robe, and lifted her from her low estate to a position of social equality with her two imperious sisters. This most gracious and enlightened act on the part of the Board of Trinity College entitles them to our gratitude generally. They have been the first in the race of enlightenment in this direction; and I have no doubt that their example will be followed by other universities. I, on the part of all those who practise obstetric medicine, have to return my grateful acknowledgments to the Board of Trinity College—to tender my most cordial and hearty thanks." In the course of his address Dr. Sinclair also advocated the annual award of a prize of £50 to the author of the best dissertation of the session. The ballot for the election of officers resulted as follows:—*President*: Edward B. Sinclair. *Vice-Presidents*: Fleetwood Churchill and Robert F. Dill. *Honorary Treasurer*: John J. Cranny. *Honorary Secretary*: William Roe. *Council*: John Denham, George Johnston, George H. Kidd, Alfred H. McClintock, and J. Rutherford Kirkpatrick.

DEATH OF DR. CHENU.

DR. CHENU, formerly chief of the Medical Staff in the French army, whose death, at the age of seventy-one, we announced last week, held at the time of his death the office of librarian at the Military School of Val-de-Grâce. While holding this office he compiled, some years since, two works of great importance, "*Statistique de la Guerre de Crimée et de la Guerre d'Italie*." In these he displayed with unflinching determination and courage the shortcomings of the Medical Department of the French Army, and exhibited the various consequences arising from its absolute subjection to the Intendance, some of which consequences were only averted by the direct interference of the Emperor on an appeal being made to him by Baron Larrey.

SANITARY STATE OF DELAGOA BAY AT THE PRESENT TIME.

THE following is an extract of a report by Mr. Farrell to the Colonial Government:—"Situated at the extremity of the low Plateau, extending from the Lobombo Mountains to the sea, Lorenzo Marquez is subject to a fever very trying to European constitutions. Though not often fatal in its results, it is still very weakening and enervating, and its almost certain recurrences expose its victims to permanent loss of health. Promotion of drainage, attention to sanitary decencies, and prudent living, would tend to greatly mitigate the evil. Though the Portuguese authorities have commenced to drain the surrounding swamps, and have laid out a new township on the Berea hill, much remains to be done before Lorenzo Marquez is made a safe residence, even for those satisfied to live carefully and by rule, avoiding the excesses now so commonly indulged in. The belt of country between a line about fifteen miles west of the town and one drawn parallel with it and about twenty miles east of the Lobombo range, is infested by the 'tsetse fly,' fatal to all animals of burden. This district is the great difficulty in the way of commercial intercourse, and up to the present time has confined trade to the actual requirements of the country near the town, and to a portion of the Swazi and Amatonga tribes further south."—*Standard and Mail*, October 25, 1879.

BOROCITRATE OF MAGNESIA AS A SOLVENT OF URIC ACID CALCULI.

DR. KOEHLER, of Kösten, Germany, recommends (*Berliner Klinische Wochenschrift*, November 3, 1879) the above salt in cases of gravel, or probable uric acid calculus. It is prepared by dissolving boracite, a natural borate of magnesia, which is found at Stassfurt, and hence is also called Stassfurtite, in citric acid. It forms a white powder with a sourish taste. He gives it mixed with white sugar (one to two). The dose is a large teaspoonful (*Kaffeelöffel*) in half a tumbler of water three times a day.

PHYSIOLOGICAL ACTION OF CARBOLIC ACID ON THE NERVOUS SYSTEM.—Dr. Sumner Stone, in his graduation thesis founded upon an experimental investigation, arrives at the following conclusions:—"In large doses carbolic acid may cause immediate paralysis through spinal depression. Smaller doses cause clonic convulsions of spinal origin. Convulsions and paralysis may exist at the same time in one animal, the posterior extremities being paralysed first. Neither motor nor sensory nerves nor muscles are affected by carbolic acid. Reflex action with small doses is first diminished through irritation of Setschenow's centre; it is then increased through its subsequent paralysis, the irritation explaining the ordinary occurrence of apparent muscular weakness in the early stage of the poisoning, while the convulsions follow its paralysis. Larger doses may paralyse Setschenow's centre immediately. It is probable that the spinal action of carbolic acid is confined to the motor columns."—*Phil. Med. Times*, September 27.

QUERIES IN MEDICAL ETHICS.

(Continued from page 591.)

Q. Is the medical man, in his treatment of disease, justified, under any circumstances, in giving way to the prejudices of his patient, or in conniving at such of his vices or errors of conduct as may be implicated in the complaint with which he is affected?

A. While you ought never to compromise the claims of truth, rectitude, and morality in prescribing and laying down directions for a patient, there is on some occasions a policy in falling in with what you may know to be the bent of his prejudices and predilections. By doing so, you will not only gain credit for skill and amenity of conduct, but will sow the seeds and foster the growth of confidence, which will really far more effectually promote the object you ought to have in view—namely, the comfort and recovery of your patient—than if you adopt a course which, though in other respects more dignified or scientific, would tend to ruffle the grain of his prejudices or idiosyncrasies. Some of these may, in all likelihood, be perfectly innocent and excusable, and although others may be the result of ignorance or misapprehension, or even of vicious or ill-regulated habits of body or mind, yet, as they form part and parcel of your patient's constitution—with which, as a whole, you have to deal, both in its bodily and mental characters, which are inseparable,—they cannot without danger be ignored, but must be judiciously taken into account in the treatment to be pursued. The restoration of your patient to a position of health and safety, in the first instance, ought to be paramount to every other consideration. *Pari passu* with, or subsequent to, the accomplishment of this, you should, as a man of principle and humanity, with all the requisite delicacy, yet firmness, point out, and show how they may be rectified, whatever errors, whether in hygiene, morals, or general conduct, you may perceive to have been involved in the causation or aggravation of his complaint.

Q. What is to be understood by the term "quackery," and how does it come to abound more in the medical than in other professions?

A. A quack, according to Dr. Johnson, is a tricking practitioner in physic or any other art; but the word is generally applied to boastful, ignorant, and mercenary practitioners in medicine, though it would be difficult to concentrate into one word all that is comprehended by the profession under the term. It is evidently more an offence in the ethics than in the practice of medicine, and does not consist so much in any deviation from a particular standard of doctrine or treatment, as in the mode in which such deviation is carried out. Like the word "east" or "west," it has more of a relative than a fixed and definite meaning, and its applicability varies according to time, place, and other circumstances. The very etymology of the word—"quack-salver" (German for quicksilver)—demonstrates this, inasmuch as the denial of the virtue of mercury and its disuse in practice now would be considered quackery, almost as much as its eulogy and use were considered so in the time of Paracelsus.

Medical men, there can be no doubt—and this is more especially true since the triumph of the Baconian system of philosophy,—have emancipated the healing art from the trammels of the scholastic or Aristotelian school, to which it had submitted for so many centuries. Medical men entertain opinions, and of course modify their practice accordingly, the most diverse possible—a circumstance not difficult to account for even in the case of intelligent and well-constituted minds. In Medicine there is not, and cannot be, as in the Church, with its divinely promulgated and authorised code of doctrines, any unalterable creed or system of faith: its field of belief is boundless and variegated as the face of nature itself. There is here no excommunication on account of heresy or heterodoxy. If it were necessary to substantiate the truth of this by example, I might refer to that of a highly talented and esteemed physician in this town, who denied—what would, if anything can, be held as the cardinal article of the medical creed—the Harveian doctrine of the circulation, maintaining his opinion in a learned treatise dedicated to Abernethy, published in 1816. All are listened to with respect and consideration, and have the usual avenues of publicity thrown open to them, provided they give expression to their views in a courteous and ingenuous manner.

Even those very systems of empiricism and of quackery which happen to be in vogue at present, and the abettors of which exclaim so loudly against the profession, have been, or are in course of being, fairly canvassed and tested, and are fully accredited for whatever experience may have proved them to contain either of theoretical or of practical value.

It is in this manner that to the regular and catholic profession itself, as the last, because the most (and frequently the only) competent court of appeal, all doubtful and disputed subjects in medicine must come for adjudication. "It is a fundamental canon in medical ethics," says an able writer in the *British and Foreign Medical Review* for April, 1850, page 302, "that the art shall be practised solely by persons duly educated; and that all experimental results in therapeutics, and all new theories and methods of cure, shall be brought before the tribunal of professional opinion for adjudication as to their merits; and that they shall be sifted, examined, canvassed by the profession only, through its educated members or by its literature." The former part of this canon requires, as I shall presently endeavour to show, some qualification, or, at all events, explanation. Nor can I quite agree with this writer in the position he subsequently lays down—namely, that "every man duly authorised has the undoubted moral right to practise his art to the best of his judgment; and if he decide to practise it homœopathically, or hydropathically, or mesmerically," the writer "does not see on what grounds he should be prevented" (page 305). According to this doctrine, any method of practice, however irrational in itself, however dangerous to the public, however discreditable or detrimental to the profession, and however deliberately and strongly it may have been condemned by its highest collective authority, is perfectly open to the choice of any member who may see fit to adopt it. Such a canon certainly does not tend "to maintain the dignity and welfare of the profession," and is scarcely in accordance with the oath of initiation taken at any college or licensing corporation in the kingdom; and it would, moreover, open up a door within the profession itself for the indulgence of every species of singularity, temerity, self-laudation, cupidity, and dishonesty—in short, of quackery in many of its worst forms.

In the profession of Law there is even still less field for quackery, in the sense in which the word is used in Medicine. No mere pretence, however specious or artful, can there stand in stead of that real and thorough professional knowledge and skill which are attainable only by intellect, industry, and experience on the part of the practitioner. Whatever inconveniences (and to a certain extent they are beneficial and unavoidable) attach to the law in respect to the slow, complicated, and expensive nature of its movements, it has this great advantage—that it is to a great extent self-adjusting, and not only has the power of effectually excluding from its courts all such as are morally, intellectually, or otherwise unfit, but that the mistakes committed by its members generally carry the means of their detection and punishment along with them, and can, as regards their consequences, be rectified by that self-reviewing power which belongs to the law.

In Medicine, on the other hand, the temptation and the facilities for the exercise of quackery are very great. The readiness with which an unprincipled person, however ignorant he may be of all that constitutes rational medicine, if possessed of a certain amount of shrewdness and knowledge of the world, can take advantage of that love of life which is inherent in human nature, and play upon the credulity, vanity, and love of the marvellous, which, together with ignorance of the human constitution and inability to discriminate between the true and the spurious or false in science, may with perfect truth be said to characterise the great mass of mankind,—this, along with the evident impossibility of stamping his acts, as in the case of the other two great professions, with the stamp of invalidity, and the rich harvest which it is well known can be reaped by a systematic and vigorous prosecution of these dishonourable arts,—these considerations, without alluding to others that must occur to anyone conversant with the subject, will easily account for the province of medicine, beyond all others, being liable to be overrun by this species of smugglers and freebooters.

According to the definition of quackery which has been given, it by no means follows, however, that every unlicensed practitioner of medicine belongs to this class, or that the circumstance of his holding a licence or diploma will of

itself be sufficient to shield a person against the dishonourable imputation. The idea of prohibiting all unlicensed practice of medicine would be as absurd and impracticable as it would be impolitic and unjust. Every person arrived at the years of discretion, and particularly when past the mature period of forty (at which age it is said that everyone who is not a fool must be a physician), must to a greater or less extent practise in reference to himself or to others at least one most important branch of medicine, that of hygiene; and it often happens that individuals, from a peculiar natural sagacity, and from having, perhaps accidentally or unavoidably, had their attention specially directed to a particular department of the healing art, have acquired a degree of skill and tact in the treatment of some disease or class of diseases, by which, if they are actuated by disinterested and noble motives, and do not go beyond the depth of their experience, they may be the means of doing a large amount of good in their respective spheres of action. To clergymen and landed proprietors in remote and country districts, and in many instances to their wives or female relatives, this observation particularly applies.

Moreover, I would even go the length of saying, however paradoxical it may appear, that there are acts which, on the part of a medical man, would be justly characterised as quackery, but which, in reference to those who are without the pale of the profession, are not in themselves liable to this designation, and can only be judged of by the common rules of commercial policy. For instance, the concealment, for the purpose of pecuniary profit, of the composition or source of any medicinal substance, or of any process or mode of treatment which he may have discovered or even acquired by purchase, though quite defensible in the case of a layman, or even of a druggist, would not be considered honourable on the part of a member of the profession, because it is calculated to hurt the interests of his brethren, and is a breach of that contract—tacit and implied, if not, indeed, in some cases distinctly and openly expressed—by which he agrees to make common cause with the profession, and to render back whatever interest he may be able to its general treasury of knowledge and experience, as well as of public influence, from which he derives, so to speak, the capital which constitutes his own stock-in-trade.

On the other hand, wherever undue pretensions to knowledge and skill are made by the hanging out, as it were, of false colours, and where ignorance, cupidity, and want of principle go hand in hand with the practice of the healing art, the guilt and stigma of quackery are incurred, whatever may be the position, titles, or legal qualifications of the person so offending.

As instances of the false colours alluded to may be mentioned the publication and circulation, *ad captandum vulgus*, of pseudo-scientific pamphlets or works on medicine, which really contain nothing that is either new or valuable to the profession; the advertising, or allowing to be advertised, one's name in connexion with exaggerated or unproved statements, or even with such as may be unchallengeable, when put forth for the evident purposes of rivalry, popularity, and gain; or the employment, from self-interested motives, of a pompous, self-laudatory, or mysterious and learned manner and language in the presence of those who are incompetent to judge as to the validity of the qualifications thus laid claim to.

On this aspect of the subject, the *New York Medical Gazette* for July, 1850, very pertinently remarks:—"He who dares to give remedies of which he knows little, in diseases of which he knows less, and applies them to living beings of whose structure or functions he knows nothing, is demonstrably a quack by reason of his ignorance and temerity; while he who imposes upon the public by seeming to be what he is not, who, for the sake of filthy lucre, sacrifices principle, honesty, conscience, in the sale of nostrums or specifics promising to cure incurable diseases, and exacting extortionate fees from the afflicted by taking advantage of their ignorance and credulity, is a quack because he is unprincipled. Such knaves abound in the profession all over the world, and they are such, whether with or without diplomas, and to whatever school they belong: they are all alike, whether called allopathists, homoeopathists, or chronothermalists, or whether they employ botanical, mineral, electrical, galvanic, or metaphysical remedies. Their ignorant and unprincipled conduct constitutes them quacks; and to protect the public from being plundered by such is

the only and all-sufficient reason for the warnings against quackery which the regular profession are ever reiterating through the public Press."

Whether remarks as strong as these are still applicable to America, where quackery has a more favourable soil than here, I do not know, but in this country recent legislation and public opinion have done so much to keep down its growth, that those solemn warnings and denunciations against quackery, which used to form one of the staple ingredients of medical journalism, are now rarely to be met with.

Two simple provisions in the Medical Act have done more to protect the profession and keep down the evil influence of quackery than all the fulminations and penal inflictions that had been hitherto tried. And these two provisions, so reasonable and appropriate in themselves, may be justly said to have been long the custom or common law of the country, so that they had only to be by Parliament endowed with the force of statute law. The acute framer of the Act—*rem acu tetegit*—has hit upon a safe and speedy remedy for the cancer which was poisoning and destroying the life of the profession. These two provisions are, first, that no man can assume or use a title indicating that he is a medical practitioner unless he is really possessed of such in virtue of a diploma or licence granted by some duly authorised corporation; second, that no one who is not so possessed, and publicly registered accordingly, shall be entitled to recover, by law, compensation for his services, or to grant certificates of the cause of death of his patients, or to hold any public medical appointment.

The benefits resulting to the profession from these two clauses have been incalculably great, and they have been so just too, and so advantageous to the public, that no dissatisfaction has ever been found with the working of the Act.

(To be continued.)

FROM ABROAD.

PROFESSORS BROWN-SÉQUARD AND MAYET ON RECTAL ALIMENTATION.

ALLUDING to an article by M. Michel, which has lately appeared in the *Gazette Hebdomadaire*, giving an account of the trials of rectal alimentation that have been made, and in which he came to a conclusion unfavourable to the absorption of the nutritive matter of the substances injected, Prof. Brown-Séquard observes, in the number of the same journal for November 14, that, however applicable this conclusion may be to enemata of milk, broth, eggs, or defibrinated blood, it certainly is not so with regard to enemata of meat and pancreas. The practical question is not whether the large intestine does or does not secrete juices endowed with digestive power. In a therapeutical point of view the question at the present time is to know whether, on mixing with the alimentary matters either gastric juice or pancreatic juice, and injecting the mixture into the intestinal canal, digestion of these matters will take place, with absorption of the product of digestion. The experiments and clinical observations of Leube and of Fiechter, and those of Prof. Brown-Séquard himself, place the fact quite beyond contradiction; and experiments showing that the large intestine is not possessed of digestive functions do not contradict this assertion. It is a question of artificial digestion, in which the large intestine may be as inert as any vessel in which this might be conducted.

Prof. Brown-Séquard refers to several cases—some published, and others not—in which he has by means of enemata of meat and pancreas been able to keep patients for days and weeks (in one for more than three months) without loss of weight and strength. The quantity of meat required, when a patient has to be maintained solely in this manner, is at least 400 to 500 grammes per diem, and of pancreas from 150 to 200 grammes—these quantities serving for two daily enemata. When the pancreas is quite fresh, the digestion of these substances is so complete that no traces of their presence can be found in the well-formed fæces which the patient passes—the tissues of both the gland and the flesh having been evidently digested in a complete manner.

In the number of the *Gazette* for November 21, Prof. Mayet, of Lyons, states—"I have employed this means in the Lyons hospitals for six years, but with certain precautions, which I believe to be of considerable importance. Why should we inject the tissue of the pancreas, which contains unabsorbable substances, and meat in a state of nature? Even chopped up and triturated, such a mixture might cause irritation of the intestine, and not be easily retained. To obviate this inconvenience, I have the pancreas bruised in a mortar with tepid water at about the temperature of 37° C., and then press the pulp obtained in a cloth. The liquid so procured is intimately mixed and triturated with the flesh without fat, which has been chopped and separated from all fibrous parts, and with the yolk of an egg. The product is left to stand during two hours, keeping it at the same temperature, and is then thrown into the rectum, first cleared out by a simple oily enema. By this procedure we have the advantage of injecting, not substances in a state of pulp which have not been digested, and which may be rejected, but alimentary substances that have undergone, at the temperature of the economy, the action of the dissolving ferments, unmixed with the *débris* of useless tissues, and therefore lending itself much better to rapid and easy absorption."

DEATH FROM CHLOROFORM.

In the Section for Surgery at the recent meeting of German Naturalists and Physicians (*Deutsche Med. Woch.*, October 25), Privat-docens Sonnenburg related two cases of death from chloroform which had occurred in Prof. Lücke's clinic. Both were drunkards, and only a small quantity of perfectly pure chloroform was employed. Death in both occurred suddenly just before the operations were begun, through arrest of the heart's action, very superficial respiration continuing long afterwards. No vomiting or signs of asphyxia or collapse preceded death, and all attempts at recovery proved fruitless. The subject of the first case was a very powerful man, thirty-three years of age, who had formerly suffered from delirium tremens and typhus, and now was about to be operated upon for fistula. An incision into the skin after the pulse had stopped exhibited no peculiar condition of the blood, and no autopsy took place. The other patient was a broken-down person with cancer of the elbow, who for the past year had been an inmate of a lunatic asylum. The only point of importance observed at the autopsy—performed before the commencement of putrefaction—was the existence of air-bubbles in the blood of the sinuses and the vessels of the pia mater, in that of both sides of the heart, and in the pulmonalis. The substance of the heart was flaccid, but not diseased. Prof. von Recklinghausen met with a similar case soon afterwards, in which the gases mingled with the blood were even in larger quantity. Prof. Pirogoff had seen a case in which gases were observed in the blood of a chloroformed person during life. A man (whether a drinker or not is not known) was chloroformed in order to undergo an operation, when the heart and respiration became suddenly arrested. Half an hour afterwards, among other means for his restoration, he was bled, and gas was observed in the stream which issued from the vein. Half an hour later he made his first independent inspiration. It is well known that, in the early period of the employment of chloroform, gas was not infrequently found in the blood of those who had died from its administration, its presence in the blood having even been recognised as characteristic of death from chloroform. Unfortunately, it is impossible to decide in most of these cases how far putrefaction, or aspiration of air through large veins that had been divided, may not have contributed to this appearance. That recent autopsies have usually only furnished negative results in this respect may in part be explained by the fact that a small quantity of air in the blood may easily be overlooked, while undoubtedly it suffices for there to be only a small quantity of air in the blood to produce the most prejudicial effects. According to all probability the gas found in the blood consists chiefly of nitrogen. How the gas gets free in the blood—whether from a mechanical extrication of the nitrogen through the action of the chloroform, whether from the occurrence of special changes in the blood-pressure, or the manifold variations in the respiration during the chloroform-narcosis—is by no means clear. In any case, gas may become free in the blood when the blood-pressure sinks below certain limits. Chloroform-narcosis causes a depressed blood-pressure through-

out the whole vascular system, by the diminution of the activity of the heart's action and the respiration. In the great veins and right heart, where it already is least considerable, it sinks to the lowest point, and these are just the localities wherein the gas-containing blood is found in those dead from chloroform. Professor Lücke referred to the experience of the physicians of lunatic asylums, showing that sudden death is not rare during the action of chloral in drunkards. In Strasburg, owing to the accidents that have happened to these subjects from chloroform, it has ceased to be employed, ether now being used, after a preliminary injection of morphia, with the best effect. Prof. Czerny observed that the gas in the blood was probably chloroform, and its being nitrogen was only conjectural. Prof. Lücke observed, however, that at the autopsies the odour of chloroform was absent. Prof. Socin drew attention to the frequency with which death is caused in chloroform-narcosis and acute alcohol-intoxication from the aspiration of the contents of the stomach, and recommended that whenever inclination to vomit manifested itself, the patient should be placed on his side with his head hanging down. Prof. von Langenbeck remarked that drunkards not infrequently, when the atmospheric temperature is high, die quite suddenly, without the operation of any other outer cause.

REVIEWS.

The Habitation in Relation to Health. By FRANCIS S. B. F. DE CHAUMONT, M.D., F.R.S., Professor of Military Hygiene in the Army Medical School, Netley. London: Society for Promoting Christian Knowledge. 1879.

THE foregoing is one of a series of Manuals of Health published by the Society for Promoting Christian Knowledge. The author, whose experience in matters of hygiene is well known, has laid down in the 128 pages of this little book a few of the most important rules to be observed by those who wish to keep their dwellings healthy. The earlier chapters, which treat of the site to be chosen for building, and the materials, etc., of which the house itself is to be built, are scarcely applicable to the general public, who have, as a rule, to take their houses as they find them; but in those which deal with sewage arrangements, water-supply, foul air, and the like, several valuable hints will be found. The "House in Sickness" is also a chapter which may be especially commended for the few plain directions it gives for preventing the spread of disease.

The Advantages and Accidents of Artificial Anæsthesia. A Manual of Anæsthetic Agents and their Employment in the Treatment of Disease. By LAURENCE TURNBULL, M.D., Ph.G., Aural Surgeon to Jefferson Medical College Hospital, etc. Second Edition, revised and enlarged, with Twenty-seven illustrations. Pp. 322. London, 1880.

THE rapid sale of the first edition of this work has induced the author to revise the subject-matter and re-write several of the articles for the present issue. A number of new and original experiments have been made and recorded, especially some relating to hydrobromic ether; the boiling points and relative time of evaporation of the several agents employed in mixed anæsthetics, and the best proportions in which ether, alcohol, and chloroform should be united, have been determined; and there is a continuation of the experiments on the action of anæsthetics on the blood, and the use of the spectroscope in relation to these agents, more especially nitrous oxide. The value of such a work as the present is unquestionable, but the materials are not well arranged, and there are several inaccuracies in matters of detail which might have been avoided. Still, the book contains a great amount of useful information on the nature and use of anæsthetics, applied externally or internally, in vapour, or in ordinary modes of administration. The following quotation expresses the author's own opinion on the choice of anæsthetics:—"For all minor operations in surgery, at the house of the patient or in private office (when the cost of the anæsthetic is of no consequence, and where disagreeable odour is to be avoided), nothing has yielded us such satisfactory results as *hydrobromic ether*. For all dental operations (excepting tedious and protracted dissections on the mouth) the safest anæsthetic is *nitrous oxide gas*, which, in

its results, is exhilarating and most satisfactory, and, with but little effort, produces complete insensibility to pain, and is most rapidly eliminated from the system. For dangerous and protracted operations, the agent which has been employed in this city" [Dr. Turnbull does not state what city] "and in the United States is the pure ether: the proofs of its safety are full and complete. Chloroform, as an anæsthetic, has a long and painful record of valuable lives lost from the time of its introduction to the present day, so that no one is justified in using it unless the ordinary agents specified above fail him, or unless he has to employ the actual cautery; even with little children it is not absolutely safe, and a reference to the body of this work will show that numerous deaths follow its use. Every combination of chloroform, its various modes of administration in both large and small quantities and mixed with other agents, have been experimented with, but those who have employed it most have, when its positive fatal action is seen, had at last to resort to ether."—(Page 306.)

As instances of some of the inaccuracies observable in this book we may mention that the words "sulphuric ether" and "ether" are used synonymously without any explanation being given, although it is well known to scientific chemists that *sulphuric ether* is a totally different substance from ether; and although chloral and chloral hydrate are distinguished by the author, he sometimes confounds them together, for he alludes to a person *drinking* chloral, and to another person as taking chloral in doses of *thirty grains* three times a day, apparently forgetting that, though chloral is a fluid, it is chloral hydrate which is solid.

SHORT NOTICES OF FOREIGN JOURNALS, ETC.

Giornale Internazionale delle Scienze Mediche, diretto dal Dottore Antonio Raffaele, Professore pareggiato nella R. Università di Napoli. (*International Journal of the Medical Sciences*, edited by Dr. A. Raffaele, Professor in the Royal University of Naples.) Naples, 1879.—The present number of this Journal contains a great variety of materials, both original and selected, and many of the former are distinguished by great labour and research. Among them is one by Dr. Ferruccio Tartuferi, of Bologna, on the "Cellular Forms composing the Epithelium of the Tarsal Portion of the Human Conjunctiva"; one is a case of "Latent Ulcer of the Duodenum with Perforation"; a third is on "Thoracic Concussion (*Commozione Toracica*), a condition of disturbance of the contents of the thorax without visible lesion"; one is a "Contribution to the Study of Cæsarian Hysterotomy"; one is on the "Pathogenesis and Treatment of Detachment of the Retina"; and one on the "Prophylaxis of Venereal Diseases."

Rivista Sperimentale di Freniatria e di Medicina Legale in relazione con l'Antropologia e le Scienze Giuridiche e Sociali. Fondata dal Professore Carlo Livi. (*Experimental Review of the Treatment of Insanity; and Forensic Medicine in relation to Anthropology and the Juridical and Social Sciences*. Established by Prof. Carlo Livi). Reggio-Emilia, 1879.—The present number of this Journal, conducted, as usual, by a number of distinguished Italian professors, contains original articles on the "Minute Anatomy of the Bigeminal Eminences of Monkeys"; on the "Hypnotic Value of Lactic Acid and of the Lactate of Soda in the Insane"; and "Clinical Researches on the Accidental Diseases of the Insane." The medico-legal department contains original articles "On the Argument of the so-called Moral Insanity"; on the "Toxic Action of Hydro-sulphuric Acid"; and "A Case of Death by Self-Strangulation." There are besides a great number of reviews and clinical notes collected both from Italian and foreign sources.

INSPECTION OF MEAT IN PARIS.—The Préfet de Police has just issued an important decree. No butcher's meat or pork, whether fresh, salted, or smoked, is for the future to be admitted into Paris until it has been submitted to inspectors specially employed for this purpose. Exception to this is only to be made for fresh meat weighing less than three kilogrammes, and salt or smoked meat weighing less than five kilogrammes. Meat is prohibited from being brought in except at eight specified gates. All meat recognised as unfit for food is to be immediately destroyed.—*Gaz. Hebd.*, November 21.

GENERAL CORRESPONDENCE.

THE HISTORY OF TYPHOID.

LETTER FROM DR. A. P. STEWART.

[To the Editor of the Medical Times and Gazette.]

SIR,—Allow me to thank you very cordially for the aid you have so kindly and spontaneously given me in my struggle against the attempt to bury me alive; and to say a few words respecting the history of the distinction between typhus and typhoid fever. The fullest and most circumstantial account of it is to be found in two letters—one by Dr. Murchison, the other by myself—published in the *Medical Times and Gazette* on December 19, 1857 (n. s., vol. xv., p. 642), and March 13, 1858 (n. s., vol. xvi., p. 275).

In 1836, while Drs. Gerhard and Pennock were carefully observing an epidemic of typhus and the ordinary endemic typhoid in Philadelphia, my friend and colleague, the late Dr. Andrew Anderson, and myself were studying an epidemic of typhoid and the ordinary endemic typhus—just then passing into a terrible epidemic—in the Glasgow Fever Hospital. Dr. Murchison, in the letter above referred to, correctly says: "Although Dr. Stewart's observations were not published till 1840, he seems to have been convinced of the distinctness of the two fevers as early as 1836, even before the researches of Messrs. Gerhard, Pennock, and Shattuck." I did not see the very able papers of Gerhard and Pennock in the *American Journal of Medical Sciences* (vol. xix. and xx.) for 1837 till long after the publication of my paper in October, 1840, so that our respective works were completed independently of each other. Hence the absence of any allusion by me to the American discoverers. As regards the theory which now for the first time affirms John Goodsir to have been the originator of the modern doctrine in reference to continued fevers, I suppose that had that highly gifted physiologist been still alive, no one would have been more surprised at it than himself. The only paper upon this subject by him that I can discover is one that was published in the *Edinburgh Monthly Journal* (vol. ii., p. 353) in 1842—i.e., two years after the publication of mine. It begins as follows:—

"Without entering upon the question, as to whether the subject of the present paper constitutes a distinct species of disease, or be merely a form of the ordinary continued fever—a question which I am quite satisfied will never be answered, so long as each pathologist confines the inquiry to the fever of his own district, without connecting with it the consideration of those forms of fever which occur in every separate district of a country or continent,—I shall proceed at once to describe a lesion which I have observed some time ago in a disease which I was led to consider as typhous or continued fever."

This was in 1842; but in 1836, we in the Glasgow Fever Hospital were led by the same diseased condition of the intestinal glands which Goodsir describes, taken in connexion with the symptoms during life, to consider that disease as *not* typhus, but typhoid fever. I am not aware that in 1840 any persons in this country besides Dr. John Reid and myself were convinced of the specific difference of the two diseases.

I am, &c.,

Grosvenor-street, W., Nov. 22.

A. P. STEWART.

UNIVERSITY OF EDINBURGH.—The number of students who have already joined the medical classes for the current session is 1138—viz., first year, 337; second year, 277; third year, 257; fourth year, 267—being 96 more than on the corresponding day of the session last year.

INGENIOUS EXTEMPORISED SPLINT.—Dr. Ulrich, at the Philadelphia Medical Society, described a mode of treating fracture of the leg which he believed to be original. He takes a piece of iron hoop long enough to go down the outer side of the limb, and, bending under the foot, passes up the inner aspect to the same distance. This is to be applied accurately to the contour of the *sound* limb, and then taken off and turned around and put on the broken leg, where it serves both as a guide and as a lateral splint with the ordinary roller-bandage. It can be employed when other apparatus cannot be obtained.—*Phil. Med. Times*, Sept. 27.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, NOVEMBER 18.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

MULTIPLE SARCOMA OF THE SKULL.

DR. ABERCROMBIE showed this specimen, taken from a child aged four years, who had been under the care of Dr. Gee at the Children's Hospital, Great Ormond-street. The family history was good. For about three months before admission patient had had anorexia, and a lump began to be seen on the head. On her admission there was found a small softish swelling over the right parietal region. There was also a small lump in the left iliac region, and the child was extremely anæmic. After two months the swelling on the head rapidly increased, and two others appeared on the left side of the cranium. There was also some swelling of the left eyelids. Optic neuritis set in, going on rapidly to complete blindness. Patient died cachectic three months after admission. The specimen shown presented three large rounded tumours, situated on the right parietal, left parietal and left frontal bones. They were of a deep purple colour, the periosteum was stretched over them, and they were elastic and semi-fluctuating. There were, besides, many small purple slightly raised patches here and there over the outer cranial surface. The inner plate of skull was perforated where the tumours had reached any considerable size, and showed a honeycomb appearance at the site of some of the smaller tumours. There were also found several similar tumours of a small size, connected with the bones at the base of the skull, and one had extended into the cavity of the left orbit. There was also a small tumour in each orbit. The dura mater was abnormally adherent over each of the tumours which had perforated the inner plate, but its inner surface was everywhere quite smooth. There was found also a purple soft vascular tumour of the size of a marble in the white substance of the left occipital lobe of the brain. A tumour similar to those of the skull had invaded the upper part of the sternum. All the ribs were invaded by the new growth, presenting irregular purple swellings. The deep glands from the brim of the pelvis to the level of the second lumbar vertebra were swollen, soft, and purplish; and a similar gland was found in the right iliac fossa. Microscopically, the growth was found to consist of small round cells, with a scanty stroma. The growth arose from the deeper layers of the periosteum, for fibrous bands could be seen passing from the periosteum covering the tumours down to the bone. The speaker remarked on the fact that the abdominal and thoracic viscera were unaffected.

Mr. BUTLIN had collected several cases of sarcoma of skull. They were rather rare in very young children, but when they did occur it was usually on the vault of the cranium. They were almost always multiple, and rounded, with very few myeloid cells. They generally grew from between the layers of the skull, and not from below the periosteum. It had been stated in *Virchow's Archiv* that these tumours killed usually not by pressure on the brain, but by the development of secondary growths in the lungs and liver, etc.

Mr. WALSHAM had examined several specimens of tumours of the skull regarded as sarcomatous, and had found them to be really medullary carcinoma.

Dr. Abercrombie's specimen was referred to the Morbid Growths Committee.

PRIMARY SARCOMA OF LIVER.

DR. COUPLAND exhibited a liver affected with sarcomatous growth which was manifestly primary, no other organ in the body being diseased. The liver was uniformly enlarged, weighing 300 ounces; and the new growth, which was widely diffused, presented patches of black and grey pigmentation. It was of tolerably firm, elastic, and fleshy consistence, contrasting markedly with what liver-tissue there remained, and exceeding this in amount. There was no similar growth in any part of the alimentary tract, nor in the pelvic organs; and, beyond basic engorgement and compression, the lungs were healthy. The case was that of a

married woman aged thirty-three, who died in the Middlesex Hospital, under the care of Dr. Greenhow, on October 3, 1879, after an illness of about seven weeks' duration, characterised at first solely by pain in the right hypochondriac and lunbar regions and the right shoulder. When admitted, she did not appear to be very ill; but, after a week's stay, her illness rapidly took a downward course, the margin of the greatly enlarged liver becoming more nodulated under observation. The nature of the hepatic change was peculiar and difficult to determine; for side by side with a type of structure obviously carcinomatous, and plainly evolved from the gland-cells, there were portions as plainly sarcomatous, composed of whorls of spindle-cells, many of which were pigmented, and, in addition to much free blood-pigment, gave rise to the black patches observed on the surface and in the substance of the organ. Not inclined to adopt so heterodox a view as that the spindle-cell tissue was the outcome of a primary epithelial change, Dr. Coupland preferred to believe that this was an instance of an "acute cancer" (in the general sense) of the liver, in which the morbid process affected both the stromal connexion and the epithelial elements of the gland. The case thus had bearings on general pathology; and, whatever its true interpretation, it was singular (1) in the character of the new formation; (2) in its limitation to the liver, not infecting even the nearest lymphatics; (3) in its rapid evolution; and (4) in its widespread diffusion within the organ itself. Dr. Coupland remarked on the extreme rarity of primary sarcoma of the liver, the only case he could find on record being one reported by Frerichs. Sarcoma of the liver often occurred secondarily to melanotic cancer of the orbit. He had not examined the orbits post-mortem in the case from which his specimen was taken, but the woman had never complained regarding her eyes. By Dr. Coupland's request, the specimen was referred to the Morbid Growths Committee.

DWARFING OF THE TIBIA FOLLOWING DETACHMENT OF THE LOWER EPIPHYSIS.

The PRESIDENT exhibited a living child, thirteen years of age, showing the above condition. The lower epiphysis of the tibia had been detached three years ago, and the tibia had not since then grown fast enough relatively to the fibula, so that the latter was about one inch longer in proportion than the tibia, and had consequently pushed the foot over to the inner side. This was the first instance he had seen of such a condition in the leg, though he had seen it in other bones.

Mr. RIVINGTON remarked that the fracture in the case exhibited seemed to him to have been rather above, than at, the line of attachment of the epiphysis, though, if it were, as he imagined, the effect would probably have been the same.

FATTY DEGENERATION OF THE HEART, APPARENTLY RESULTING ACUTELY FROM HÆMORRHAGE.

DR. GOODHART exhibited this specimen, taken from a child six years old, who was admitted into hospital on the seventeenth day of an attack of typhoid fever. About a fortnight later she had severe hæmorrhage from the bowel; and she also had epistaxis before death. Her temperature had reached 105°. Post-mortem, in addition to the intestinal lesions, the heart was found to present very marked fatty degeneration; and the exhibitor was inclined to trace this to the antecedent hæmorrhage, rather than to the fever. So the heart was usually found in a state of fatty degeneration in idiopathic anæmia. He had seen four other cases of a similar condition of the heart after hæmorrhage. In reply to Mr. Kesteven, Dr. Goodhart said that microscopic examination of the heart showed, not conversion of the muscular substance into oil globules, but the granular molecular disintegration usually called fatty degeneration.

SUPPURATIVE MYOCARDITIS IN SCARLATINAL NEPHRITIS.

DR. GOODHART also exhibited this specimen, taken from a child three years and a half old, who, in the course of scarlatinal nephritis, had galloping action of the heart without any bruit. Post-mortem, the left ventricular wall was found thickened by a diffused purulent infiltration extending from the auricular attachment nearly to the apex. There were only very few such cases on record.

DR. BARLOW thought the specimen an important one as probably explaining the cause of acute dilatation of the heart in some pyrexial conditions—a subject on which Dr.

Goodhart had contributed a paper recently in the *Guy's Hospital Reports*. He (Dr. Barlow) had himself lately seen an out-patient showing, three weeks after scarlet fever, a quick and irregular action of the heart and displacement of the apex without any bruit. The child at once had ether, and afterwards digitalis, with rest in bed, and in a week the heart's apex came within the nipple line. But soon afterwards right hemiplegia suddenly supervened. He believed that in this case there had been acute dilatation, such as had been described by Dr. Goodhart, that thrombosis had taken place, and a small clot had afterwards been detached.

Dr. THOROWGOOD had, a few hours before the meeting, seen a child who had recently had scarlatina, whose heart was acting with undue force, the apex being displaced towards the left.

Dr. SAMUEL WEST said that, since Stokes had referred to the subject, little attention had been paid to these interesting cases of acute dilatation of the heart. He himself had seen several instances occurring in acute febrile diseases, as in acute rheumatism. In one case he had found, post-mortem, that the heart showed an infiltration of connective tissue. Some cases of sudden death in acute rheumatism might be due to this acute dilatation, a pathological explanation of which might be supplied by Dr. Goodhart's specimen.

Dr. EWART inquired whether the condition was supposed to have resulted from the formation of pus at certain parts as the result of embolism of the vessels, or from a diffuse inflammation.

Dr. GOODHART replied that the softening was most marked towards the base, and therefore the condition might have started with embolism near the auricular appendix. There was, however, a well-known tendency to suppurative inflammations in scarlatina, though muscles were very rarely so affected. In the specimen the pericardium and endocardium were quite healthy.

PECULIAR RASH ON TONGUE.

Mr. BARKER showed drawings and diagrams illustrating two cases that had been under his observation for some time. The patients were both children. The rash they presented on the tongue, though perhaps not very rare, had not been hitherto sufficiently described. It was exceedingly erratic as to form, but it was usually circular, and it advanced with great rapidity, developing in a few hours from a small whitish speck to a crescentic band or ring the size of a shilling. Intense itching and discomfort, with a very copious flow of saliva, attended its development. It was always seated on the dorsum of the tongue, and was slightly raised above the surface. It resembled ringworm very closely in appearance, but repeated microscopic examinations had never lent any support to the idea that it was ringworm. The same parts were often re-invaded after a short time. There was no evidence of distinct inflammation. On only one occasion, when scrapings from the tongue of one of the patients were examined in hospital, was anything like cryptogamic organisms found. But as both cases had been repeatedly examined microscopically outside the hospital with the greatest care, and always with negative results on other occasions, the speaker thought the organisms detected on that one occasion were due to the hospital atmosphere, and not to the disease. The disease went as suddenly as it came, leaving a normal surface on its disappearance. In one of the cases the disease had been coming and going for two years and a half, in the other for more than one year. Mr. Hutchinson had informed the speaker that the disease was better known in France.

Dr. MORISON had seen a few cases apparently similar to those just described. These he had attributed to dental irritation.

The PRESIDENT said the subject was a very interesting one. About a year ago he saw at Moorfields a case apparently exactly parallel to those described, but the rash had disappeared before he could examine it. He had seen two or three other cases quite similar, and had always failed to find any cryptogamic organism. In the Hospital of St. Louis, at Paris, he had seen a child suffering from ringworm whose tongue also presented circinate patches just like those described. He had been told that the disease was called in France "lichenoid disease of the tongue," and that it was not regarded as cryptogamic at all, but as resulting probably from indigestion.

Mr. R. W. PARKER had seen a child suffering from urti-

caria, whose tongue presented an appearance very similar to one of the drawings shown, and he had regarded the tongue-affection as analogous to the urticaria of the skin.

Mr. GUNN remarked that in the case seen at Moorfields Hospital there was a suspicion of congenital syphilis.

Dr. LEES asked if there was any history of syphilis in Mr. Barker's cases. He had seen patches similar to those described in syphilitic cases, the eruption changing very rapidly in appearance.

Dr. POWELL thought it very unlikely that a disease characterised by such rapid changes should be due to a vegetable parasite. It was probably, as Mr. Parker suggested, of the nature of erythema.

Dr. BARLOW also thought the most likely explanation was, that the disease simulated urticaria of the skin, especially in view of the irritability and evanescence of the eruption. Mr. Barker's description of the rash did not agree with the eruptions seen in congenital syphilis, which were characterised by an extreme heaping-up of epithelium around the margins of the patch.

The PRESIDENT would put aside syphilis altogether, from the very rapid evanescence of the rash.

Mr. BARKER, in reply, did not think the name "lichenoid" a very suitable one. One of the children had had real lichen on the lower extremities, for which arsenic had been taken with perfect success as regards the lichen, but with no result on the tongue-affection. He did not wish it to be understood that he considered the rash as of parasitic origin. Most probably it had an origin in the way suggested by Mr. Parker. He did not think it was of syphilitic origin, though it was true that the father of one of the children had had syphilis. The rash was not like any syphilitic eruption he had ever seen.

VESICAL CALCULUS REMOVED BY SUPRA-PUBIC OPERATION FROM A FEMALE CHILD.

Mr. SWAIN (of Devonport) exhibited this specimen, taken from a female child, ten years of age. She had had incontinence of urine for fifteen months before the operation, and it was known she had been in the habit of passing hair-pins into the vagina, one of which had slipped into the bladder through the urethra. Before she was seen, an abscess had formed in the groin, from which pus and urine were discharged. On examination a very large stone was found in the bladder—so large, that, after dilatation of the urethra, the lithotrite would not "bite" on it. The supra-pubic operation was accordingly performed, and the patient made a good recovery. The stone was found to be composed of phosphates collected round a hair-pin, the points of which protruded from the calculus, and had injured the walls of the bladder, and caused the abscess already mentioned. In answer to Mr. Rivington, the speaker stated that he had done the high operation on account of the great matting of the tissues which had been caused by the inflammatory and suppurative processes round the lower parts of the bladder. Of course he had not opened the peritoneum in the operation.

LARGE CALCULUS NOT DETECTED DURING LIFE.

Mr. SWAIN also exhibited an egg-shaped calculus, as large as an orange, formed of phosphates round a nucleus of uric acid removed, from the bladder of a man after death. The patient had been examined during life for stone by a competent surgeon, but the bladder was so enormously sacculated that the stone had escaped detection by the sound.

The following specimens were exhibited by card:—

By Mr. WALSHAM—Uterus Septus cum Vaginâ Duplici.

By Dr. PEACOCK and Dr. BARLOW—Malformation of Heart, showing stenosis of the pulmonary artery and the aorta communicating with both ventricles.

By Dr. PEACOCK and Dr. CASH READ—Malformation of Heart, showing absence of pulmonary artery. Dr. Peacock remarked that in such cases the blood usually reached the lungs by a patent ductus arteriosus.

By Dr. CROCKER—1. Congenital Malformation of the Heart, showing constriction of the pulmonary and tricuspid orifices, patent foramen ovale, incomplete septum ventriculorum, aorta placed over the right ventricle but receiving its blood from the left, ductus arteriosus partially patent though closed in the middle of its course. 2. Complete Occlusion of the Aortic Orifice by a Fibrinous and Calcareous Mass, with Perforation of one of the Aortic Valves.

By Dr. GOWERS, for Dr. OSLER (Montreal)—Brain Preserved by the Method of Giacomini (see *Journal of Anatomy and Physiology* for 1879).

By Dr. H. ORLEBAR—Aneurism and Rupture of the Aortic Valve.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, NOVEMBER 21.

JOHN SYER BRISTOWE, M.D., F.R.C.P., President, in the Chair.

THE minutes of the previous meeting having been read and confirmed, the Secretary proceeded to read the report of the Council, as follows:—"The Council are of opinion that the proceedings of the Society should be published annually in an octavo volume of larger type than in previous reports. They have deferred any report upon the clauses 15 and 16 of the Poor-law Act, 1879, until they receive a reply from the Local Government Board defining the term 'pauper.' They consider that the Artisans' and Labourers' Dwellings Amendment Act, 1879, has no special reference to the members as medical officers of health."

Drs. Waterworth and Gwynne were duly elected as metropolitan members, Messrs. Conolly, Day, and Moore as extra-metropolitan members. Dr. Saunders, of Hampstead, and Professor Kelly, of King's College, were proposed as members.

A conversation having arisen upon disinfectants and antiputrescents, it seemed to be the general opinion that carbolic acid is not so useful a disinfectant as chloride of zinc, sanitas, terebene, etc.

Dr. TRIPE read a paper entitled, "Poisoning by Eating Sausages and other Animal Matter." He said that the sausages were examined both chemically and microscopically, and nothing abnormal detected. On making inquiries, he found that sixty-four persons had been attacked out of sixty-six who had partaken of the sausages, the diarrhoea or sickness commencing from three and a half to thirty-six hours after eating the sausages. There were not any other cases of diarrhoea in the district, so that no other general cause for the occurrence of the symptoms was in existence. The symptoms were those of a narcotic irritant poison, somewhat resembling those of cholera, but with a greater amount of cerebral disturbance. The early symptoms were sickness, purging, giddiness; great feeling of weakness, with a sense of acridity in the throat, the stools smelling very badly, and looking like dirty soap-and-water, or the washings of putrid meat. Many had severe cramps in the legs and pains in the stomach, but others were not affected in this manner. In the majority of cases the vomiting and purging continued from thirty-six to forty-eight hours, the vomiting being described as bitter and greenish. He was much struck by the pallid look, general depression, and furred sodden tongue presented by most of the patients. One of the cases proving fatal, he gave an abstract of the account received from his medical attendants. There were no signs of inflammation or traces of the action of any irritant. The intestines presented alternately healthy and inflamed patches, the lower end of the small intestine being of a purplish tint. He examined all the organs for poison, but failed to detect any. He also examined the sausages sent to him, both microscopically and chemically, with a negative result, except that he obtained a putrid extractive, but the sausage had no unpleasant smell when received. In another instance, thirty-one persons residing in nine houses had partaken of poisoned dripping, and twenty-nine had been attacked more or less severely with diarrhoea. There were no cases amongst any of the other residents of the streets (four in number) in which the affected persons lived, and no nuisances were discovered in the houses or defective water-supply apparatus. The symptoms supervened, as in the sausage-poisoning cases, between from three to twenty-four hours after eating the dripping; and those suffered most severely who ate some of the jelly which was found underneath the dripping. In the majority of cases the sickness and diarrhoea came on in four or five hours, the prostration being very severe, and lasting in most of the patients after the diarrhoea had ceased. There was considerable abdominal pain, slight delirium in some of the cases, as well as cramps of the thighs, furred tongue, small quick pulse. The diarrhoeal discharges were watery and

very offensive. The dripping was bought from the cook of a wholesale City house employing a large number of young persons of both sexes, and no one amongst them had been similarly affected. Numerous nucleated and granular cells were discovered, as well as a few bacteria in active motion. On treating some of the dripping with benzole to dissolve the fat, similar cells were met with, but no bacteria. No fungoid growths could be found, nor any poison, although a careful analysis both of the fat and fluid was made. The watery solution obtained by mixing the dripping with hot water was evaporated down in a water-bath, and ceased to be offensive before it was quite dry, the heat having driven off the unpleasant smell. When we consider that no such set of symptoms supervene after eating game in a state of semi-putrefaction, we should not be justified in assigning it to this. The detection of nucleated cells and bacteria in the dripping, and the frequency with which these bodies are found in the discharges by persons suffering from epidemic diarrhoea, point to the existence of these minute organisms in all the food eaten in these cases, and to their rapid reproduction in the body of those partaking of it. Eight persons after eating bread-pudding were attacked with "violent purging, vomiting, and other symptoms of irritant poisoning." Two persons—one a child three years old, and the other a man—died from its effects. A thorough chemical and microscopical examination was made by Mr. Allen, F.C.S., and nothing discovered, although an analysis was made for mineral poisons, as well as for phosphorus, cantharides, and ergot. Under the microscope abundance of mycelium threads and other structures were observable, and on treating part of the pudding with a cold solution of soda, a brilliant red lake colour was produced, much resembling that resulting from a similar treatment of ergot. The case is reported in the third volume of the *Analyst*.

Mr. VEREKER-BINDON said he had examined the diarrhoeal discharges of children, and found them very often loaded with bacteria and cells of a peculiar character, some of them evidencing cell-proliferation.

Mr. CORNER remarked that it was important to notice the decided absence of putrefactive odour from the dripping, which entirely exonerated the vendor from blame.

Dr. BRISTOWE gave the particulars of a somewhat similar case occurring in his own family from eating shrimps. All who had partaken were attacked with symptoms of cholera, griping, sickness, and diarrhoea. One servant not caring for shrimp sauce, did not take it, and she alone escaped. The shrimps were purchased at one of the leading fishmongers at the West-end of London. In the diarrhoeal discharges many different organisms were found, some of them evidently ova of entozoa.

Dr. TRIPE made some remarks upon a similar outbreak from members of his own family eating cockles.

Dr. TIDY said he had investigated three distinct and similar endemics, two of which were traced to sausages as the cause, and one to eating mutton. The discharges were carefully treated with acetate of lead to form a precipitate, which, after being taken up by chloroform, yielded a bitter residue quite distinct from the bitter of strychnia or of morphia. There was no action with nascent oxygen. A portion of the residue being injected under the skin of a frog, it became comatose in a few minutes. It is very doubtful what this bitter residue could have been.

Mr. S. R. LOVETT then read some notes on "A Recent Outbreak of Typhus Fever in Bloomsbury," of which we append an abstract. After giving details of certain cases of typhus occurring in the district of St. Giles's, he proceeded to draw attention to cases which appear to have been imported into the parish by hop-pickers who had returned from Kent. It is impossible for inspectors to disinfect houses and rooms which have been saturated with infection from typhus fever, unless they are duly informed of the occurrence of the disease in those houses and rooms. These typhus fever cases received into general hospitals are, of course, as well treated as they can be, but that is only a part of what ought to be done. The great object of the medical officer of health is to prevent the spread of infection from the dwelling whence the patient was removed; but if patients are received into these hospitals and no information given to the medical officer of health, the individual patient may be well cared for, but a poisoned dwelling is allowed to remain a poisoned dwelling for the extension of the disease. Is not the admission into general hospitals of patients suffering

from infectious disease, without due information being given to the local authorities, retrogressive to our sanitary efforts for arresting the spread of disease? Have we not again and again at our meetings resolved that, in the opinion of this Society, it should be a legal obligation on the person in charge of houses, etc., to report to the sanitary authority, without delay, the existence of a case of infectious disease? Also is it advisable to admit these infectious patients into general hospitals, notwithstanding the advantages for clinical study, considering that special hospitals, under the able management of the Metropolitan Asylums District Board, are provided for their reception and treatment? There can be no doubt that the fever originated in St. Giles's district, either in Lincoln or Orange courts, both of which are in the area being dealt with by the Metropolitan Board of Works under the Artisans' Dwellings Act, 1875. The property structurally was such that nothing but total demolition could successfully deal with it. Even the Works Committee of the Metropolitan Board, after their inspection in 1876, reported "that this area comprised some of the most wretched houses in the metropolis, in which the inhabitants are densely populated." In evidence of its insanitary condition, he was able to prove, at the inquiry before the Commissioners appointed by the Home Secretary, an actual death-rate of nearly forty in the thousand per annum in Lincoln-court. The houses in this court have been recently pulled down by the Metropolitan Board of Works; those in Orange-court have been closed by order of the magistrate under the Nuisances Removals Acts on the application of the district board, and proceedings are now being taken against the owners of adjacent property with the view of closing them also. He had endeavoured to arrest the spread of the disease, but his powers under the Sanitary Acts are insufficient to do much. Of the ultimate benefits that will be derived from the Act there can be no question, but the length of time which seems necessary to improve any area under it demands some amendment.

Dr. BRISTOWE, in commenting upon Mr. Lovett's paper, remarked that one of the nurses at St. Thomas's Hospital took typhus fever from a case admitted from Kent. He would take care that in future the district medical officers of health be informed as soon as possible of the admission of fever cases into the wards of St. Thomas's Hospital. He thought it undesirable to congregate typhus cases together in the same ward, as it would be far more fatal under these circumstances. The nurse took the disease from two children put together in a small ward.

A letter was read from the Medical Officer of Health at Lincoln, stating that the schedules published by the Local Government Board, defining the operation of the Act which governs the business of a cowkeeper, render the salutary provisions of the Act almost useless. A private person is allowed to dispose of milk to his *employés*, etc., without being subject to the Act; and he knew of typhoid fever being spread in consequence.

Dr. TIDY considered that the Metropolitan Board of Works have misunderstood the powers they possess. They are required to see that the sheds are kept clean, but not to make general orders of their own. They have ordered cowkeepers to line their sheds with "an impervious material" of tar and lime, forgetting that tar is very prejudicial to the health of cows, and may be tasted in milk. He always recommends simple lime-whiting, which can be renewed frequently without much trouble or expense.

Mr. MURPHY remarked that the Middlesex magistrates have resolved to accept the decision of the sanitary authorities in preference to the regulations of the Metropolitan Board of Works.

CHLORAL IN OBSTETRICAL PRACTICE.—Dr. C. O. Wright, of Cincinnati, mentions, in a paper in the *American Journal of Obstetrics*, the following applications of chloral:—1. In shortening the first stage of labour where chloroform would not be desirable; 2. In puerperal eclampsia; 3. In albuminuria during or subsequent to gestation; 4. In all tedious labours; 5. In the vomiting of pregnancy; 6. Locally in eczema of the nipple; 7. In pruritus vulvæ. The favourite mode of administration is by enema. Chloral is given in fifteen-grain doses often repeated, or in larger doses. When used locally it is best combined with vaseline, ten or fifteen grains to the ounce, applied frequently.—*Louisville Med. News.*

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 20th inst., viz.:—

Allen, T. W. J., Louth, Lincolnshire, student of University College.
Bultheel, Marcus H., Stonehouse, Plymouth, of St. George's Hospital.
Cock, John, South Molton, Devonshire, of Guy's Hospital.
Jones, Arthur L., L.S.A. Llandilo, Carmarthen, of the London Hospital.
King, David A., Finsbury-circus, of St. Bartholomew's Hospital.
Lukis, Charles P., Southampton, of St. Bartholomew's Hospital.
Maclean, Caird R., M.D. Kingston, Ontario, of the New York School.
Marsh, Charles J., Yeovil, Somerset, of St. George's Hospital.
Morse, Thomas H., Lound, near Lowestoft, of Guy's Hospital.
Pepler, W. H. O. C., West Kensington-park, of St. Bartholomew's Hospital.
Pilkington, Francis S., Leyland, Lancashire, of Guy's Hospital.
Rake, Braven N., Fordingbridge, Hants, of Guy's Hospital.
Rice, Edward, Stratford-on-Avon, of St. Bartholomew's Hospital.
Rolston, John R., Stoke, Devonport, of Guy's Hospital.
Thomas, Walter D., Llanelly, Carmarthen, of St. Bartholomew's Hospital.
Townsend, Knowlson, L.R.C.P. Lond., Wellington-road, N.W., of St. Bartholomew's Hospital.
Webster, Ridley M., Colebrooke-row, N., of the Middlesex Hospital.
Woodbridge, Leonard C., Bernard-street, of Guy's Hospital.

Out of ninety-nine candidates examined, six were approved in Surgery, and when qualified in Medicine will be admitted Members of the College; and twenty-seven candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months. With this meeting of the Court the examinations for the membership of the College for the present year were brought to a close.

At the half-yearly Primary Examination for the Fellowship of the College, on the 25th inst., the following gentlemen were reported to have acquitted themselves to the satisfaction of the Board of Examiners, and when eligible will be admitted to the Pass Examination, viz.:—

Barlow, John, M.D. Edin., diploma of Membership dated November 17, 1874, of the Glasgow School.
Brown, James, L.S.A., May 8, 1867, of the Birmingham School.
Dale, Frederic, B.A. Cantab. and L.R.C.P. Lond., May 22, 1879, of St. George's Hospital.
Duncan, William Archdeacon, L.S.A., April 22, 1879, of St. Thomas's Hospital.
Finch, Henry, M.D. St. And. and L.S.A., April 11, 1861, of University College Hospital.
Haig, Alexander, B.A. Oxon., July 28, 1879, of St. Bartholomew's Hospital.
Taylor, James, L.R.C.P. Lond., January 24, 1865, of the Glasgow School.
Tidswell, Herbert Henry, April 25, 1877, of St. George's Hospital.

The following gentlemen passed on the 26th inst., viz.:—

Collins, William Job, student of St. Bartholomew's Hospital.
Cutfield, Arthur, of the Cambridge School.
Hardie, James, M.D. Edin., of the Manchester School.
Lewis, William Henry Phillips, of St. George's Hospital.
Lilley, James Harris, B.A. Cantab., of University College Hospital.
Maitland, Alfred Derwent, of University College Hospital.
Norvill, Frederick Harvey, of King's College Hospital.
Sharples, William Henry, of the Manchester School.
Turlton, James, of the Charing-cross Hospital.
Willis, Arthur Keith, B.A. Oxon., of St. George's Hospital.

Six candidates having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for six months.

Fellowship Examination.—The following were the questions on Anatomy and Physiology submitted to the candidates at the half-yearly primary examination for the Fellowship of the Royal College of Surgeons on the 21st inst., when they were required to answer all four questions, viz.:—1. What do you understand by the term "arterial tension"? How is its amount estimated? By what circumstances is it modified? 2. Describe the minute anatomy of the grey matter of the cerebral hemispheres in man. What functions have been assigned to it? and upon what evidence? 3. How would you expose in an entire subject the arch of the aorta as far as the fourth dorsal vertebra? What are the relations of each part of the arch? Give also the topographical indications on the chest-surface. 4. The brain having been removed, how would you trace out the course, connexions, and distribution of the second division of the fifth nerve?

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 20:—

Hackman, Leonard King Havelock, Landport, Hants.
Hewitt, John, Leaf-square, Manchester.
Munyard, Thomas Guillaume, Coombe Bury, Kingston-hill.
Neale, William Henry, 60, Boundary-road, N.W.
Pound, Francis Joseph, Odiham, Hants.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Bissill, Arthur Kent, St. Bartholomew's Hospital.
Harvey, Elden, St. Thomas's Hospital.
Moore, Alexander Mathew, Guy's Hospital.
Pounds, Thomas Henderson, Charing-cross Hospital.
Quicke, William Henry, Westminster.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

LUNN, J. R., L.R.C.P., M.R.C.S., L.S.A.—Assistant House-Physician to St. Thomas's Hospital.
NEWSHOLME, A., M.R.C.S., L.S.A.—Assistant House-Surgeon to the St. Thomas's Hospital.
SHEPPARD, C. E., M.B. Lond., L.R.C.P., M.R.C.S., L.S.A.—Resident Accoucheur to St. Thomas's Hospital.

BIRTHS.

McCLURE.—On November 19, at Verandah House, Worle, Somersetshire, the wife of Thomas McClure, M.D., F.R.C.S.I., of a daughter.
MORE.—On November 21, at the Royal Naval Hospital, Plymouth, the wife of Robert Hall More, M.D., Staff Surgeon R.N., of a son.
MURPHY.—On November 18, at Atlantic View, Tramore, Ireland, the wife of Surgeon-Major Murphy, of a son.
WALTERS.—On November 20, at Reigate, the wife of John Walters, M.B., of a son.

MARRIAGES.

ALBAN—JONES.—On November 5, at Llansaintffraid Church, Cardiganshire, Evan Alban, M.R.C.S., L.S.A., of Lindfield, Sussex, to Mary Anne, only daughter of J. Jones, Esq., 16, Alban-square, Aberavon.
GILLIBRAND—RATCLIFF.—On November 22, at Southport, Dr. William Gillibrand, of Chorley-road, Bolton, to Catherine Ann, only daughter of the late William Ratcliff, Esq., of Wigan.
JULER—ANDERSON.—On November 20, at Paddington, Henry Edward Juler, F.R.C.S., Demonstrator of Anatomy, St. Mary's Hospital, London, to Amy Margaret Churchill, second daughter of Wm. J. Anderson, Esq., of Sans Souci, Cape Colony, and Westbourne-terrace, Hyde-park, W.
WILSON—CHAVASSE.—On November 18, at Boldmere, the Rev. Percival Ewen Wilson, B.A., to Miriam Theresa, third daughter of Thomas Chavasse, F.R.C.S., of Wyld Green House, Wyld Green.

DEATHS.

FISCHER, PRUDENCE FLORENTINE, wife of Dr. C. F. Fischer, of Sydney, New South Wales, in London, on November 26.
FLORENCE, Dr. AUGUSTUS, at Christchurch, New Zealand, of apoplexy, on September 22, aged 67.
GOUDER, Dr. FILIBERTO, at Malta, on September 21, aged 63.
MARTIN, Dr. EDMUND GLANVILLE, at Weymouth, on November 22, aged 75.
MAUNSELL, ROBERT ST. JOHN LANE, eldest son of T. Maunsell, Surgeon-Major A.M.D., at 329, Brunswick-street, Halifax, Nova Scotia, on November 9.
MOUNTJOY, Dr. J. W., Indian Medical Service, on his passage to England, on October 28.
SMITH, Dr. ARTHUR WILLIAM, of Auburn, Adelaide, youngest son of Solomon Smith, M.R.C.S., of Halifax, South Australia, on November 16, aged 31.
WALTER, GEORGE WHITAKER, Surgeon-Major late Madras Medical Service, at 156, Holland-road, Kensington, on November 22.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BURY DISPENSARY.—House-Surgeon. Applicants must be registered under the Medical Act, 1858, in both medicine and surgery, unmarried, and willing to engage for a period of two years. Applications, with testimonials, to be made to J. W. Kenyon, Secretary, Market-street, Bury, on or before November 29.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Assistant-Surgeon. Candidates are to be Fellows or Members of one of the Royal Colleges of Surgeons, or a Master in Surgery of one of the Universities of Great Britain or Ireland, are not to engage in the practice of midwifery or pharmacy, and must have attended the practice of some ophthalmic institution for at least six months. Applications, with testimonials, to be sent to the Secretary on or before December 10.

CITY OF LONDON LYING-IN-HOSPITAL, CITY-ROAD.—Consulting Surgeon. Candidates must be Fellows of the Royal College of Surgeons. Applications, with testimonials, to the Secretary, R. A. Othwaite, Esq., on or before December 2.

IPSWICH BOROUGH LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be doubly qualified, registered, and unmarried. Applications, with testimonials, to be sent to Dr. Chevallier, Medical Superintendent.

JERSEY GENERAL DISPENSARY.—A Resident Visiting and Dispensing Medical Officer, possessing the double qualification, and unmarried, is wanted for December 1. Applications to be made to the Honorary Secretary, Oak-walk, Jersey.

LONDON LOCK HOSPITAL (MALE AND OUT-PATIENT DEPARTMENT), 91, DEAN-STREET, SOHO.—House-Surgeon. Applications, with copies of testimonials, to G. T. F. Abraham, Secretary, on or before December 10.

NORTH-EASTERN HOSPITAL FOR CHILDREN, HACKNEY-ROAD, E.—House-Surgeon. Candidates must be registered under the Medical Act. Applications, with copies of testimonials, to be sent to the Secretary, Alfred Nixon, Esq., on or before December 1.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Melton Mowbray Union.—Mr. G. C. Leacock has resigned the Wymondham District: area 15,673 acres; population 2511; salary £32 per annum.

APPOINTMENTS.

Ashton-under-Lyne Union.—John N. Cooper, L.K. & Q.C.P. Ire., M.R.C.S. Eng., L.S.A., to the Seventh District.
Pewsey Union.—Charles V. Helsdon, M.R.C.S. Eng., to the Fifth District.
Pontypool Union.—Richard Edmunds, L.R.C.P. Edin., M.R.C.S. Eng., to the Pontypool District.
St. Mary, Lambeth, Parish.—G. H. Wilkins, M.R.C.S. Eng., L.S.A., to the Tenth District.
Shipston-on-Stour Union.—David John Sherrard, M.B. and M.Ch. Dub., to the Halford District.
Suffolk.—James Napier, F.C.S., as Analyst for the Eastern Division of the County.
Whitchurch (Salop) Union.—Ambrose B. George, L.R.C.P. Edin., M.R.C.S. Eng., to the Whitchurch District.
Wirral Union.—Richard A. Jackson, L.R.C.P. Edin., L.R.C.S. Edin., L.F.P. & S. Glasg., L.S.A., to the Eastham District.

SPACE ACCOMMODATION IN HOSPITALS AND BARRACKS.

—The Army Medical Department recently issued amended regulations relative to accommodation in barracks and hospitals. In future the minimum space to be allowed for each bed in any permanent hospital is to be 1200 cubic feet at home and in temperate climates, and 1500 cubic feet at stations in tropical climates. When hospitals are not fully occupied, the sick are to be distributed so as to give, as nearly as may be, the amount specified. The number of beds which each ward is capable of containing, in accordance with these measurements, is to be recorded on a return furnished to the War Office, and the number of beds in the wards is not to be increased without the sanction of the Secretary of State for War. In detached wooden huts in temperate climates the minimum of space is to be 400 cubic feet for each bed, where possible, and the number of beds in each hut is to be reported to the War Office. The medical officer in charge is to ascertain whether the number of men in barrack-rooms, hospital-wards, and guard-rooms is in accordance with the number recorded. He is also in future to state in his annual report to the Director-General of the Army Medical Department what the monthly average cubic space for each man has been.

DIPHTHERIA IN BESSARABIA.—At the meeting of the medical practitioners of Bessarabia, which took place at Kischinev, diphtheria, which for years has ravaged that government, was the most prominent subject of discussion. From the interesting communications then made, it appears that this disease first appeared in Bessarabia in 1872, having been introduced from Roumania. It gradually spread from the town in which it first appeared, to those brought into active intercourse with it. In one district apart from the commercial district, to which it penetrated, almost all the children died; but the epidemic remained confined to the locality. From another place of great trade, to which it also was conveyed at the same time as that just mentioned, it spread over the whole circle, 9000 deaths occurring in the course of two years and a half. Thence it spread to the Kamenz-Podolski government, carrying off 10,000 victims, and is now raging in the Cherson government. It shows itself as an eminently contagious disease, spreading from house to house and from town to town, etc. Among the chief recommendations of the assembled practitioners were disinfection with sulphurous acid, isolation of the sick in separate buildings, and, in case of necessity, placing villages in quarantine.—*St. Petersb. Med. Woch.*, November 8.

THE LONDON STREETS.—The thanks of the public are due to Mr. Ellison, the magistrate at the Lambeth Police-court, for his well-timed remarks on the state of our streets and thoroughfares. On Saturday last he spoke of the condition which the streets presented owing to the recent heavy fall of snow. He said that by the Act of Parliament occupiers of houses and premises were liable to a penalty of forty shillings for not keeping the spaces in front of their buildings clean. The Act further pointed out that in the event of such houses or premises being unoccupied, then the owner was liable. The police authorities had, therefore, full

power to take proceedings against offenders. This Act, he said, which had been passed with the best of reasons, had never been fully carried out, and this could not be better illustrated than by the state of the streets that (Saturday) morning. Non-compliance with the law not only endangered health, but also life and limb. He considered that, at the commencement of the winter season, householders, shopkeepers, and others, should have due notice and warning, and if they then failed to comply with the Act, they should be summoned, and in that case the magistrates would most certainly do their duty to the public and convict offenders. We fully sympathise with Mr. Ellison in this matter, but we may observe that in some of the London parishes at least, the notice and warning he recommends is habitually sent out. It is the further action—the enforcing the notice—that is needed. And all this concerns only the foot-pavements and paths; but who will make the parochial authorities see to the cleansing of the streets when snow has fallen?

CORVISART AND NAPOLEON I.—The *Lyon Médical* extracts the following anecdote from the memoirs of Madame Remusat recently published in the *Revue des Deux Mondes*:—"The Emperor having renounced the divorce for the time, but always pressed by the desire of having a heir, asked his wife whether she would consent to accept a son who only belonged to himself, and to feign a pregnancy with sufficient skill to deceive everybody. She seemed anything but adverse to comply with his wish in this respect. Bonaparte then, sending for Corvisart, his first physician, in whom he placed a merited and long-tried trust, confided his project to him. 'If I am able,' he said, 'to assure myself of the birth of a boy, who will be my own son, my wish is that, a witness of the feigned delivery of the Empress, you should do all that is necessary for giving to this device every appearance of a reality.' Corvisart considering that the delicacy of his probity was compromised by this proposition, promised the most inviolable secrecy, but refused to lend himself to what was required of him. It was not until long afterwards, and subsequent to the second marriage of Bonaparte, that he confided this anecdote to me, attesting to me at the same time the legitimate birth of the King of Rome, concerning which it had been endeavoured to excite doubts that were perfectly unjust."

CLINICAL EXAMINATIONS.—At the last pass examination for the diploma of membership of the Royal College of Surgeons, the following were some of the interesting cases submitted to the candidates, selected from St. Bartholomew's, St. George's, University College, and Guy's hospitals, viz.:—Paralysis of musculo-spiral nerve from fractured humerus; genu valgum and amputated forearm in the same patient (a boy); popliteal aneurism cured; wound of the eye with prolapsus of the iris; inflammation of the external tunics of the eye; diseased and perforated palate from syphilis (boy); enlarged testicle with hydrocele; inflamed and enlarged varicose veins; divided ulnar nerve; retained testicle; orchitis; enlarged cervical glands; cheloid tumours; enlarged inguinal glands; syphilitic sore throat and eruption; enlarged testicle; interesting case of psoas abscess; syphilitic ulceration of tongue; knock-knee; retained testicle with hernia, etc.

TUBERCLE OF THE URINARY ORGANS.—Dr. Tapret terminates an article in the *Archives Générales* for October with the following conclusions:—1. Tubercle of the urinary organs is of more frequent occurrence than is supposed, if we are to judge by the small number of cases that have been published. It appears usually between the ages of sixteen and forty, and is rare in the female. 2. Tubercle may occur primarily in the kidney, bladder, prostate, and urethra, remaining stationed there, or becoming propagated in the course of a longer or shorter time, and after periods of arrest, to the genital organs, or invade the lung. Urinary phthisis is rarely associated at once with other manifestations of the diathesis. 3. When the disease commences by the kidney, its onset is insidious; on the contrary, its invasion of the neck and trigone of the bladder is usually indicated by frequent and painful irritation, hæmaturia, pus in the urine, etc. 4. The symptoms of vesical tubercle are grouped in a variable but regular order, and although some may be wanting, they constitute a characteristic morbid assemblage. 5. Its course, usually chronic, may be precipitated by the rapid or slow invasion of the testis or of the

lung, rarely of the peritoneum or meninges. In spite of its periods of quietude, of greater or less length, it leads to consumption, and uræmia may terminate the scene. 6. The diagnosis is based on a thorough appreciation of the value of each symptom, direct exploration being employed only as a means of confirmation, and as rarely as possible. 7. Tubercle of the kidney, bladder, prostate, and urethra presents the same stages of evolution as that of the lungs, peritoneum, meninges, and testis. 8. Its treatment is that of tuberculosis in general, modifying injections being employed in some cases. The most painful symptoms may be assuaged by morphia. 9. The appearance of urinary tuberculosis may put us on the way of other varieties, and furnish valuable indications as to the nature of certain morbid phenomena of the pulmonary and genital organs.

MEDICAL FEES.—The Manchester Medico-Ethical Association has recently published a third and revised Tariff of Medical Fees, as a guide to the junior practitioner when in doubt as to the proper remuneration to which he is entitled. We have, in due course, noticed the previous issues of these Tariffs, and upon the present occasion it is only necessary for us to remark that the suggestions offered by the Association are thoroughly practical and decidedly useful; but in taking the rental of the patient's residence as the basis of classification, it would, we think, be impolitic to adhere to any hard and fast line. For instance, a man without family, and with easy means, may live in a smaller and cheaper house than a man with a large family and less income: in this case the tariff, if strictly followed out, would undoubtedly exercise a pressure in the wrong direction, more especially as the latter patient would, presumably, require a great deal more attendance than the former. The Tariff very wisely omits all mention of payment for medicines, as it considers that medical men should in all cases base their title to remuneration upon the value of their time and skill only. The Tariff can be obtained from the publisher, Mr. J. E. Cornish, Piccadilly, Manchester, and will unquestionably prove a useful guide to many, including the junior, members of the profession.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Dr. Williams.—Essays for the Collegial Triennial and Jacksonian prizes of the Royal College of Surgeons must be sent in to that institution on or before the 31st proximo. Write to the Secretary for particulars.

A Ratepayer.—The Metropolitan Board of Works is empowered to deal with all matters connected with the removal and repair of dangerous structures outside the City. It dealt with upwards of 2000 of these cases last year.

London Street Accidents.—The following return by the Society for Preventing Street Accidents comprises only cases of new accidents treated at the principal London hospitals during the week ending the 22nd inst.:—Number of persons killed, 5; run over, 44.

Infringing Sanitary By-laws.—The Leyton Local Board have decided to institute proceedings against the owners or builders of houses who have, it would appear, infringed the by-laws of the Board in the erection of those dwellings; and at the same time the Board have referred to the Sanitary Committee the question of appointing a salaried inspector of buildings.

Medical Inspection of Schools in France.—In a circular to the prefects, M. Jules Ferry recommends the appointment of medical inspectors to visit periodically the public schools and examine into their salubrity and the health of pupils—an inspection which already exists in Paris and some of the large towns. The educational inspectors, he states, are not well acquainted in general with such matters.

An Official Rebuke.—The Local Board of Hindley wish to borrow £40,000, but the last loan not having been expended wholly for the purposes to which it was intended to be applied, the present application was not favourably entertained by the Local Government Board inspector, Major Tulloch, who, when attending their last meeting, observed that "it was a farce for the Local Government Board to send down an inspector when the Local Board ignored the central authority and pleased themselves. He warned individual members of the Local Board that they might find themselves made liable to refund money, the payment of which they had sanctioned. It seemed to him that the Board went on spending money without regard to estimates or anything else, and that when they had to apply for a loan they made up a story for the Local Government Board to enable them to get it."

THE PROBLEM FOR TOBACCO-SMOKERS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Your correspondent of the 11th ult., signing himself "A Dreamer with Open Eyes," desired a solution of the tobacco-smoker's problem, and as it remains yet unanswered, I would say in answer, if you will allow me, that the fact of a smoker in the dark not knowing that he is smoking, and requiring ocular proof to assure himself of the fact, is only in conformity with the established laws of physiology. As sentient beings, we require the evidence of our senses to arrive at correct conclusions. Being deprived of one sense, our judgment is in proportion obscured, the correlation existing between the senses necessary for a happy adjustment of ideas is disturbed, and we are, in every sense of the word, in the dark both as to present enjoyment and correctness of opinion. It is asked, "Is there a difference in the result obtained with smoking with the eyes open or shut?" Practical experience of each individual smoker will answer this for himself. The result must be the same in any given case, but varying according to circumstances, as when the eyes are open—such as want of proficiency in the accomplishment in the young tyro, who would be sooner prostrated than the practised veteran; the condition of the stomach, too, at the time—the stomach being the centre of sympathy. As to blind smokers, I see no reason why they should not become narcotised in the dark, the same as anybody else, by abuse of the weed. Perhaps they have the advantage of others in enjoyment when both are in the dark, but must labour under a disadvantage when compared to the smoker enjoying the blessings of eyesight in a cloud of tobacco-smoke. Tobacco-chewing, whether there be virtue or vice in it, the practice is essentially and unmistakably sensual. Perhaps your correspondent, after he has lighted his pipe, will give us some additional light upon the subject, the result of his cogitations over "The social tuhe, thou foe to care." I am, &c.,

Gringley-on-the-Hill, November 20.

R. H.

Meat Supplies.—New South Wales and Victoria propose immediately to ship to this country fresh meat in competition with Canada and the United States. Six hundred carcasses of beef and two hundred of mutton should arrive here next month. The system adopted is to freeze the meat before the ship sails that conveys the cargo to England, and keep it in that condition until arrival here. Should the experiment be a success it is proposed to continue the trade on a large scale.

Fogs.—Dr. Frankland makes, in the appendix to the Report of the Science and Art Department, recently printed, some interesting observations on fogs. After stating that he has communicated to the Royal Society the results of an investigation into the cause of the persistency and irritating character of the fogs which frequently afflict large towns, he says that these fogs occur in comparatively dry air; and he finds that their persistency in a dry medium is due to a coating of coal oil derived from coal smoke upon the surface of the minute particles of water which compose fog, the oleaginous coating effectually preventing the evaporation of water. The oleaginous liquids are discharged into the atmosphere in large quantities during the combustion of bituminous coal in domestic fire-grates; they are very irritating to the respiratory organs, and a large proportion of them is scarcely, if at all, volatile at ordinary temperatures. By the substitution of smokeless coal, coke, or gas for bituminous coal, therefore, these town fogs would be done away with. Dr. Frankland adds: "It is perhaps not too much to hope that coal gas of little or no illuminating power may be manufactured and sold in London at such a price as to compete successfully with the bituminous coal which, at present, is the cause of enormous damage to the property and discomfort to the inhabitants of the metropolis. Several methods are known by which such gas could be rendered illuminating at a cheap rate, and it would therefore not be necessary to supply two kinds of gas."

Urban and Rural Sanitary Works.—The Naas Improvement Commissioners have approved a scheme of drainage at a cost of between £2000 and £3000.—The Hove Commissioners have adopted plans for a proposed new cemetery at an estimated cost of £14,750.—Sewerage works are about to be carried out in the district of Sowerby Bridge.—A new cottage hospital at Maidenhead was formally opened on the 6th inst. Eight beds are provided.—The Town Council of Brighton have approved a site, on the downs, on which to erect a sanatorium for the reception of infectious case. The cost of the buildings, etc., is estimated at about £800.—The Grays Thurrock Burial Board has resolved to purchase land at Socketts Heath for a new cemetery.—Sewerage works are being carried out in the Lea-bridge and Leyton-roads, and other parts of Leyton.—The Metropolitan Board of Works have resolved to contribute one-half of the cost (estimated at £6840) of an improvement in Hare-street, Woolwich, about to be carried out by the Woolwich Local Authority.—The Board of Works has agreed to advance £24,500 to the Rotherhithe Bath Commissioners for building baths and washhouses, and also sanctioned the borrowing of £1300 for additions to their hospital by the Lewisham District Board of Works.—A large block of industrial dwellings has been commenced in Kennington-road by the South London Industrial Dwellings Company, on the site upon which, until recently, stood a mansion known as Surrey Lodge, with extensive grounds. The dwellings will contain about 250 tenements, providing for a population estimated at upwards of a thousand persons.—The work of boring for water for the East Dereham Local Board has been commenced. The site selected is in the Cemetery-road, a quarter of a mile from the centre of the town.—The Dublin Town Council have decided to deal, under the Artisans' Dwellings Improvement Act of 1875, with the whole of Plunkett-street and Blackhall-row, and parts of many courts and lanes adjoining, which the sanitary officer regards as an "unhealthy area."—A new cemetery has just been opened at Syston, Leicestershire, at a cost of £2035.

An Old Member.—Great changes have taken place since you were admitted a member. Under the present regulations of the College, candidates for its diploma who have been rejected on two consecutive trials have to pay an additional fee of five guineas on the third, both at the primary and the pass. Unfortunately for the finances of the College, the regulation does not apply to the fellowship of that institution, for which qualification candidates may present themselves as often as they please, except in such rare cases as that of the person mentioned by you, who has been rejected, we believe, seven times, and, by a special resolution, will not be admitted to re-examination.

A Successful Candidate.—At the half-yearly primary examination for the fellowship of the College, just concluded, the following was the distribution of the Board—Mr. Luther Holden, President:—At table A, Messrs. John Wood and W. Morrant Baker; B, Messrs. Henry Power and Walter Rivington; C, Messrs. Christopher Heath and P. Pickering Pick; D, Messrs. J. W. Hulke and Arthur Durham. Each candidate had a quarter of an hour at three tables. There were thirty-two candidates. The pass examination was commenced on Thursday last. The list cannot be published until it has been submitted to the Council.

Cottage Accommodation at Halstead.—Dr. Kellett, the Medical Officer of Health for Halstead, in his last report to the Local Board of Health, gives a most unsatisfactory account of the present cottage accommodation of the town. He says—"In all the back courts the houses, besides being badly built and ill-ventilated, are so small that they are unfit for any ordinary family to inhabit. An order to abate nuisances is practically an order to the inmates of these houses to leave the town and give up their employment."

An Unpopular Proposal.—The proposal to erect a hospital for infectious cases in the grounds of the Birkenhead Workhouse is meeting with great opposition. A deputation of upwards of fifty ratepayers from Tranmere have waited upon the guardians to protest against the scheme. It was suggested that the deputation should obtain an interview with the Health Committee of the Town Council, and persuade them to erect a hospital. Ultimately the guardians decided to solicit the opinion of the Local Government Board on the case, and it was stated that the Building Committee has suspended the operations as a result of the opposition to the proposal.

Timely Professional Help.—Dr. Little, of Manchester, in reporting on the recent epidemic of ophthalmia in the Salford Workhouse, stated that he had examined the children, and found that 106 girls and eight boys were suffering from the disease. After suggesting the best means to deal with the epidemic, he said, considering the severity which had evidently attended many of the cases, he thought the present state of the eyes might be regarded as fairly satisfactory, and it redounded much to the credit of the resident medical officer, Dr. Knowles. A guardian has given notice of a motion for the next meeting of the Board, that as there was too much work to be done in the workhouse for one resident medical officer, he should move that an assistant resident medical officer be temporarily appointed.

An Inadequate Sewer.—At Philadelphia a question of some importance in respect to the liability of a municipality for its sewers has recently been decided by a referee. The inhabitants of one part of the city had, some time ago, petitioned the city authorities to convert the Cobocksiak Creek, which drained that quarter, into a sewer. This has been done, but there came on one day a rain so heavy that the sewer, though it had served for all ordinary contingencies, proved quite inadequate to carry off the water, which backed up and overflowed the property of the abutters, doing considerable damage. Several actions were brought against the city, on the ground that it was liable for not having provided a sufficient sewer. These actions, by mutual consent, were referred to a referee, and, according to the *North American* (Philadelphia), the referee holds that since no defect appeared in the construction of the sewer, the damage being due only to its small capacity, it is to be attributed to an error of judgment in providing for ordinary, but not for extraordinary, emergencies. "For an error of judgment," the referee decides, "as a matter of law, a municipality cannot be held liable." The actions were consequently dismissed.

COMMUNICATIONS have been received from—

Dr. JOHN SHEA, Reading; THE REGISTRAR OF APOTHECARIES' HALL, London; THE GENERAL SECRETARY OF THE BRITISH MEDICAL ASSOCIATION; Mr. N. KNIGHT, London; THE SECRETARY TO THE LOCAL GOVERNMENT BOARD; THE EDITOR OF "IRON"; ALEXANDER ENDELMANN, Leipzig; Dr. MATTHEWS DUNCAN, London; Dr. GRANVILLE BANTOCK, London; Mr. H. RAYNE, Bantry; Dr. A. P. STEWART, London; Dr. ED. I. SPARKS, Mentone; THE REGISTRAR-GENERAL, Edinburgh; THE SECRETARY OF THE ROYAL INSTITUTION; THE EDITOR OF THE "PHARMACEUTICAL JOURNAL"; Dr. EDWIN H. SNOW, Providence, R.I.; Mr. S. J. HUTCHINSON, London; THE SECRETARY OF THE SENATUS OF THE UNIVERSITY OF EDINBURGH; Surgeon-Major W. T. BLACK, Edinburgh; THE HON. SECRETARY OF THE EPIDEMIOLOGICAL SOCIETY OF LONDON; THE SECRETARY TO THE SOCIETY FOR THE ENCOURAGEMENT OF ARTS, etc.; Mr. EDMUND JOHNSON, London; Dr. ELLIOT, Carlisle; Mr. HENRY MORRIS, London; Mr. J. T. W. BACOT, Seaton, Devon; Dr. N. H. SEMPLE, London; THE SILICATE PAINT COMPANY, Charlton, Kent; THE SECRETARY OF THE OBSTETRICAL SOCIETY, London; THE SECRETARY OF THE FACULTY OF PHYSICIANS AND SURGEONS, Glasgow; Mr. J. CHATTO, London; THE SECRETARY OF THE PATHOLOGICAL SOCIETY; Mr. T. M. STONE, London.

BOOKS AND PAMPHLETS RECEIVED—

Prospectus of "The Statesman"—Life of Erasmus Darwin—Report on the Water-Supply—Rise and Development of Organic Chemistry, by C. Schorlemmer, F.R.S.—Osteological Catalogue, by Wm. Henry Flower, Esq.—Weekly Return of Births and Deaths—Annual Report of Births, Marriages, and Deaths in the City of Providence for 1878—A Text-book of Physiology, by J. Fulton, M.D.—Medical Education and Medical Organisation, by Walter Rivington, B.A.—Transactions of the Odontological Society of Great Britain—Royal Institution of Great Britain: Weekly Meeting on Sensation and the Unity of Structure of Sensiferous Organs—Theory and Practice of Medicine, vol. i. and ii., by Frederick T. Roberts, M.D., B.Sc., F.R.C.P.—Lecture on Domestic Poisons, by R. Le Neve Foster, F.C.S.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Louisville Medical News—Nature—El Siglo Médico—Révue Médicale—The Dublin Journal of Mental Science—Imports and Exports—National Board of Health Bulletin—North Carolina Medical Journal—The Students' Journal and Hospital Gazette—The American Practitioner—Centralblatt für Gynäkologie—Archives of Dermatology—Index Medicus—New York Medical Journal—The American Bookseller—Philadelphia Medical Times—The Gosseller—Washington National Board of Health Bulletin—The Sanitary Journal.

APPOINTMENTS FOR THE WEEK.

November 29. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

December 1. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. Lichtenberg will show a Splint for Excision of Knee-Joint in Cases treated Antiseptically. Mr. J. Knowsley Thornton, "On Ovariectomy following Incision; Long Drainage; and Supposed Case of Ovarian Tumour—(three cases)." Mr. H. A. Reeves, "On the Treatment of some Affections of the Urethra and Bladder in the Female."

ODONTOLOGICAL SOCIETY, 8 p.m. Professor Flower, "On Some Recent Specimens of Abnormal Dentition in the College of Surgeons Museum." Casual Communications from Dr. Walker, Mr. F. Canton, and Mr. Van der Pant.

ROYAL INSTITUTION, 5 p.m. General Monthly Meeting.

2. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopaedic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

PATHOLOGICAL SOCIETY, 8½ p.m. Dr. N. Moore—1. Calvaria from a Case of Congenital Syphilis; 2. Cancer of Gall-Bladder, Ulceration into Duodenum. Mr. H. Cripps—Enchondroma of the Arm. Dr. W. Ewart—Aneurism of Aorta; Haemorrhage into Pericardium. Dr. Barlow—1. Emphysematous Cyst of the Lung, with Atelectasis; 2. Congenital Syphilitic Bone-Disease. Mr. Hutchinson—1. Supposed Rupture of Roots of Brachial Plexus (living specimen); 2. Two Cases of Peculiar Skin Disease (living specimens). Card Specimens: Dr. Ewart—Two Specimens of Aneurism at Base of Heart. Mr. Walsham—Myo-Sarcoma of Head of Tibia. (Specimens on view at 8 p.m.)

3. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

EPIDEMIOLOGICAL SOCIETY, 8 p.m. Dr. J. F. Payne, "On Certain Points connected with the late Epidemic of Plague in Russia." Dr. Norman Chevers, "Notes on the Relapsing Fever of India."

OBSTETRICAL SOCIETY, 8 p.m. Specimens: Dr. Godson—Ruptured Fallopian Tube. Dr. Galabin—Menstrual Decidua, etc. Dr. Cleveland—Milk Gelatinous Cord. Dr. Heywood Smith—Uterus Removed by Hysterotomy, Ovum Forceps, and other Instruments. Paper: Professor Schäfer—"Report of Experiments on Transfusion of Blood."

4. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

HARVEIAN SOCIETY (Meeting of Council, 7.45 p.m.), 8 p.m. First Harveian Lecture—Edmund Owen, F.R.C.S., "On Certain Practical Points in connexion with the Surgery of Childhood."

5. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 22, 1879.

BIRTHS.

Births of Boys, 1199; Girls, 1175; Total, 2374.

Average of 10 corresponding years 1869-78, 2295.7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	889	871	1760
Average of the ten years 1869-78 ...	826.2	793.1	1619.3
Average corrected to increased population ...	...	...	1733
Deaths of people aged 80 and upwards ...	...	...	61

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West ...	561359	...	7	12	3	4	...	1	1	2
North ...	751729	...	12	16	4	11	...	11	2	5
Central ...	334369	...	4	6	...	4	...	2	...	4
East ...	639111	...	12	31	4	8	...	7	...	1
South ...	967692	1	22	41	9	14	1	8	...	8
Total ...	3254260	1	57	106	20	41	1	29	3	20

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	29.984 in.
Mean temperature ...	...	37.4°
Highest point of thermometer ...	...	54.6°
Lowest point of thermometer ...	...	21.0°
Mean dew-point temperature ...	...	34.3°
General direction of wind ...	...	S.W. & N.E.
Whole amount of rain in the week ...	...	0.68 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Nov. 22, in the following large Towns:—

	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Nov. 22.	Deaths Registered during the week ending Nov. 22.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.		Inches.	In centimetres.
Boroughs, etc. (Municipal boundaries for all except London.)										
London ...	3620868	48.0	2374	1760	54.6	21.0	37.4	3.00	0.68	1.73
Brighton ...	105608	44.9	56	43	55.8	25.1	38.0	3.33	1.03	2.64
Portsmouth ...	131821	29.4	85	39	54.0	30.0	40.7	4.83	0.00	0.00
Norwich ...	85222	11.4	60	43	...	...	...	...	...	...
Plymouth ...	74293	53.3	40	31	57.0	30.8	42.4	5.78	0.60	0.00
Bristol ...	209947	47.2	136	93	...	...	...	...	...	...
Wolverhampton ...	75100	22.1	57	34	53.5	20.0	38.5	3.61	0.56	1.42
Birmingham ...	338884	46.3	272	184	...	...	...	...	...	...
Leicester ...	125622	39.3	74	54	55.5	23.5	38.3	3.50	0.62	1.57
Nottingham ...	169396	17.0	124	82	55.4	20.9	38.9	3.83	0.79	2.01
Liverpool ...	538338	103.3	419	317	53.2	29.4	43.1	6.17	0.39	0.99
Manchester ...	361819	84.3	225	184	...	...	...	...	...	...
Salford ...	177849	34.4	123	82	...	...	...	...	...	...
Oldham ...	111818	23.9	70	44	...	...	...	...	...	...
Bradford ...	191046	26.5	120	84	56.5	27.2	42.3	5.73	0.60	1.52
Leeds ...	311860	14.5	194	152	59.0	28.0	42.5	5.84	0.64	1.63
Sheffield ...	297138	15.1	201	98	56.5	22.0	40.0	4.44	0.68	1.73
Hull ...	146347	40.3	105	51	53.0	23.0	39.9	4.39	0.61	1.65
Sunderland ...	114575	41.4	68	52	58.0	31.0	44.2	6.78	0.62	1.57
Newcastle-on-Tyne ...	146948	27.4	85	61	...	...	...	...	...	...
Edinburgh ...	226075	53.9	140	73	55.5	32.5	43.4	6.38	1.04	2.64
Glasgow ...	578156	95.8	349	230	55.8	40.0	46.6	8.12	0.36	0.91
Dublin ...	314666	31.3	158	230	54.0	32.3	45.7	7.61	0.52	1.32
Total of 23 Towns in United Kingdom	8502896	38.6	5541	4021	59.0	20.0	41.4	5.22	0.57	1.45

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.98 in. The highest reading was 30.30 in. at the beginning of the week, and the lowest 29.66 in. on Friday evening.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON RETENTION OF MUCUS.

By J. MATTHEWS DUNCAN, M.D., LL.D.,

Physician-Accoucheur and Lecturer on Midwifery at St. Bartholomew's Hospital.

ATRESIA of the genital canal may be congenital or acquired; and in either case it may be the cause of retention of mucus by damming up the natural secretions of the parts. But when atresia is present it is not a necessary consequence that accumulation will take place.

To-day I propose to speak of retention of mucus produced by other mechanisms, and at present I only say that stricture, which is commonly supposed to be the paramount cause of these retentions, is almost unknown to me as such, except, indeed, when it is so tight as completely to close the passage, in which case it should be properly termed, not a stricture or contraction, but a complete closure.

Atresia may occur at any part of the course of the genital passage; and I show you here an example of what happens to be the commonest atresia—atresia of the internal os uteri—acquired, coming on in old age, and producing in the specimen I show you a pyometra, the body of the uterus being distended so as to be a hollow globe capable of containing a small apple.

Retention of the vulvar secretion is due to want of cleanliness. The sebaceous and mucous secretions get inspissated, and frequently accumulate in the folds of the external organs. When they do so, women suffer, not always, but often, from slight superficial inflammation; and the cure of this state is to be brought about by cleanliness. But the irritation consequent upon this condition sometimes requires special means for its removal, and this may be very well effected by dabbing the irritated parts with a concentrated solution of boracic acid—an application which will be found very useful in other cases of a like kind.

Retention of fluid, which may be mucus or muco-pus, in the Fallopian tubes, I shall dismiss with a very few words, chiefly because, although not a rare thing, it is little known to us in clinical practice. We cannot diagnose it. It may be guessed to be present in consequence of the feeling of a soft tumour upon one or other side of the uterus, or on both; and sometimes the occurrence of copious discharges through the womb. This disease is called hygroma of the Fallopian tube, sometimes hydrops tubæ profluens. It may be produced by atresia of both ends of a Fallopian tube, or by atresia of one (the uterine) end, while the other is adherent to the ovary, the adhesion being such as to close the tube. But in this disease you may have the occurrence of retention without atresia of the internal orifice. This is a sphincteric opening, and during the child-bearing period of life it must open and close; and there is every probability that some cases of great occasional flux from a Fallopian tube through the uterus are to be explained by the occasional opening of the internal extremity of a Fallopian tube, which closes again. But this is a matter of little practical importance, because the condition is rare, and it is not to be satisfactorily diagnosed during life.

It is retention of the vaginal and uterine mucus that I have chiefly to speak of to-day, and my paramount object is to make you comprehend the mechanism of this retention, for you will see that the comprehension of it leads to intelligence in many subjects besides those immediately under consideration in this lecture.

I have said that the explanation by a real or supposed stricture does not suffice; and that you may understand the mechanisms that do operate, I shall first speak of two great forces which are not fitted to explain this retention.

There is a force which powerfully draws inwards into the cavity of the belly, called "adspiration"—a force produced by negative pressure within the abdomen. This force is similar to that of inspiration in thoracic action. It is called an "adspiratory" force, a sudden and great increase of the retentive power of the abdomen. Of the action of this force I can give you examples in the impregnation of women under extraordinary circumstances. This explanation of such

impregnation is of old date, although it is only now that it has been made the subject of careful scrutiny and experiment. A woman may be impregnated without penetration. Of this a good indisputable instance is known in the famous case where a woman conceived whose vagina was only so big as to admit a goose-quill. Many cases of alleged impregnation without penetration are open to dispute, but I shall narrate one which is not open to doubt. A woman was operated on in Dublin for vesico-vaginal fistula, the operation being intended to produce entire closure of the vagina. It succeeded very well, and the woman's condition was much improved by it. The urine collected in large quantity in the cloaca formed by the bladder and vagina, and she passed it chiefly by the urethra. She noticed that, when she menstruated, in addition to urine some bloody fluid came through, a small opening on the anterior margin of the anus, and through which a surgical probe could be passed. The urethra was of natural dimensions. Her husband, who was a soldier, came home after a long absence, and she fell in the family way. I delivered this woman of a living child at the full time, and had thus opportunity of examining her carefully a second time. It was necessary to lay open freely the united parts to allow the child to come out, which it eventually did. Of course she might have become impregnated through the urethra, but she said she became so through the little aperture; and as there could be no penetration through the urethra, for our present purpose the demonstration is the same. This is an example of strong adspiratory force, and it will not furnish us with an explanation of retention because it is not constant in its action.

The opposite of this is strong expulsion—an action exemplified when a man forces a hernia into the inguinal canal; a force familiarly known in delivery, in defæcation and in urination. These three last are instances of this expulsion, concerning which I must say a few words. There are two forces which take part in producing expulsion. First, the contraction of the organ which is to be evacuated, and, second, the general abdominal expulsive force, commonly called "bearing down."

In the case of "adspiration" there is only one force: in this case of expulsion there are two: and it becomes necessary to consider the respective parts the two forces take in the three functions.

In the case of parturition the body to be expelled is nearly solid, and only to a slight extent of a viscous character. In accordance with this, you have the expulsion resisted or stopped by a stricture or by even a slight contraction in any part of the passage. Further, you have the expulsion chiefly brought about by the organ itself, by the contractions of the uterus in "pains"—the "bearing-down" coming in merely as an adjuvant.

Let us now consider defæcation. Here the body to be expelled is normally viscous, and here also you have the influence of an obstruction by stricture well seen. But this will have no effect if the stools are fluid. Its influence is limited to the case of stools more or less approaching solidity. In the case, then, of the rectum, you have some degree of contrast with the uterus. The uterus can squeeze itself so tightly together as to close its cavity completely, and evacuate itself not only of the ovum, but also of the last drop of fluid contained in it. The contractions of the rectum are comparatively slight, and I know of none so tight as even to embrace the finger. The rectum, then, is an organ emptied partly by its own contractions, but chiefly by the bearing-down or expulsive abdominal effort; positive pressure in the abdomen being, in ordinary defæcation, temporarily increased to press out the contents.

If you consider the bladder, you have an organ expelling not a body nearly solid, not a mass of considerable viscosity, but a fluid; and in accordance with this you will find that the influence of strictural obstruction—such as is so efficient in parturition and defæcation, producing retention—is unknown. In the case of the bladder it is commonly stated—and you will find it in the most recent text-books—that the urine is evacuated by contraction, and it is implied that this is the case until the end of the discharge; but I think this is erroneous. It is mainly by bearing-down that the urine is evacuated. There is an inhibitory action upon the neck of the bladder, whose contraction has to be overcome, but when this part of the passage is made permeable, the bladder is emptied chiefly in consequence of abdominal pressure. You do not feel the bladder contracted if you examine a woman

after urination. In the whole of my experience I remember only twice feeling the bladder contracted, and like a small tumour, about the size of a hen's egg, between the uterus and symphysis pubis. Again, if you ask a woman to urinate before an examination (as it is sometimes necessary to do), and measure the organ by a sound both before and after the emptying, you will find it nearly as long after as before evacuation. If the bladder contracted so as to be felt by the examining finger, per vaginam, as a small softish tumour, then you would either not get your sound introduced, or you would find it enter only about three inches instead of five, which is the ordinary measure of a healthy bladder, counting from the urethral orifice. The cubic capacity of the bladder is destroyed by evacuation, but not its dimension as measured by the sound. And this demonstrates that the muscular contractions of the bladder are not so important a force in urination as is the bearing-down abdominal force.

The adspiratory and expulsive forces, when temporary and powerful, do not explain the retentions of mucus of which I am speaking to-day; we must have a gentle and constantly acting "adspiratory" force.

You have mucus retained when there is this condition; and this is found exemplified in a variety of circumstances. You may have a pessary causing large vacant spaces which become filled up by mucus, which not rarely becomes foetid. Sometimes fibroids projecting leave an interspace which becomes filled with uterine mucus.

In the case of the uterus, you might suppose it would require a greater force to expand it than can be afforded by retained mucus; but everything we know tends to show that only a minute force is necessary to do this. The growth of the ovum in the uterus can exert only a slight force, and the uterus is during pregnancy not tightly replete. Experiments can also be made upon the internal orifice of the neck of the womb, which is the hardest portion of the organ to dilate, and they show that the force required for this purpose is so small as to be measured with difficulty, if such force acts slowly and continuously. Much, however, has to be done to enable us to understand how this constantly acting force is produced and operates. I shall at present limit myself to giving statements to show that it has a real and clinically important existence.

In one of the cases of hæmatometra which I have punctured by a large cannula, a collection of blood in the uterus, nothing flowed. I thought at first that my diagnosis must be wrong. The same happens sometimes in the case of the bladder of urine; you put in a catheter, and nothing comes until you apply pressure above the pubes. In this case of hæmatometra, when pressure was applied, the blood flowed, and my diagnosis was confirmed. There was, of course, some force retaining the blood. A lady had ulceration of the interior of the body of the uterus, which was not flexed or verted: this uterus expanded so as to be large enough to contain the fist; the neck was widely open, and instruments as large as a finger were introduced into it. The uterus remained full; only the overflow escaped. In a former lecture I mentioned a case in which the cervical mucus was found filling the cavity of the body of the uterus. In that woman the cervical mucus, instead of flowing into the vagina, flowed up into the uterus, distending it. Her uterus was filled with healthy glassy mucus, the tag of which was connected with that in the cervix.

Collections of mucus in the cervix are not rare, and in the great majority you have the os uteri patulous. Lately it has been alleged that stricture of the external os leads to the collection of one or two drachms of mucus in the cervical cavity, and this is described as a disease dependent upon the stricture. I have seen very many cases of dilated cervix replete with viscid mucus, where the external os uteri was widely open. Cases of minute external os uteri, stricture of the external os, are uncommon; you will not see more than a few in a life of special practice. In every such case that I have examined there has been no unnatural amount of mucus in the cavity of the cervix. Under these circumstances there can be no difficulty in arriving at the conclusion that stricture of the os has very little to do with dilatation of the uterus by cervical mucus.

A case occurred some time ago in "Martha" where the os externum was in the state of extreme stricture. It was remarkable because the woman had borne a child. In that case there was no retention of mucus in the cavity, and there was no dysmenorrhœa. The case is worthy of atten-

tion on other grounds, for it was a sad and terrible example of fatal accidents which sometimes occur in practice. A very small wound led to this woman's death from peritonitis. The death is perhaps partially explained by the existence of old syphilitic disease, made certain by the condition of her liver, and by other observations. This misfortune, however, gave us the opportunity of examining this woman's uterus after death, and we found the state that had been diagnosed.

M. M., aged thirty, married for thirteen years, had a miscarriage thirteen years ago, and a child twelve years ago. Catamenia began at fourteen, and had been regular till a year ago. During the last year the periods have been delayed, the interval being sometimes seven weeks. The periods last only for one day, and there is no dysmenorrhœa. Cannot long retain urine, having to get out of bed several times in the night. Urine 1024, neutral; contains phosphates; no sugar nor albumen. Complains of sudden intermittent pain in the side, and of a white discharge from the vagina. Examination of vagina discovers nothing abnormal except a longitudinal cicatrix near the cervix uteri on the left side. The os uteri can neither be seen nor felt; but a reddish spot and a minute tag of mucus mark the spot where it is. The smallest probe at hand cannot be introduced, but subsequently a probe of the size of No. $\frac{1}{2}$ catheter is passed. While it is in the os, two small nicks are made in the margin of the cervix, and a common uterine probe is now easily passed, and discovers only normal conditions of the cervix and body of the uterus. A bougie was passed daily through the external os for two days, and on the third day a uterine sound was passed into the cavity of the body of the uterus. On this day she showed symptoms of peritonitis, and died after five days' illness. At the post-mortem examination, twenty-three hours after death, the peritoneum was found everywhere covered by soft lymph. The liver had several depressed scars dipping into its substance. The spleen large and soft. The right broad ligament contained a small abscess with about half an ounce of pus. The uterus normal. A little excoriation of the cervix, and a little pus around the cervix. External os would admit a uterine probe.

Now I come to the vagina. The secretions of the vagina are generally absorbed. In what we may term a perfectly healthy natural woman there is no discharge. Secretions in more than usual quantity, whether healthy or morbid, generally flow from the vagina; but not always, for it may be full of the secretion, normal or morbid, inspissated or otherwise altered in character by age.

As an example of unnatural retention in the vagina, I may tell you of a case which occurred in an elderly woman who came to me not long ago, complaining of a foetid discharge from the vagina. A foetid and loosely felt ring of hairs was found around the neck of the uterus. In this case you see that even foreign bodies had no tendency to pass out. In women of any age you may have fluid retained. Menstrual fluid is sometimes retained, and sometimes becomes putrid.

Copious secretions into the vagina generally soon pass out of it. In some women this tendency is so great, that, if there be only slight increase, they feel moisture on the labia, and are made anxious. Such slight increase is in many women produced by much standing or prolonged walking.

In the great majority of women the semen is retained; but in some, and even in some fertile women, there is profluvium seminis; that is, semen is discharged while they are lying, or as soon as they get out of bed. This is a case in which the gentle adspiratory force is not in natural action.

In "Martha," any day, you may see cases of vaginal secretion retained. It is most common in the old, and in them the retained secretion sometimes gives rise to a slight degree of vaginitis; but in most, such accumulated secretions are expelled in defæcation. The healthy "whites," when retained long, become granular and lose their pure colour, becoming of a dirty hue.

A great deal of bad practice is pursued in using vaginal lotions when such are not required. In cases of healthy "whites," milky in character, you may use a mild vaginal lotion to strengthen the passage, but you should do so with reluctance. The best treatment is to use constitutional strengthening remedies, not lotions. It is where discharges do not take place that you find most advantage from lotions, as in cases of retained secretions.

When you require vaginal lotions for cleanliness, the best instrument to use is a Higginson's syringe with a proper

female piece. The quantity of injection should be about half a pint. It may be simple tepid water, or with some antiseptic added to make it more thorough.

The retention of mucus in the cervix is generally connected with a catarrhal condition of the part. I have never seen a case, as I have told you before, in which it was necessary to make incisions for a real or supposed stricture to let out the mucus. What is wanted is to cure the catarrh—a proceeding which I have gone over with you in a former lecture, and which you may see at any time practised in "Martha."

Retention in the body of the uterus itself is a more difficult matter. The mucus of this part is a thin, clear, slightly viscid fluid; but when it accumulates it is almost certain to become turbid; and in some cases it does accumulate without disease of the walls of the organ. Such accumulations are mostly seen, not in simple flexion of the womb or in cases of dysmenorrhœa, but in chronic inflammatory conditions of the body of the uterus or of its lining membrane.

ORIGINAL COMMUNICATIONS.

SOME REMARKS ON THE OCCURRENCE OF TYPHOID FEVER IN INDIA.

By Surgeon-Major M. C. FURNELL, M.D., F.R.C.S.,
Senior Physician, Madras General Hospital.

IN the *Medical Times and Gazette* of September 20, 1879, in one of Dr. Chevers' most interesting papers "On Diseases of India," I read as follows:—"Notwithstanding the apparent clearness of the above data, the question, Is enteric fever at present a common or rare disease in India? is—ready as its solution ought to be—certainly one of the most perplexing as it assuredly is one of the most practically momentous questions with which medical men in the country have to cope. It being a plain fact that if we, encountering a case of paludal remittent with bowel complication, insist upon calling it true enteric fever, and treat it as such, withholding that free and steady use of quinine which is the only remedy, that case will almost inevitably end in death."

From the above and other remarks in Dr. Chevers' most interesting paper, it is evident that he still doubts the existence of true enteric fever in India, or at any rate deems it still rare. We have quite, in Madras (I mean the town proper), made up our minds not only to its existence, but to its being, occasionally, anything but rare. During the cold season of 1878-79 it was very common, and I had in my wards, several times, as many as half a dozen cases together. I was sceptical at one time of its common occurrence, but last year quite removed my doubts. I will briefly epitomise three or four cases:—

W. G., an engineer on board of one of the B.I.S.N. Co.'s vessels, just arrived from Bombay, was admitted August 24, 1878. The ship was on her way round from Bombay to Calcutta, when, finding himself unwell and unable to do his duty, this patient sought admission into the officers' quarters of this Hospital. The diagnosis was not clearly made out at first: it was seen to be a case of continuous fever of some sort. There was a good deal of torpor, and the patient was unable to give a clear history of himself. As regards spots, he was covered with prickly heat from the crown of his head to the soles of his feet. The bowels were loose, and it soon became evident they bore all the characteristic ordinary appearance of typhoid fever stools. There was no drum belly, but slight gurgling in the right iliac fossa, and some, not very marked, tenderness on pressure. The looseness continued—three or four characteristic stools per diem; on September 7, fifteen days after admission, blood was first seen in the motions. On the 8th it was very copious; from this date he began to mend until the 20th, when he experienced a sudden rise of temperature and a recurrence of hæmorrhage. After this time, with slight fluctuations, he progressed more or less favourably. He had some congestion of the lungs, and other less serious complications, the thermometer becoming permanently normal on October 5, forty-three days after admission.

U. P., a missionary, aged twenty-nine, was admitted on August 14, 1878, a few days before the previous case, and at first, from the mildness of the symptoms, was in marked contrast to the other. This is the history: He lived in

Black Town, Madras, and was feeling somewhat out of sorts, when he started on a professional journey to the Mofussil. He got as far as Erode—about a day's journey—when, finding himself quite unfit for work, he returned, and came into hospital. At first the diagnosis was not clear. He could give little or no account of himself. He was in a drowsy state, and there were no very clear symptoms. Bowels were confined. Temperature 101° to 102° . Two days after admission diarrhœa set in, and the motions became characteristic. Gurgling and tenderness were detected, and some spots. He progressed most favourably, and in the fourth week since his first falling ill (a friend who called to see him, and who lived with him, furnished the history we were unable to get at first from the patient) his temperature touched normal, and the patient, bright and cheerful, was apparently on the high road to recovery. I am afraid his diet-sheet was not too strictly scrutinised, for on the thirty-third day his temperature began to rise again. At first this attracted little notice. His diet was diminished, and he seemed to improve; large, but the clinical clerk, on testing his urine, discovered a quantity of albumen, which was not there on admission, for on his chart, on the urine line opposite albumen, is clearly written "None." His friend, however, who called daily, informed us he had had kidney disturbance some months back. He had no return of typhoid symptoms except increase of temperature, no diarrhœa nor hæmorrhage, but he grew weaker and weaker, became delirious, and died on the forty-sixth day. A post-mortem examination showed ulceration of Peyer's patches, especially down near the ileo-cæcal valve. The ulcers were numerous, but all healing or healed; the sloughs thrown off; none looked in an angry or irritable state. The solitary glands of the large intestines were in one or two places similarly affected. Spleen enlarged and soft. The kidneys were enlarged and fatty, weighing nine to nine and a half ounces each. This patient had evidently got over his enteric fever, but succumbed to the kidney complication.

G. H., a student of theology, was admitted on December 10. He had been ailing for the previous eight days with slight fever, but able to be about. He is feverish at night, but towards morning feels better. He can assign no cause for his illness unless it is the drainage of the locality he inhabits—Black Town—which is bad. The systemic examination gives nothing particular. The breathing is somewhat hurried, but the stethoscope reveals nothing wrong; the tongue is furred, white, dry; appetite good. Bowels loose, contain no blood or mucus; four motions during the twenty-four hours. Temperature last evening 104° , this morning (day of case-taking) 101° . On December 11, the day after admission, he had suddenly a profuse hæmorrhage from the bowels, which caused him to faint whilst recumbent in bed. I happened to be in the ward at the time, and saw the patient, who in a few minutes was reduced to a pitiable state, more resembling the collapse of cholera than anything else. Pulse not to be felt; skin covered with a cold, clammy perspiration; and breathing laboured and sighing. The hæmorrhage was stayed by the hypodermic injection of ergotine. The bleeding brought the temperature down to 99° , where it remained for forty-eight hours, then gradually rose in the most approved step-like gradation, as described in systematic books—but so rarely seen in actual practice,—for the next six days, until it reached 104° , where it had been before the hæmorrhage. On December 14—four days after admission, twelfth day of illness—occurs this entry: "Spots well marked on the chest; but bowels only moved once—motion loose, but contained no blood." On the 16th, patient was delirious; "spots still well marked"; bowels only moved once during the last twenty-four hours. On the 18th, diarrhœa set in again; motions loose, offensive, ochrey, but contained no blood; patient rational; "spots well marked." On the twenty-second day thermometer came down from 104° to 101° ; next day, 102° to 100° ; and then gradually sank till the twenty-eighth, when it had reached 99° . Here there is a break in the record: the case was handed over to another clinical clerk, and his first entry was on January 10, "Temperature normal"; and the patient was discharged January 29, "cured."

The two following cases are most interesting as showing how India may be invaded by typhoid fever by routes other than the overland:—

H. P., a French sailor, admitted from the ship *Oncle Félix*,

February 27, 1879. He was speechless, almost insensible; he could put out his tongue when asked, and it remained protruded, but he could not answer questions. There was abundant crepitation over both lungs. Tongue covered with a dirty brown fur, dry and glazed. Bowels constipated; no motion passed, his comrade said, for eight days. There was great tenderness over the whole abdomen on pressure, as evinced by the patient's face, especially over ascending colon. He gradually sank, and died forty-eight hours after admission. On post-mortem examination, the immediate cause of death was found to be volvulus of the descending colon, but the Peyer's patches all along the ileum, more especially nearing the valve, were found to be in a state of ulceration, some covered with ragged yellow slough, others large irregular ulcers almost perforating the walls of the intestines. There was also general peritonitis.

A few days after this sailor's death, L. T., aged fourteen years, a "mousse" (cabin boy) from the same vessel, *Onclé Félix*, was admitted. He had fever, said to be of eight or nine days' duration. He had well-marked characteristic spots on abdomen, chest, and back—an abundant crop. Much restlessness, partly from fright at finding himself amongst strangers. Some tenderness over abdomen on pressure; creamy, furred tongue. Soon after admission, two copious, dark, tarry motions; subsequently a mild diarrhoea of ochrey stools. He progressed well, and was discharged on April 2—twenty-one days after admission; twenty-nine or thirty days from commencement of illness.

The following case will tend to show that for the future we may look for cases of enteric fever amongst natives; hitherto I have seen none, or I have overlooked them:—

Ramen, a Hindoo, was admitted July 21, in a strikingly typhoid state: lips and teeth covered with sordes; tongue brown, dry, and glazed; considerable stupor; hurried respiration; pulse small and frequent. There was abundant crepitation over both lungs, and the case was supposed at first to be a case of neglected pneumonia. Temperature in the morning 100° Fahr., evening 105° Fahr.; during the day it was noticed the patient passed four or five loose ochrey motions. The next day the patient was better. On July 23 (third day in hospital) he was much better—temperature 101° Fahr., the sordes had disappeared from the teeth and lips, and he was bright and intelligent,—but the motions continued of the same characteristic colour, crepitation abundant anteriorly and posteriorly, expectoration muco-purulent. It was still considered a case of pneumonia and neglect with privation; but opinions were divided—an intelligent minority deemed it a case of enteric fever. On July 24 it was found the patient had taken a turn for the worse. He was covered with a profuse clammy perspiration, and was delirious; pulse imperceptible at the wrist; abdomen distended; respirations 40 per minute. In spite of restoratives fully administered, he sank and died. We were enabled—a rare thing with Indians having any friends—to obtain a post-mortem. The lungs were found congested, and in the lower lobe of the right lung hepatisation had commenced. There was pretty general peritonitis, and the cavity contained some fluid faecal matter. The jejunum and ileum were deeply congested. The lower part of the ileum to the extent of two feet showed ulceration of Peyer's patches; and one of these ulcers had perforated the intestines—hence the collapse and death.

Now, if these cases—and I could add many more—are not cases of enteric fever, what are they?

As regards the latter part of the extract I have made from Dr. Chevers' paper, concerning the use of quinine, the risk, at any rate in the Madras General Hospital, is reduced to a minimum, for the plan of treatment, as laid down by Liebermeister in Von Ziemssen's "Cyclopædia of the Practice of Medicine," is the one I have on the whole found answer best. Good doses of quinine, especially if repeated when the thermometer shows a downward tendency, have considerable influence on the temperature. Accidental complications are of course met by appropriate remedies.

CASE OF ANURIA.—In the *Union Médicale* for November 4, Dr. Dubuc relates a case of anuria in which the patient lived for seventeen days without having expelled a single drop of urine. He died on the seventeenth day with symptoms of uræmic intoxication, but no autopsy was permitted.

THE PATELLAR TENDON REFLEX.(a)

By BYROM BRAMWELL, M.D.,

Late Physician and Pathologist to the Newcastle-on-Tyne Infirmary; late Joint Lecturer on Clinical Medicine and Pathology in the University of Durham College of Medicine, Newcastle-on-Tyne.

(Concluded from page 554.)

LESIONS of the particular portions of the spinal cord which contain the controlling fibres, passing downwards from the brain, will, by interfering with the functions of those fibres, lead to an increase in the patellar tendon reflex.

Some of these controlling fibres are supposed to pass downwards in the lateral columns.

In lesions, therefore, of the lateral columns we should expect to find the patellar tendon reflex exaggerated; and such is the fact.

Lesions of the lateral columns may be primary or secondary, the latter being by far the most common.

Secondary or descending degeneration of the lateral columns sometimes follows spinal myelitis.

The following are the notes of a case of paraplegia resulting from acute myelitis. In it the patellar tendon reflex was enormously increased, the increase being partly the result, in all probability, of exalted excitability of the grey matter.

Case 10.—Acute Myelitis—Paralysis of Lower Extremities and of the Bladder and Rectum—Recovery at the end of five weeks—Relapse—Total Loss of Motion and Sensation—Paralysis of Bladder and Rectum—Flaccidity of Muscles—Some Increase of the Patellar Tendon Reflex—Slow Partial Recovery—Onset of Rigidity of Muscles—Spastic Gait—Enormous Increase of Patellar Tendon Reflex.

C. J., aged forty, married, a shoemaker, was admitted to the Newcastle-on-Tyne Infirmary, under my care, on June 15, 1878, suffering from paraplegia.

Previous History.—He has been a fairly healthy man through life, but has drunk hard (whisky and beer). Seventeen years ago he had rheumatic fever. Two years ago he contracted syphilis. The present attack commenced eight weeks ago. He used, he says, to have a bad habit of holding his water. One day, after sitting at work for a long time, during which he overcame his desire to urinate, he found, on attempting to get up, that he was unable to do so. His feet were cold and numb, and he felt a pain at the lower part of the abdomen. After a little time he managed to move his legs, and walked home with assistance. The next morning he was very much pained in the region of the bladder, and was unable to make water; the urine had to be drawn off with the catheter. For the next five weeks the paralysis of the bladder continued, and he had very little power in the lower extremities. He then began to improve, and became able to walk about with the help of a stick. A fortnight ago he again suddenly lost the use of his legs, and has been confined to bed ever since.

For two months before the first attack he noticed that his legs were weak and shaky, and that he had some difficulty in making water.

Family History good.

Present Condition.—Is very pale and anæmic. The lower extremities are completely paralysed, the muscles being flaccid and somewhat wasted. The bladder is quite paralysed. The bowels are very costive.

Sensibility of all sorts is very greatly impaired in the lower extremities. He says he could feel nothing during the first week of the relapse. He feels a tightness round the lower part of the abdomen. At the upper edge of this band there is very distinct hyperæsthesia.

Both the skin reflex and the reflex from the patellar tendon are exaggerated.

There is no irregularity of the spine and no tenderness on pressure.

The temperature of the right foot is 97.2° Fahr., that of the left 96.5° Fahr. The memory is somewhat impaired; the nervous system otherwise natural. The tongue is dry, and he complains of thirst. The pulse is 60, full, and somewhat irregular.

He was treated with the liquid extract of ergot and with tonics. He improved considerably.

(a) Read before the Northumberland and Durham Medical Society on November 14, 1878, and before the Medico-Chirurgical Society of Edinburgh on June 4, 1879.

On September 7, being able to walk with a little assistance, he went home of his own accord.

For some time after his discharge he continued *in statu quo*, some days better, and other days worse. One day he was able to walk round his house by the help of two sticks. At the beginning of November he began to feel his legs stiff, and noticed that they trembled whenever he attempted to walk; this trembling was often so violent as to shake the people who were supporting him.

On December 2 he was re-admitted to the Infirmary under my care. He could still move the legs when lying on his back in bed. If, however, he turned on to his face, he was unable to stir them. Any exertion caused the legs to become rigid. Sensibility was now almost normal.

All the reflexes very greatly exaggerated. On striking the ligamentum patellæ the leg was jerked violently forward, and continued to be so jerked for two or three minutes. A blow on the ligamentum patellæ of one leg was followed by strong jerking movements of both legs: these movements were alternate—that is to say, they did not occur exactly at the same time.

On freezing the skin over the ligamentum patellæ the movement was very greatly reduced in intensity, but was still present. It now resembled, both in its extent and in the fact that it was a single jerk, the normal movement in a healthy person. At the commencement of the freezing—i.e., when the spray first came in contact with the skin over the ligamentum patellæ—a tonic contraction of the quadriceps, resulting in elevation of the foot, took place.

The ankle clonus was very marked. On striking a limited area over the inner edge of the right tibia, a very marked upward movement of the leg and foot resulted, quite different, however, from the jerk due to the contraction of the quadriceps. The thigh was in this movement raised from the table, the movement being apparently due to a contraction of the psoas and iliacus muscles.

He cannot walk unless supported on each side; his gait is then very peculiar and characteristic. The feet and knees interlock, the feet stick to the ground, and the toes in movement make a scraping noise. As soon as the toes leave the ground, the foot is jerked upwards, and raised very much higher than one would expect. The foot is then brought forward, and tends to cross its fellow of the opposite side. The legs often strike when the toes touch the ground. He complains of feeling the back and hips weak. The urine has still to be drawn off with the catheter.

The electrical condition of the muscles was carefully tested: there was a simple diminution, moderate in extent, to both forms of current.

Progress of the Case.—He remained under treatment for some months, but there was no real improvement. Remarkable changes, however, took place in the rigidity of the limbs and the extent of the tendon reflex. For some weeks the rigidity was much less, and the patellar tendon reflex proportionately diminished; then both returned, and continued to be as great as ever. These alterations could only, I think, be due to some altered condition of the grey substance of the cord, whereby its excitability to reflex stimulation was altered.

Secondary degeneration of the lateral columns also occurs after lesions of the internal capsule and cortical motor centres of the cerebrum.

The following case, which occurred in the practice of my friend and late colleague, Dr. Philipson, to whose kindness I am indebted for the opportunity of examining the patient, and with whose permission I publish these notes, is a good example of hemiplegia presumably associated with secondary lateral sclerosis. In it the patellar tendon reflex was much greater on the paralysed than on the sound side.

Case 11.—Case of Hemiplegia and Rigidity in a Boy aged nine, following a Wetting—Tendon Reflex Exaggerated on the Rigid or Paralysed Side—Great Improvement under Treatment.

D. C., aged eleven, schoolboy, was admitted to the Newcastle-on-Tyne Infirmary, under the care of Dr. Philipson, on September 26, 1878, suffering from left-sided hemiplegia.

Previous History.—He had been a healthy lad until two years previously, when he caught cold after bathing in his clothes and allowing them to dry on. He was confined to bed for some time with fever and headache. The attack

was followed by paralysis of the left arm, left leg, and left side of the face.

When admitted to the Newcastle Infirmary, the paralysis of the arm, leg, and face was still very marked; he could walk with great difficulty; the paralysed limbs were very rigid and contracted. He was treated with iodide of potassium and blisters to the right side of the head, Dr. Philipson having diagnosed that the hemiplegia depended on arachnitis and effused lymph. Contrary to the usual experience in old-standing cases of hemiplegia with rigidity, he steadily improved: the rigidity became much less, he regained to a large extent the use of the lower extremity, and to a considerable extent that of the upper.

I examined him a few weeks after his admission, while the rigidity of the leg was still marked; *the patellar tendon reflex on the rigid or paralysed side was very much greater in extent than on the sound side.*

This case is very interesting from the rarity of the lesion (Dr. Philipson diagnosed it as hemiplegia resulting from arachnitis) and from the great improvement under treatment.

Primary sclerosis of the lateral columns is said to be the lesion in the disease which Erb calls spasmodic spinal paralysis. The following is a typical example of that affection:—

Case 12.—Paraplegia due to Rigidity and Weakness of the Lower Extremities—Sensibility Normal—Bladder and Rectum Normal—Patellar Tendon Reflex Exaggerated.

Robert S., aged forty-three, widower, a pitman, was admitted to the Newcastle-on-Tyne Infirmary, under my care, on April 19, 1877, complaining of difficulty in walking.

Previous History.—His present illness commenced about three years ago, and was brought on, he thinks, by exposure to cold and wet. The first symptoms were numbness and stiffness in the left leg. The right soon became similarly affected, and he began to have difficulty in walking. For the past year he has been much worse, and for several months has been unable to walk. There has been no pain. He has felt twitchings in the lower part of the abdomen, and has been much troubled with “twitchings” and “jumpings” in the lower extremities.

He never ailed anything until the present attack commenced. He has not had syphilis. Has been somewhat addicted to drink.

Family History good. No tendency to nerve disease.

Present Condition.—He is quite unable to walk unless supported on each side. He then gets along in a very characteristic fashion: the feet are dragged, the toes appearing to be stuck to the ground, and at each step cause a very unpleasant scraping noise; the knees seem stuck together. At each step the foot, which is carried forward, is brought in front of and across its fellow; this evidently adds to the difficulty in getting along. The back is much arched, and he seems to walk from the spine. He can stand with the feet close together; the back is not then arched, and there is no appearance of pseudo-hypertrophic paralysis. The muscular development of the lower extremities is good: there has been no wasting; in fact, he thinks the legs are, if anything, thicker than they used to be. The right calf, four inches below the head of the fibula, measures fourteen inches; the left at same spot, thirteen inches and three-quarters. The right thigh was broken when he was fourteen years of age, and the right leg is consequently a little shorter than the left.

When lying in bed his legs are kept extended; he is unable to raise the heels from the bed. The legs are generally rigid. This is always the case when he makes any attempt at voluntary movement or when passive movements are made.

Very marked tremblings and twitchings are seen in all the muscles of the lower extremities, also in the great pectoral muscles. Some of the twitchings are fibrillary. The twitchings and tremblings are much worse after exposure to cold.

Sensibility.—He has no pain, but complains of numbness in the soles of the feet. The toes sometimes feel swollen, and as if they would burst. The power of localising impressions is almost perfect. Tactile sensibility and sensibility to temperature are normal.

Intellectual faculties natural. Memory good. He sleeps well.

Special Senses.—Sight good; pupils equal and moderately contracted. Slight arcus senilis. Discs natural.

Hearing slightly duller on the left than on the right side.

Taste and smell natural.

Reflex from skin natural. Urination natural; bowels very costive.

Alimentary System.—Tongue slightly furred. Appetite poor. Bowels costive.

Circulatory System.—Heart-sounds weak but natural; pulmonary second louder than aortic. Radial pulse 72, regular, visible, and tortuous, but no jerking collapse. Temporal artery also visible and tortuous.

Respiratory System normal.

Urinary System normal. Urine, specific gravity 1023, and quite normal.

Progress of the Case.—He remained under treatment until the beginning of September, and was then discharged much *in statu quo*. While in hospital there were periods of temporary improvement, during which the rigidity became much less, and during which he was able to walk by himself. A variety of drugs were used: strychnine made him worse; ergot of rye seemed to be beneficial. (b)

In the next case, too, the lateral columns seemed to be those chiefly affected. The other parts of the cord were also probably involved at the earlier stage of the case. The case is interesting from the peculiar "hopping" gait.

Case 13.—Male, aged twenty-four—Gradual Weakness of Bladder—Exposure to Cold—Weakness, Numbness, and Rigidity in the Lower Extremities, gradually increasing to Absolute Paralysis, with Loss of Sensibility and Affection of the Bladder—Tension of Muscles, with Twitchings—Partial Slow Recovery—Hopping Gait—Great Increase of the Patellar Tendon Reflex and of the Ankle Clonus.

T. H. M., aged twenty-six, a compositor, single, was admitted to the Newcastle-on-Tyne Infirmary under my care on July 2, 1878, suffering from paraplegia.

Previous History.—Three years ago he contracted syphilis; the primary sore was followed by a skin eruption, sore throat, and loss of hair. With this exception he has enjoyed good health until two years ago, when his present trouble commenced. It was brought on, he thinks, by catching cold. One day, after bathing, he sat for some time on damp grass. He felt chilled, and a week afterwards he noticed that his feet and legs were cold and numb. He felt his legs and knees gradually become weaker and weaker. He became unsteady in his gait, and walked as if he were giddy. His legs were stiff and tense; he frequently felt twitchings and jumpings in the muscles. At the end of two months he had completely lost the use of his legs. There was no feeling in the paralysed parts; his urine dribbled away from him; the bowels were obstinately constipated. He was at this time admitted to the Sunderland Infirmary.

After careful cross-examination, I ascertained that for some months before the supposed commencement of the attack he had experienced some difficulty in making water, and had noticed that he was sexually weaker than formerly. He remained three months in hospital at Sunderland, and was then discharged slightly better, being able to stand and to move his legs up and down in bed. He has slowly improved since, and can now walk by the help of two sticks.

For some years he had been unsteady, but had been strictly teetotal for three months before the commencement of the attack.

The *Family History* is good; there is no evidence of any hereditary nerve-disease.

Present Condition.—He is well nourished and looks fairly healthy in the face. He can walk tolerably well with the help of sticks.

Gait.—The gait is "hopping" and very peculiar. Each step is evidently a great effort. He seems to walk entirely from the hips, back, and shoulders; the knees are kept quite stiff and rigid; the toes are dragged along the floor with a most unpleasant scrape. At the commencement of each step the toes are flexed, the foot is slightly inverted, and it is the outer aspect which scrapes the floor; the foot is then suddenly raised with a jerk high off the ground. When the foot comes to the ground the toes touch first, and the heel is

afterwards brought down with a "jolt," which, he says, is a very uncomfortable sensation. He thinks the difficulty in walking is due (1) to the toes and feet dragging against the ground, (2) to the stiffness of the knees, and (3) to weakness in the back.

He walks a great deal better in thick boots with high heels. He walks much worse when anyone is looking at him.

Condition of the Muscles.—The muscles of the lower extremities are somewhat flabby, but there is no appreciable wasting. There is, however, marked loss of power in certain muscles. When lying on his face he is unable to raise his legs from the bed. There is, too, some resistance to passive flexion of the knee; the hamstring tendons are rigid. He himself says he feels a tightness under the knees when the legs are flexed.

When lying on his back he can raise his legs from the bed, but only with difficulty. Flexion of the thigh on the abdomen can be naturally performed; but if he tries to extend the leg on the thigh there is a great deal of trembling in the limb, and the movement cannot be completed.

The *electrical contractility* of the muscles to both currents is below par, but there are no qualitative changes.

The legs frequently tremble and jump; there are, however, no true fibrillary twitchings. Sometimes, when he is lying in bed, both legs will be suddenly flexed on the abdomen. The trembling of the legs is not increased by exertion, but the slightest excitement brings it on at once. Twitchings of the facial muscles occur at the same time.

All the reflexes (skin, patellar tendon reflex, and the ankle clonus) are very much exaggerated.

There is no impairment of co-ordination. He stands unsteadily with his eyes shut, but this is simply from nervousness and the trembling which is thereby excited.

He feels his legs and back weak. He is always worse first thing in the morning. The *urine* contains phosphates, but is otherwise normal; it is still passed in a slow stream; sometimes it stops; sometimes he cannot hold it. The *bowels* are very costive.

Sensory Functions.—He occasionally feels darting pains in the legs below the knee. These pains are always worse when he is quiet; he never feels them when he is moving about. They appear to be myalgic. He feels his legs and feet numb.

Sensibility.—*Tactile* sensibility is somewhat impaired on the outer aspect of both legs below the knee; elsewhere it appears to be normal. Sensibility to temperature is natural, except in the outer aspect of the left leg. Sensibility to pain is everywhere normal.

The optic discs are natural, the pupils somewhat widely dilated.

His *mental* functions are normal.

The *special senses* are all normal.

The *heart* is irritable and excitable; he suffers occasionally from palpitation.

All the other organs are normal.

Treatment.—A great many drugs, antisyphilitic and others, together with electricity (constant current), were tried, but without any decided beneficial effect. The patient was discharged on October 10, much *in statu quo*.

Increased excitability of that portion of the grey matter of the cord with which the reflex fibres are connected will also cause exaggeration of the phenomenon. This is seen in some cases of myelitis; also after the administration of strychnine. I took the opportunity of proving this experimentally in the case of compression of the cord which I have already related (Case 9). To that patient I gave several full doses of the drug, with the result that this phenomenon was much intensified.

To sum up, then, the following conditions tend to increase the patellar tendon reflex:—

1. Increased excitability of the grey matter of that particular portion of the cord through which the reflex travels.
2. Lesions which destroy or arrest the function of those fibres which inhibit this particular reflex act. In these cases the segment of the cord through which the reflex travels must be sound.

(b) In June last the patient was admitted to the Edinburgh Royal Infirmary, where, through the kindness of Professor Sanders, I had an opportunity of seeing him. The patellar tendon reflex was greatly exaggerated.

THE return of the Society for Preventing Street Accidents in the Metropolis for the week ending the 29th ult. reports two persons killed and twenty-seven run over.

LUNAR CAUSTIC IN THE TREATMENT OF OPHTHALMIA.

By W. A. MACNAUGHTON, M.A., M.B.

THERE are certain inflammatory conditions of the eye which, owing perhaps to constitutional causes, are often very perplexing in their treatment. There is, for example, no complaint of its kind more obstinate than the scrofulous ophthalmia of children. In these, and in all cases where the simpler remedies have failed, I would recommend the application of the solid nitrate of silver to the supra-orbital surface as a speedy means of cure. Seeing that the remedy is applied in close proximity to the affected organs, it will be admitted that this is a more rational mode of relieving ocular inflammation than the distant counter-irritation behind the ears recommended in the more obstinate forms of this disease. As a matter of fact, I have observed excellent results in cases where the irritation and intolerance of light had persisted for months. The mode of application is simple. The caustic point is firmly applied over an inch or so of the previously moistened integument above the affected eye, but when both are concerned I cauterise a narrow strip across the whole supra-orbital region. This causes a slight smarting sensation at the time, which soon passes away. The stain which results can readily be removed afterwards with a strong solution of iodide of potassium. It is advisable, while this treatment is being progressed with, to exclude the light from the eyes by means of a shade.

11, King's-terrace, Southsea.

VASELINE IN GYNÆCOLOGICAL PRACTICE.—Dr. Sinéty in the *Progrès Méd.*, November 29, calls attention to the value of this substance, in place of fatty substances, glycerine, soap, etc., for facilitating the introduction of the finger, speculum, or other instruments, and as an excipient for medicinal substances when applied to the os uteri. In place of using simple vaseline he prefers combining it with carbolic acid (one part to fifty of vaseline No. 1) in order to obtain disinfective properties when applying it to the finger, instruments, etc. Medicinally, iodine, iodide of potassium, belladonna, etc., may be applied by its agency.

THAMES VALLEY DRAINAGE.—The question of the Thames Valley drainage bids fair to become a standing record of the eccentric manner in which parochial work is conducted in this country. Notice having been given by the Main Sewerage Board of their intention to proceed with Colonel Haywood's scheme for conveying the sewage of the district to Molesey, the Kingston Town Council has authorised the special Drainage Committee to take all the necessary steps, and to incur such expenses as may be needful to oppose the project at any public inquiry, or in any other way they may think advisable in the interest of the borough. Meanwhile, a deputation, consisting of the Mayor of Kingston, the Richmond Rural Sanitary Authorities, and others, has waited upon Mr. Slater-Booth at the Local Government Board, to ask his opinion as to the course they ought to pursue in face of the fact that the district auditor has refused the expenses incurred by the Lower Thames Valley Main Sewerage Board last year, in promoting a Bill before Parliament to enable them to acquire certain water rights in the rivers Mole and Ember; and that proceedings are at this moment being taken in the Master of the Rolls' Court to render gentlemen having no private interest whatever in the matter personally responsible for a sum of about £8000. The deputation further stated that they had attended to explain fully and fairly their views, and hoped to have the advantage of Mr. Slater-Booth's advice in the matter. The advice and opinion given by this gentleman must have conveyed but cold comfort to the deputation, since, whilst admitting that they had made a *bonâ fide* attempt to execute their duty, he gave it as his opinion that they should have proceeded under the provisions of the Public Health Act instead of going to Parliament. He was afraid the question of their being relieved from the surcharges made must abide the decision of the Court of Appeal. He was sincerely sorry for their position, both as regards the consequences of what had occurred and the task which undoubtedly still remained for them to execute. The report does not add, as usual, that the deputation thanked the President of the Local Government Board before it withdrew.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY. MIDDLESEX HOSPITAL.

A GROUP OF CASES OF HERNIA.

(Under the care of Mr. HULKE.)

Case 1.—Very Large Femoral Rupture—Sloughing of the Coverings caused by the Improper Wearing of a Truss—Strangulation—Herniotomy—Death.

THE following case forcibly illustrates the great injury which may be occasioned by the unintelligent wearing of a truss, since it cannot reasonably be doubted that the adhesion of the intestines to the sac, their matting together into an inseparably tangled mass, and the final sloughing of the coverings, were due to the violent pressure of the truss, which, failing to restrain the protrusion, was buckled more tightly.

A woman, aged fifty-seven, who, sixteen months before, had undergone an operation for a strangulated rupture in the right groin, was re-admitted into Bird ward on April 19, 1878, with an obstructed and strangulated rupture in the same groin. It occupied almost the whole length of the groin, forming a prominent swelling larger than two fists. No impulse was communicated to it from the belly when she coughed. On the most prominent part was a black slough of the size of a florin; and the skin beyond and around this for a considerable space was red, œdematous, and so glued to the deeper structures that it could not be pinched up in a fold. The rupture was very tender, and she complained of great pain in it, and of a dragging pain between it and the navel. Bowels obstructed. Pulse 116; temperature 99.6° Fahr.

No clear history was obtainable, but it seemed tolerably distinct that the symptoms now present had not set in suddenly, and that their increase had been gradual. The truss supplied after the former operation had not, she said, prevented the rupture from again protruding, and latterly she had worn the truss upon the top of the rupture, although this had greatly hurt her.

The condition of the rupture forbade recourse to the taxis; it was, therefore, at once operated on. All the tissues outside the sac were agglutinated together. The sac itself was tough, thick, and fibrous. On opening it a little flocculent turbid serum escaped. The neck with the crural ring was incised, and some coils of small intestine, congested, but not otherwise altered, were returned into the belly without difficulty. The bulk of the swelling was, however, not much lessened by this, and, as the crural ring was now dilated, it was evident that the obstacle was external to it. The coverings were divided freely, and the contents thoroughly exposed. These formed a large cylindroid mass, which, by its apparent calibre, smooth surface, and sulci imparting to it a sacculated figure, appeared to be cæcum and ascending colon. This impression of its nature was confirmed by a rounded band, of the calibre of a drawing-pencil, which resembled the vermiform appendix, and it was strengthened by the extensive and firm adhesions of the intestine to the sac. Its reduction being impracticable, and the impediment to the circulation having been removed by enlargement of the crural ring, the wound was closed. Throughout the operation, and afterwards, antiseptic precautions were observed. The symptoms continued unrelieved, and on the third day rapidly fatal collapse occurred.

At the necropsy the slough was found to have included all the coverings of the rupture reaching to the unreduced intestine, which was here overlaid by thick masses of inflammatory exudation which appeared to be infiltrated into an old adhesion that extended over a considerable space around. The intestine, in two masses, even when removed, very deceptively resembled cæcum with ascending colon. However, on cutting these across, it became apparent that they were formed by closely packed coils of small intestine greatly thickened, and inseparably matted together—so closely that the cut surface had an appearance not unlike that of a multilocular tumour. Throughout the belly were signs of peritonitis.

Case 2.—Strangulated Femoral Rupture—Herniotomy—Sac opened—Recovery.

A maid-servant, aged fifty, admitted March 11, 1878, who

had been long ruptured, but had only lately worn a truss, putting it on after she had risen from her bed, and not making certain that the swelling was entirely replaced, happening to sneeze violently, was seized directly with acute pain in her belly (which she compared to labour pains). The rupture (in her left groin) had swollen to the size of an egg, and was very tender, painful, and hard. She soon began to retch, and continued to do so when brought to the hospital seven hours later. The taxis failing, herniotomy was at once resorted to, and reduction being impracticable after the division of Gimbernat's ligament and of some deep constricting fibres, the sac was opened. Its contents were a small piece of omentum and a knuckle of gut. On dividing the neck of the sac these were easily replaced. She made an uninterrupted recovery, and was discharged April 3. The bowels acted first on the eighth day.

Case 3.—Strangulated Inguino-Scrotal Entero-Epiplocele, complicated with an Internal Constriction—Operation on the Fifth Day—Death two hours after.

A milk-carrier, aged sixteen, was admitted into one of the medical wards on October 4, 1878. His belly was tympanitic, hard, and very tender; and he frequently retched. Axillary temperature 99.2°; pulse 114. He said that he had been treated by a doctor for constipation, and that he had been well purged on October 1, since which he had not passed any stools. He was thought to be suffering from peritonitis or enteritis, and a suitable treatment was adopted.

At noon next day his condition was plainly worse. As he had not passed urine for several hours, a catheter was used, and sixteen ounces were drawn off. In doing this his scrotum was then first noticed to be very red and swollen. On questioning the lad he said that he had been long ruptured, that he had previously always been able himself to replace it, and that it had come down that morning, and he had not succeeded in replacing it.

His statements were confused and contradictory, so that little weight could be placed on them. Hernia was recognised, and he was now transferred to a surgical ward. The right side of the scrotum and inguinal canal were distended by a very tense hard swelling, the skin over which was purplish as if ecchymosed, and the cutaneous veins were gorged. He frequently threw up a sour bile-stained vomit. Pulse rapid, small, and very feeble. Tongue dry and furred. Belly very distended. His face had a pinched expression. The surface was cold. There was marked collapse. Herniotomy was instantly had recourse to. All the tissues outside the sac were filled with extravasated blood, and their veins were gorged. On opening the sac between two and three ounces of bloody serum escaped, and a large mass of intensely congested omentum, and behind this a knuckle of extremely congested and ecchymosed gut, were brought into view. The obstacle appeared to be at the internal abdominal ring, but after dilating this with the knife another impediment was found. An exceedingly tight fibrous band passed from the neck of the sac through the ring into the belly to an attachment beyond reach of the finger. It was drawn down, brought into view and divided, after which the gut was easily returned into the belly. The omentum was cut off. A drainage-tube was placed in the lower angle of the wound. Two hours afterwards the lad vomited, and a few minutes later died.

At the examination, forty-five hours after death, the body was already beginning to be decomposed; there was extensive livid mottling of the surface. About eight inches of ileum, reaching to within four inches of the cæcum, were found deeply injected; it was this part which had been strangulated and reduced. The intestines generally were very distended with gas, and their peritoneal coat was injected.

It was most unfortunate that the real nature of this case was in the first instance overlooked. No swelling in any of the usual places of hernia was noticed by the Resident Clinical Assistant till the midday following his admission into hospital, and no mention of his having had a rupture was made by the lad. It seems not improbable that the strangulation was primarily caused by the deep fibrous internal band, and that the descent of the omentum and gut into the scrotum occurred later during the violent retching caused by this. The superficial ecchymoses were doubtless caused by the ignorant and forcible efforts of the patient to push up the scrotal swelling. At the time of the operation his condition was already so desperate as almost to

preclude hope of his survival. Yet, looking to his youth and previous vigorous condition, it would not have been justifiable to have withheld a measure in which was his only prospect, however small, of life.

Case 4.—Large Strangulated Femoral Rupture—Twice previously Aspirated—Herniotomy—Uncontrollable Looseness—Death.

A cook, aged thirty-six, was admitted on June 11, 1878, into Queen's ward, with a large femoral rupture occupying nearly the whole length of the groin. It was quite irreducible. She vomited often, and the bowels had not acted for five days. The belly was swollen and hard; the tongue dry and brown; the cheeks were sunken, and her face bespoke great suffering. Axillary temperature 96.6°; pulse 108. She stated that for several years she had had a swelling in this groin, and that this had been twice tapped at a West-end hospital, yellowish water and blood having been drawn off. On the night of June 6 the swelling enlarged, she was seized with severe pain in the belly, and began soon after to vomit. The vomiting had continued, and the bowels had not acted since, notwithstanding several strong purges. Whatever had been its nature when previously tapped, the swelling was now obviously a strangulated rupture. Herniotomy was immediately performed. A large mass of omentum and small intestine was found. These were so extensively—it might be said universally—adherent to the sac and to each other, and so altered, that it was not practicable to disengage them so that the former might be cut off and the gut returned. The crural ring was sufficiently enlarged to take off hindrance to the circulation and what impediment it might have offered to the passage of the contents along the protruded gut. A drainage-tube was placed in the lower angle of the external wound, and this latter was very lightly dressed.

A cotton-wool poultice was put on the belly, and half a grain of extract of opium was ordered to be given as often as might be necessary to keep her easy. She continued to vomit till the middle of the next day, when all ingesta by mouth were discontinued, and an enema of three ounces of strong beef-tea with half a new-laid egg was ordered to be given every three or four hours. For a few hours she appeared to be rallying, but in the night of the 13th diarrhoea set in. Between 2 and 9 a.m. seven very loose stools were passed. This looseness was uncontrollable, and she sank at midday on the 15th—nine days after the beginning of strangulation, and four days after the operation.

In this case an interesting question arose respecting the nature of the operations to which she had been twice previously subjected, and whether the tapping might not have had an important rôle in the production of the adhesive inflammation which so inextricably glued the omentum and bowel together, and both to the sac. So far as could be learned from the patient's account, the tapping had been aspiration for strangulation; and, if so, the case shows that the immediate benefit was dearly bought, the ultimate effects being very disastrous. The case also illustrates the evils of the ignorant practice of taking purges in these obstructions, for to these may not unfairly be laid the diarrhoea under which she sank.

Case 5.—Strangulated Entero-Epiplocele (Femoral) in a Woman seventy-two years old—Herniotomy—Omentum cut off—Recovery.

A woman, aged seventy-two, but looking much older, was admitted on December 31, 1878, into Bird ward with a rupture in the right groin of the size of a large egg. It was perfectly irreducible, but not particularly tender nor painful. Her tongue was furred. Pulse 130, small and weak. The bowels had not acted for four days. She had vomited once soon after the occurrence of strangulation, but not since. The little urgency of the symptoms in the presence of such tight strangulation as was indicated by the absolute irreducibility of the rupture was attributed to the torpor of old age.

She was put under the influence of ether, and the rupture continuing irreducible, herniotomy was done. The rupture was femoral. It was overlaid by a cluster of enlarged lymph-glands. The sac, which was very thin, contained a few drachms of yellow serum, a mass of adherent knotty omentum, and behind this a knuckle of gut. This was easily reduced after the inner border of the crural opening had been incised. The omentum was cut off. She made a good recovery, and was discharged at the end of January.

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Medical Times and Gazette.

SATURDAY, DECEMBER 6, 1879.

THE ARMY MEDICAL WARRANT.

THE Royal Warrant for the Army Medical Department is at last before us, and we propose to give a general review of its contents. In the first place we must acknowledge that evidently an honest effort has been made by the War Office to redress the grievances of medical officers, and to offer terms worthy of acceptance by the most eligible students of the medical schools. The very points which are too faintly dwelt upon indicate clearly enough that the delay in bringing out the new Warrant has been caused by protracted discussion and extreme difference of opinion; and we instance particularly the absence of any rule for attaching officers for duty with regiments. This subject has been a stumbling-block, and the Warrant could not have appeared for months, probably, if the War Office had waited for an agreement between two sets of theorists. Still, the regimental system in some shape or degree must be reconciled with general service, and provision must be made to satisfy the claims of the medical officers with regard to regimental appointments. One of the first things to be noticed is, that the principle of nomination, suggested by the War Office Committee, is adopted only as a *pis aller* resort, as "not less than half the number of vacancies" in each half-year "shall be filled up by competition"; while it is provided only that it "shall be competent" for the Secretary of State to fill up the remaining number by nomination. The power to nominate will be handed over from time to time to schools of medicine, and colonial schools will be favoured as well as those of Great Britain. It is difficult to see why nomination should be provided for at all, unless we look upon it as a bribe to the heads of British and colonial schools to speak good things

to their pupils of the Army Medical Service; and as a proof that the Secretary of State is somewhat doubtful as to the successfulness of the Warrant. It concerns the public to know that, in future, medical officers who retire will remain available for service until the age of fifty-five. This will insure a reserve of medical officers in case of national emergency. Limited service is destroyed and treated as a failure! It seems to be recognised now that the Army Service should be a life-career, and not merely the temporary occupation of restless youth. The officers of the Army Medical Department will for a short time be a mixture of two classes; the first will consist of long-service men, and the second of the short-service officers, of whom no more will be admitted. We believe this is a step entirely in the right direction. It is accompanied, too, by inducements to keep up a high standard of professional knowledge, after an officer has made Army Service his lifelong work. Promotion after twelve years' service will only be given on the recommendation of the Director-General, and the appointment to brigade-surgeons will be offered as further rewards to meritorious officers. We pass on to matters which still more directly affect the medical officers, although they must also interest the public, tending as they do to improve and reorganise a valuable department. We shall say little about the rates of pay. Everyone can judge for himself whether he can get better paid employment in other directions; and no improvements as to pay alone would make the Service attractive to eligible candidates. But, with regard to other alterations, we must say a few words, and they must be words of commendation. We hail the increase of sick leave from six months to twelve as a satisfactory concession. There are other equally gratifying boons granted in the "instructions" which accompany the Warrant. We will notice three of them in particular. In future we find that medical officers "doing duty" with regiments, battalions, or corps will be permitted to draw staff allowances. Also we observe that medical officers will have the option of employing as servants privates of not less than two years' service in the Army Hospital Corps, or of drawing the money allowance in lieu. And thirdly, we are glad to see that forage is given to all Surgeons-Major for one horse at home or foreign stations, and for two in the field. We do not know whether the medical officer will be bound to possess the one or the two horses for which forage is granted, or whether he will receive the forage allowance as an emolument appertaining to his rank. We believe this has been a point of dispute, and may be one again, although no one could suppose that an officer commanding-in-chief ever possesses the number of chargers for which he draws the allowance. We think it is a matter for congratulation that the flow of promotion will be hastened by the compulsory retirement of Surgeons-General and Deputy Surgeons-General at the age of sixty, instead of, as before, at sixty-five; and it gratifies us to see that the War Office are ready to give compensation to old officers whose term of office will be shortened by the new regulation. India we find is still a stumbling-block. The very first paragraph of the "instructions" says, "The foregoing Warrant will not be applicable to army medical officers while in India or on the Indian establishment." We suppose the whole question of the Indian establishment will have to be taken in hand soon; and the sooner the better, for there has been plenty of heart-burning in the past, from the fact that advantages given to medical officers by Royal Warrants have been nullified in India by the simple process of not republishing them. The knowledge, however, that the present Warrant does not apply to India is so far satisfactory, that a medical officer may know what not to expect when he is sent there. Rank and rewards are dealt with by the Warrant. We observe that on leaving Netley the young surgeon ranks at once as a captain, and undoubtedly this is a great conces-

sion. Honours and rewards remain, as they must do, with the fountain of honour—the Sovereign. There is one point connected with pay which we must notice, and we do so with approval. We find that a medical officer, after completing ten years' service, *may be permitted to retire*, when it shall be deemed expedient by the Secretary of State, with a gratuity of £1250 in lieu of half-pay. After fifteen years of service he may receive £1800, and after eighteen years £2500. Now, this would be a great boon to a man who wished to begin private practice, although it would be coupled with the condition that he should rejoin the colours in any case of national emergency. Provision is also made whereby retired medical officers and militia officers may in future be employed in special cases; and the sum of £150 in excess of their usual half-pay or pay will be granted to them while so employed. Article 33, relating to exchanges, will not be considered as very satisfactory, as it only provides that an officer of the Department shall be permitted to exchange with another officer "under such conditions and regulations as shall from time to time be approved."

To conclude, we must repeat that the Warrant deserves praise, and we think the terms offered are, on the whole, well calculated to put an end to the dearth of candidates for commissions in the Medical Department of the British Army.

MEDICAL EDUCATION

BY THE METROPOLITAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THERE is nothing new under the sun; and surely by this time, to the minds of most men, the subject of medical education has become more or less irksome. The only thing really indicated seems to be, that in educating men for our profession we in England might do better. But there also is, without doubt, a strong disinclination on the part of many to take any other capital of learning as a guide and monitor—a guide to what is good, and a monitor as regards what is evil. Medical education has grown up in England by hap-hazard. There never has been a regular system; and, starting with such a weighty bundle of prejudices and personal notions, it seems destined long to remain in the same uncertain condition. The common complaint as regards the mode of instruction here pursued is, that it is not systematic enough; that it partakes too much of the rough and practical; and some would fain exactly reverse the process. To our thinking, the matter rests thus: the practical is too practical, and the theoretical is too theoretical; they are not sufficiently mixed. In other words, medicine is taught too much as a science or too much as an art. This is curiously illustrated by certain details of a report which has been put into our hands. This is the Report of a Committee appointed by the Metropolitan Branch of the British Medical Association, which undertook to obtain replies from medical gentlemen to a series of queries drawn up by the chairman of the Committee, Mr. Macnamara. These queries were to be addressed to "the teachers of medicine and surgery throughout England, and also to the members of the Metropolitan Branch of the British Medical Association." The queries, in accordance with this *mandamus*, were distributed most liberally, it must be said; and, as a result, "upwards of four hundred replies" were received. These are the replies, we take it, which have been analysed in this Report, which is further to be discussed on Saturday, the Report being the basis of discussion. From what we know of these things—knowledge acquired by a long course of arduous work attendant on listening at such like meetings, we are not inclined to augur brightly either of the success of the discussion or of the value of its results.

Meanwhile, we may be permitted to give an opinion on the various questions and on the sum of the answers given in the pamphlet before us. It becomes wearisome to handle the same topics over and over again; but long practice, long acquaintance with the subject—above all, daily dealing with it—encourage us to address once more our readers on a topic which, though important to all, especially the public, is to many a wearisomeness of the flesh.

It would be impossible to leave unacknowledged the boldness which would formulate all the difficulties connected with medical education in six questions. Nevertheless, as this has seemed possible to the Committee, we may well accept their interrogatories, and say what we have to say with regard to them, taking care to note, however, that these, to our thinking, touch only the surface of things.

The first question is as follows:—"Is it desirable that intending medical students should pass an examination in the elements of botany, physics, and inorganic chemistry, *prior to admission* to the regular medical curriculum, and that these subjects should form part of their 'preliminary general education and examination'?"—and to it 207 replies were returned from teachers, and 265 from general practitioners. Among these there was an overpowering consensus of opinion as to the advisability of removing the subjects referred to from the medical curriculum to the preliminary stage of medical education. One of the difficulties which seems to have troubled the Committee was the possibility of conceiving a proper examining body. This difficulty is, as it seems to us, entirely of their own making: it would be easy to include these subjects in the ordinary preliminary examination which all must pass. A far greater practical difficulty has always been the impossibility of obtaining due instruction in these departments apart from a medical school. Nowadays that is being rapidly overcome, inasmuch as in most good public schools there is now to be had good sound science teaching; and we have in the South Kensington arrangements the nucleus of what may yet come to be the great national school for natural science. Meantime medical schools are saddled with a kind of teaching which can only be conducted by them under difficulties, and where the teaching must be more or less imperfect. Mutual jealousy necessarily enforces this, and it can only be on some common and neutral ground that the kind of instruction wanted can be carried on with advantage.

The second question put is as follows:—"Is it desirable that a certain period, previous to admission to a medical school, should be spent with a general practitioner in the form of an 'articled pupilage'?" (a) If so, when, and how long? (b) And which of the subjects mentioned in question No. 1 should form a part of this preliminary training? or are there any others?" The third runs thus:—"Is it desirable that the age of eighteen years should be attained before a student enters the regular medical curriculum, and that the age of twenty-two years be completed before he is permitted to receive a qualification to practise?" These are, in many respects, but another way of putting the first question. For let us say it is granted that it is advisable to pass in botany, chemistry, and physics before entering on the study of medicine, strictly so called,—where is the student to obtain this knowledge? Can he obtain it in the dispensary of a country practitioner? Such is not our belief. Happily there are some among us of this class whose time and acquirements fit them for such a task. They do occur, but they are rare. And the very work which is insisted upon by a certain sect as so valuable is in itself an obstacle to the acquirement of the kind of knowledge indicated in question No. 1. Much as we value the instruction and practical education to be got in the surgery, it seems to us hopelessly putting the cart before the horse.

to introduce it into the earliest instead of the later periods of medical education. And a somewhat prolonged experience teaches us that of those who enter our schools from the surgery and those from the public school or college, the former may have, for a short period, the pull over their opponents, but the scientific training soon tells, and it is not long till the order is reversed. As to preventing a young man from entering on his studies before a given age, we would protest against it with all our might. It means, in many cases, the condemnation of a youth at the most susceptible period of his age to a year of idleness or, at best, desultory work. Let, as heretofore, the student enter whenever he is qualified to enter; only let us take care of the direction of his studies. As to the proposition to defer the period of qualification till the twenty-second year, that is equally unjust and impracticable. The real difficulty lies in having only a single grade of qualifications. Where there are both an M.B. and an M.D., this is readily got over; between the two a period of practical work must intervene, coupled, according to the University of London, with the study of logic.

The fourth question, as to the examination on elementary anatomy and physiology at the end of the first year of medical studies, is one of those traps apt to catch the unwary and inexperienced. For instance, we are almost certain that if each man who replied to the question had been invited to define what he meant by the terms "elementary anatomy" and "physiology," we should have had a divergence of views to which the confusion of tongues would have been a joke. But altogether, and apart from this, we hold it not to be a good thing to worry the student overmuch. Those who are best acquainted with modern teaching best know the tear and wear, the anxiety and mental distress, which the approach of examinations gives to the student. And too much of this is not good for anyone; the result is often most unfortunate. So we say, Let the student be examined by all means, but as part of his educational course, and not with a view to his ultimate qualification. For would any man say that if a student is rejected on his elementary anatomy he is to be thrust back a year? Is he to be allowed to proceed to his second examination? If so, what is the use of the first? By all means let it be insisted on, that a man must get over the strictly scientific portion of his studies by the end of his first year; but surely that is enough.

The fifth question is as to the devotion of two full years to the actual bedside study of disease. Of the value of this recommendation we cannot have the slightest doubt; but it can only be done by a remodelling of our present curriculum by making it consist of four actual years of study, and not of three and a sham.

Finally, as to the personal testimony of teachers to the attendance and diligence of the student at the bedside. This, *prima facie*, looks a perfectly simple affair, but we would ask how it is to be done in our largest schools. There it is quite impossible to have a personal knowledge of every pupil. Some teachers are popular and are followed by crowds; in other cases the wards are deserted. The only safe plan is the one adopted in certain schools—that, namely, of insisting on every man acting as clinical clerk and dresser for a definite period within the hospital, and that this alone will enable a student to be signed up for the full period of clinical study.

From what we have said it will be evident that we do not entertain high expectations of the good to be done by this Report or by the discussion thereof. There are signs of a slow upheaval in matters relating to medical education, but theorists and quacksalvers are too plentiful to let things take their natural course in peace.

THE WEEK.

TOPICS OF THE DAY.

WITH reference to a request submitted to the Metropolitan Board of Works by the Home Office, asking that Mr. Cross might be furnished with a special report on all the schemes now pending under the Artisans' Dwellings Act, Mr. Rogers, at the last week's meeting of the Board, called attention to the great practical difficulties which interfered with the carrying out of the Act. The enterprise, he remarked, was an admirable one from a philanthropic point of view, but it was a fair question to ask why the ordinary ratepayer was to be forced to provide buildings for the working-classes. After repeatedly advertising sites, they had failed to find building or other societies to take the land, except at a price which would have entailed great loss to the ratepayers, and as this was a philanthropic work it had yet to be decided whether the cost which it would entail should be a local or an imperial charge. The members of the Board had made great personal sacrifices in their endeavour to apply the Act to the best of their ability, and they would continue to do so, but it was clear that the question of meeting the enormous expenditure which the Act would entail must become a matter for discussion in another place. He proposed that a reply be forwarded to Mr. Cross, giving full particulars regarding the fourteen schemes of improvement which are at present being carried on by the Board under the Act. After a discussion, in which it was observed that the public did not fully realise the practical difficulties which were in the way of carrying out this Act, the motion of Mr. Rogers was agreed to.

Strong evidence of the necessity of the Adulteration of Food Act is to be found in the many and persistent efforts made to evade it. At Lambeth Police-court, last week, the Vestry Clerk of St. Giles's, Camberwell, appeared in support of several summonses taken out under the new Adulteration Act in reference to the supply of milk. The sanitary inspector having asked the servant of one of the defendants who was serving milk at houses for some of the fluid, was told there was none to spare, and that it was all required for customers. It was contended that, if such an excuse were allowed, the new Act would be entirely defeated, as the new provisions were framed at the instance of the Local Government Board to meet the defect in the former Act as to milk sold in the streets. Mr. Chance, the magistrate, thought it must be shown that a man had milk to sell, and those customers who had ordered certain quantities were not to go without their breakfasts because an inspector wanted a certain quantity for the purpose of analysis. He asked why the milk could not be obtained at the shops. The Vestry Clerk explained that the shops now supplied good milk, and milk-and-water was sent out to the customers, and if the excuse "none to spare" were allowed, the new statute would be entirely defeated. Mr. Chance admitted that it was a most important question, but he did not see how, when a certain quantity was ordered, a man was bound to supply an inspector. The case was worthy of consideration, and a special case for the superior Court might be granted.

We last week noticed that a deputation had waited upon the Home Secretary with reference to the method adopted in holding colliery inquests. Mr. Cross, having made the necessary inquiries, has now stated that it is clearly an error to suppose that the Secretary of State has issued any instructions to the effect that in future, in cases of disasters causing several deaths, the coroner and his jury shall have the view of one body only, and that the inquest shall be confined technically to one death. In the first place, the Home Office has no power to issue such an order, the matter being

entirely in the hands of the coroner, who is responsible for determining in what cases it is necessary that inquiries should be held; and secondly, the Secretary of State entirely agrees with the deputation that no such general rule would be practicable. In cases in which many deaths are traceable to one easily ascertainable cause no difficulty could arise; but, as the deputation remarked, there are many cases of explosions where some deaths may be caused by suffocation, some by falls, some by burning, some owing to some other cause, in which it may be absolutely necessary, for the purpose of justice, that several inquests should be held; and here, again, the judgment of the Coroner must be the guide.

The further arguments in the Hampstead Small-pox Hospital case were resumed and finally completed on Saturday last, the fifth day of the hearing, before the Court of Appeal. The pleadings of the Council for the Hospital were concluded; and Mr. Herschell, having commenced and finished his reply on the part of the plaintiffs, Lord Justice Bramwell said the Court would take time to consider their judgment.

Though a serious outbreak of measles has taken place in Leeds, the *Yorkshire Post* states that it is informed that it is not true, as has been reported, that any of the Leeds School Board schools are at present closed in consequence. One of them was closed for a few days for the purpose of disinfection, but has since been reopened. The outbreak has necessitated the closing of other schools for a few days for a similar purpose. The present epidemic is reported to be of a specially severe and dangerous character. The outbreak of scarlet fever in the borough is happily not so serious.

The St. John Ambulance Association is carrying on its work vigorously, so that, at its present rate of progression, it will not be long before the whole country will possess centres of instruction in the work of first aid to the injured. Last week a meeting was held at Ross, in Herefordshire, presided over by Captain Power, the lord of the manor. Committees of ladies and gentlemen were formed, and lectures for classes of both sexes were arranged. Dr. Norman has consented to give the first series of lectures. At Eton a large meeting was held on Saturday last in the new Drill Hall, the Rev. Charles Warre in the chair. The purpose of the work was explained by Major Duncan, R.A., and the first lecture of the course was given by Surgeon-Major Baker, of the Grenadier Guards. The audience was mainly composed of the members of the Eton Volunteer Corps. A centre of the Association has also been opened at Twickenham by Major Duncan, under the presidency of Sir George Bouchier, K.C.B.; while the Duke of Rutland has accepted the presidency of the centre now being formed at Leicester. New centres were opened during the past month at the following places:—Liverpool, Bristol, Keswick, Hereford, Mansfield, Eckington, Twickenham, and Colchester.

At the last meeting of the Metropolitan Asylums Board the report presented from the Stockwell Asylum showed that during the previous fortnight 90 fever patients had been admitted; that 58 had been discharged, and that 4 had died from typhoid and 14 from scarlet fever, leaving 303 under treatment. In the Homerton Asylum, during the same period 66 had been admitted, 4 had died, and 44 had been discharged, leaving 239 cases under treatment. During the fortnight, therefore, 156 patients had been admitted, as against 165 in the previous two weeks. Only 5 cases were of typhus, and the great majority were of scarlet fever; but in the East of London there were a greater number of enteric cases than in the South. In the Asylums of Fulham and Deptford, now exclusively devoted

to small-pox cases, 20 had been admitted during the period, 3 had died, 9 had been discharged, and 50 remained under treatment.

The duration of trials at law in the present day is beginning to occupy the attention of thinking men, and to this exceptional state of things the frequency of appeal from previous decisions must also be added. It would clearly be in the worst possible taste to insinuate that our judges are not competent to undertake the duties allotted to them, yet day by day verdicts are sought to be set aside on account of misdirection and wrong ruling. We are prompted to make these remarks by observing that, in the case of *Phillips v. London and South-Western Railway*, the amended verdict is again sought to be set aside on the ground that the damages awarded are excessive, and generally for "misdirection." The application was made in the Court of Common Pleas before Justices Grove and Lopes, and the former of these judges is reported to have remarked that "this was a question deserving of discussion: at present, if your coachman, without any fault of yours, runs over a millionaire, you are ruined." After some further argument, the time for moving was enlarged until the 6th inst.

Up to the present time the Dublin Hospital Sunday Fund is in excess of what it was at a corresponding period last year, and it is anticipated that when all the contributions are paid in the total will exceed that of any previous year. Such a result, if realised, will be highly gratifying as occurring in a year of almost unexampled depression.

ARMY MEDICAL DEPARTMENT.

SOMEWHAT more than eighty candidates for admission to the Army Medical Department have presented themselves. As to their nationalities, so far as these may be defined by places of birth, Irish and English (the former slightly preponderating) form the majority; next, those born in India or British colonies, these being chiefly the sons of officers on duty abroad; very few are of Scotch birth. Of the London schools, Bartholomew's, St. Thomas's, Guy's, University College, and St. George's furnish the greater number. Of the Irish, the majority are from the Queen's Colleges, Cork and Belfast; Trinity College, Dublin; and the Royal College of Surgeons School. The colonials were educated and qualified, as a rule, in Edinburgh or London. We understand that the candidates, professionally, socially, and physically, are remarkably good; several are the sons of officers in the combatant or medical branches of the army. Many have university degrees, and are men of high general culture, and not a few have already "smelt powder" in the Cape War. No information has yet been accorded as to the number of vacancies to be submitted for competition. The examination will begin at 10 a.m. on Monday next, the 8th inst., at the Law Institution, Chancery-lane (entrance Carey-street).

The inauguration of the new Warrant is to be signalled by some improvements in the uniform of the medical officers: the forage cap being relieved of the unsightly badge, and a gold and black band substituted, of black leather for Surgeons, and with gold embroidered edge for the higher ranks; the peak will be sloping. The collar of the patrol-jacket will be modified and made more dressy; and the black pouch and sword-belts will be discontinued. Brigade Surgeons will wear the braided frock-coat as at present worn by Deputy Surgeons-General.

POISONING BY CHLORATE OF POTASH.

It appears to be certain that this reputed "harmless" salt, if given in the very large doses which have been lately recommended, especially in diphtheria, may produce poisonous

and even fatal results. Dr. Jacobi, of New York (*New York Medical Record*, vol. xv., No. 11), has met with a large number of cases among children in his clinic in which the symptoms partly resembled those of acute nephritis; and Dr. F. Marchand has recently published four cases observed by himself (*Virchow's Archiv*, Bd. 77, Heft 3), three of them fatal, and has found that the post-mortem appearances and the microscopic alterations of the blood coincided with those observed in animals experimentally poisoned with chlorate of potash. The ages of Dr. Marchand's patients ranged from three to seven years. They were treated for mild pharyngeal diphtheria and stomatitis with doses of the salt amounting in one case to ten grammes in less than twenty-four hours, in another to twelve grammes in thirty-six hours, and in a third to twenty-five grammes in thirty hours. The symptoms were vomiting, hæmaturia, a more or less icteric tint of skin, rapid wasting of flesh and strength, delirium, and coma. The urine contained quantities of disintegrated blood corpuscles. The blood itself was of a remarkable chocolate colour, which did not alter on exposure to the air. The same colour can be produced artificially by adding chlorate of potash to blood and allowing it to stand for some hours. If the proportion of the salt be considerable, the blood assumes a syrupy or even a gelatinous consistence; and under the microscope the red corpuscles are found to have acquired a peculiar glutinous character, so that they tend to agglomerate into masses. The spectroscope further shows that the lines characteristic of hæmoglobin have been replaced by a distinct absorption-band in the red part of the spectrum, due to the conversion of the hæmoglobin into meth-hæmoglobin, an oxidation product of the former, discovered by Hoppe-Seyler. The poisonous effects of chlorate of potash are therefore, in all probability, the result of its oxidising action on the red corpuscles. The *débris* of the latter are either excreted by the kidneys (in which case they colour the urine brown), or they accumulate in the tubules of the renal cortex and cause death by suppressing the secretion of urine and producing a condition of "uræmia." The kidneys themselves are enlarged, and their surface is brown, but they exhibit no inflammatory appearances, the main alteration being the infarction of their tubules with corpuscular detritus. Dr. Marchand's paper is an important one, and it is clear from it that large doses of chlorate of potash are unsafe in childhood. Considering, however, what excellent results can be obtained, especially in stomatitis, by quite small doses of it, and how rarely any untoward result has occurred if the ordinary method of administration is adhered to, we cannot agree with the writer that the use of this drug ought to be discontinued in treating children. It would be absurd to put aside so valuable a remedy because it does harm when abused. The same argument would apply equally to nearly every medicine in the Pharmacopœia.

COLLEGIATE PRIZES.

CANDIDATES are reminded that essays for the Collegial Triennial Prize and the Jacksonian Prize, offered by the Council of the Royal College of Surgeons for competition amongst its members, must be sent in on or before Wednesday, the 31st inst. The subject for the first-named prize is "The Anatomy and Physiology of the Third, Fourth, and Sixth Nerves, as illustrated by observations and experiment in health, and by reference to the effects of injury and disease." The prize consists of the John Hunter Medal or fifty guineas. No award of this prize has been made since 1858. The Jacksonian Prize consists of the dividend (about £12), received from the Trust, and will be awarded to the author of the best essay on "The Disease of the Lymphatic System known as Hodgkin's Disease or Lymphadenoma."

DR. BLAXALL'S REPORT ON THE SANITARY CONDITION OF SOUTH STONEHAM, HANTS.

AN application having been made for a Government inquiry into the sanitary condition of the town of Freemantle, situate in the rural sanitary district of South Stoneham, Hants, on the ground that the water-supply was exposed to pollution, the town being unprovided with sewerage and cess-pit, and nuisances generally prevalent; and the Board's inspector having repeatedly called attention to the manner in which the Public Health Act was administered throughout this district, Dr. Blaxall was recently instructed to visit the locality and furnish a report upon its sanitary condition. The facts collected by Dr. Blaxall are, unhappily, of no novel character. The report, which is a very full one, only illustrates the deplorable indifference, or perhaps we should say ignorance, that prevails in most rural districts on the subject of disposal of sewage. The district visited is close to the borough of Southampton, and is bounded on one side by the estuary known as the Southampton Water. Throughout the towns and villages of the locality an entire absence of efficient sewerage had to be reported, though in a few cases efforts had been made by private individuals to construct short sewers to meet the wants of a few houses; and this had, almost necessarily, been done with imperfect knowledge of what was required for safety. In Freemantle, especially, the slop and waste water and the contents of the privies are discharged into what are called "dead-wells," which are simply underground cess-pits, through the pervious walls of which the liquid matters soak away and saturate the surrounding soil, until at length this becomes so water-logged as to be incapable of receiving more moisture. As a result the wells burst up, or, the liquid being forced back, overflows at the drain inlets. To remedy this evil, a new well is then sunk to receive the overflow of the old one, thereby increasing the soakage area; and hundreds of these "dead-wells" were observed at Freemantle. The report states also that they not infrequently exist under the public footpaths and roads, into which they occasionally burst. Up to the present time the water-supply of the district has been mainly derived from shallow wells sunk through the gravel to the clay at a depth varying from four or five to fifteen or twenty feet, uncemented for the express purpose of allowing water to drain freely in at the sides as well as to rise up into them from the bottom. These wells are frequently in close proximity to the "dead-wells" previously spoken of. Their reputation in Freemantle is of the worst, and the rector stated that he had been led to sign the petition praying for a Government inquiry from the fact that his parishioners, on his advocating temperance, urged that they were obliged to have recourse to beer, as the water was so bad that they were afraid to drink it. Dr. Blaxall ascertained that a supply of very fair water might be obtained for the district by extending the operations of the South Hants Water Company (established in 1876 for the supply of Romsey and the neighbourhood), which would enable the wells at present in use to be closed in the majority of instances. The report further notes that the mortality statistics of the district of which Freemantle forms the chief part compare very unfavourably with the remainder of this rural sanitary district; and Dr. Blaxall comments upon the inaction of the medical officers of health to the Sanitary Authority, and observes that clearly the Sanitary Authority have signally failed to employ the powers vested in them by the Legislature for the protection of the public health and for the improvement of their district. Dr. Blaxall, of course, strongly urges the vital importance of immediate and comprehensive measures being taken by the Authority to remedy the evils pointed out in his report.

THE ROYAL COLLEGE OF SURGEONS.

WE believe that at the ordinary meeting of the Council of the Royal College of Surgeons of England, to be held on Thursday next, the 11th inst., reports will be received from the Court of Examiners on the candidates found qualified at the late examination for the Fellowship; and from the Committee for Examinations in Anatomy and Physiology. The latter report will probably, we expect, recommend that the former members of the Board of Examiners be re-elected, and that Messrs. A. E. Durham, C. Heath, T. P. Pick, W. Rivington, and J. Wood be appointed Examiners in Anatomy; and Messrs. W. M. Baker, J. W. Hulke, and H. Power, Examiners in Physiology. One more Examiner in Physiology must be appointed, and from what we have heard we gather that most likely Mr. T. B. Lowne (the Arris and Gale Lecturer on Anatomy and Physiology at the College) will be the one selected from among the gentlemen nominated for that vacancy. Mr. Gay's motion for altering the by-law regulating the appointment of members of the Board of Examiners so as to admit of the appointment of Members as well as of Fellows of the College will also be considered. We regret to hear that the Council will receive a letter from Mr. Curling resigning his office as a member of the Court of Examiners.

THE PHYSIOLOGICAL ACTION AND THERAPEUTIC VALUE OF SCLEROTIC ACID.

SCLEROTIC ACID is probably the active principle of ergot of rye. It was discovered in 1877 by Dragendorff of Dorpat, and is an amorphous, cinnamon-brown substance, of the empirical formula $C_{12}H_{19}NO_9$, hygroscopic, and readily soluble in water. Good ergot contains about 4 or 5 per cent. of it in combination with bases. It is a very feeble acid, and in the presence of calcic carbonate only causes an evolution of carbonic acid when warmed. With sodium, however, it forms a stable sclerotinate. With phosphomolybdate of ammonia its aqueous solution gives a dark green, with tannin a reddish, precipitate. So much for its chemistry. Its physiological properties have lately undergone very careful investigation by Nikitin in Professor Rosbach's laboratory at Würzburg (*Würzburger Phys. Med. Verhand.*, xiii.; *Centralblatt Med. Wiss.*, No. 42, 1879). He finds that it is so rapidly excreted by the kidneys in warm-blooded animals that not a trace can be detected in from forty to forty-eight hours after its administration. Very large doses cause death by general paralysis; and in warm-blooded animals their immediate effect is a depression of temperature of from 1° to 3° Cent., which continues until death. Professor Binz (*Grundzüge der Arzneimittellehre-Sechste Auflage*, S. 53), states that 0.01 gramme sclerotic acid gradually brought on general paralysis in a middle-sized specimen of *Rana esculenta*, but that the next day the creature was again well and lively. Nikitin sums up the action of sclerotic acid and its sodium salt as follows:—They both possess the physiological and therapeutic properties of ergot itself, but the sclerotinate is a weaker drug than the acid. Both chiefly act on the central nervous system. Frogs are very sensitive to the acid; among mammals, carnivora are more effected by it than herbivora. In frogs the reflex irritability of the spinal cord is completely abolished; in warm-blooded animals it is never quite lost even just before death. The acid only paralyses the sensory nerves if brought into direct contact with their peripheral ends; the motor nerves as well as the striped muscles are unaffected by it. In mammals the heart is not influenced even by relatively large doses. The blood-pressure is only permanently reduced by large doses. At death the respiration ceases before the heart. In mammals the acid accelerates the intestinal peristalsis;

and it excites contraction both of the pregnant and non-pregnant uterus, pre-existing contractions being intensified so that the organ assumes a paler tint. Nikitin has not observed any poisonous effect on the fœtus *in utero* either from the acid or the sodium sclerotinate. From his experiments on animals, he calculates that an adult man weighing fifty kilogrammes would be killed by about ten grammes sclerotic acid. In any case it is a much less powerful poison than most of our officinal alkaloids. The ordinary dose which has been hitherto given by subcutaneous injection is, however, only 0.02 to 0.03 gramme two or three times daily. Sclerotic acid seems likely before long to partially replace ergot as a drug. It has the advantage of remaining indefinitely without loss of strength, if only kept in a dry place and undissolved. Its sodium salt Nikitin considers the best preparation for internal use in the human subject. Subcutaneous injection of either drug causes a "sharp biting" pain, which passes off in a few minutes. Von Ziemssen claims for sclerotic acid over ergotin that the former causes no inflammation at the seat of puncture.

HONOURS TO MEDICAL OFFICERS OF THE ARMY AND NAVY.

WE last week published the names of those officers of the Army Medical Department who have received the Order of the Bath for the recent campaign in Afghanistan. We have now to record that the *London Gazette* of Friday, November 28, contains a list of those officers who have been appointed Companions of this Most Honourable Order for service during the Zulu War, and amongst them we are glad to find the names of Deputy Surgeon-General James Lewis Holloway, Fleet-Surgeon Henry Frederick Norbury, Surgeon-Major Caleb Sherar Wills, and Surgeon-Major Charles McDonough Cuffe. But what of Surgeon-General Woolfryes, the Principal Medical Officer of the troops in the field? The omission of his name can scarcely be an oversight, and we must suppose he is reserved for some higher distinction, as he is already a Companion of the Bath. The same *Gazette* announces that Lieutenants of Orderlies Henry James Sylvester and Lawrence Gorman, of the Army Hospital Corps, are to have the honorary rank of Captain for the South African campaign.

UNIVERSITY OF ST. ANDREWS.

DR. RICHARDSON's term of office as Assessor of General Council in the University Court having expired, he has, at the urgent request of the London Committee, consented to stand again, and has been nominated for re-election by Professor Pettigrew and Mr. Robb. Meanwhile a small section in the University—disappointed, as it is rumoured, in the nomination of another candidate—have put up Dr. W. B. Carpenter (who is not in any way connected with the University), and, as it is said, actually in opposition to the words of a telegram received from Dr. Carpenter during the meeting. It is said that the object is to divide and lessen the medical interest—a proceeding in which Dr. Carpenter, we should think, is the last man to take a part.

BENZOATE OF SODIUM INHALATIONS.

SINCE our article, "The Story of a New Remedy," in a recent issue, was written, Dr. Schüller has published in the *Berliner Klin. Wochenschrift* (No. 45) a short statement of his views as to the daily dose of benzoate of sodium necessary to be inhaled in phthisis for benefit to be expected from it, and as to the best method of managing the inhalation. His experiments on animals led him to the conclusion that for every kilogramme of body-weight 0.5 to 1 gramme benzoate is required. Hence a man of 60 kilos. weight must inhale daily from 30 to 60 grammes

(1 to 2 oz.) of it in a 5 per cent. aqueous solution. A Siegle's steam spray is the best, and the patient can have from two to four sittings of half an hour each daily, according to his strength. The spray solution should be made only with distilled water. The patient is to take only moderately deep breaths at first, very gradually increasing his inspiratory force. General treatment is not to be neglected. The body-weight should be tried every five to ten days as a guide to progress. Dr. Schüller ends by warning against over-strained confidence in this treatment. "In the human subject," he says, "the state of things is seldom so simple as in the animals we experiment on. As a rule, in man, tuberculosis comes under treatment in association with diseased processes which interfere with the action of the remedy. On the other hand, for this reason, as well as from the results of my researches, we can only expect a certain and permanent cure provided the inhalation treatment can be steadily carried out, even in some cases for months." Dr. Schüller evidently, we should add, has no sympathy with the Innsbruck *fiasco*, and insists that this treatment "must undergo a very searching, lengthened, and often repeated testing" before a definite judgment can be passed on it. We are inclined to think that the quantity of benzoate required for daily use will seriously prejudice the method. A few weeks back the price in London was about 1s. 6d. an ounce, and the treatment would become rather expensive if two ounces had to be inhaled every day for months. This part of the matter has its ridiculous side. We know of two medical men lately, who, hearing of the benzoate inhalations, proceeded to furnish themselves, one with one ounce, and the other with an ounce and a half of the drug! They have since learnt that they must order it by the pound.

THE HOME HOSPITALS ASSOCIATION AND THEIR DIFFICULTIES.

THE case of the Home Hospitals Association, in respect to their claim to be allowed to convert Berkeley House, situated at the corner of Lower Berkeley-street and Manchester-square, into a hospital for paying patients, was heard before the Master of the Rolls on Monday last. The action was brought by Lord Portman, the lessee of the house, who claimed that the conversion of it into a hospital would be a breach of the covenants contained in the lease. The Master of the Rolls explained at some length the reasons which induced him to arrive at a decision, and whilst regretting the result he was obliged to arrive at (since he saw that this would probably have been a most beneficial institution), decided that he must grant an injunction to restrain the use of the house by the defendants as a hospital,—with costs. Mr. Southgate, who appeared for the Association, stated that the defendants were afraid that the result of his Lordship's decision would be that they would be unable to find any house suitable for their purpose in a sufficiently accessible part of London. Most of the houses were held on lease, and there was in all cases the difficulty of the restrictive covenants, but after his Lordship's decision perhaps owners might be disposed to afford his clients facilities in the way of purchase, to enable them to carry out the purposes of the institution.

ASPHYXIA CAUSED BY THE ASCARIS LUMBRICOIDES.

Dr. C. Fürst, one of Professor Billroth's assistants at Vienna, reports (*Wiener Med. Wochenschrift*, 1879, Nos. 3 to 6) the case of a little girl of four, who was suddenly seized while in hospital with symptoms of asphyxia, the cause of which could not be discovered during life. In spite of tracheotomy and artificial respiration, she quickly died. Two hours later a living female ascaris was found hanging out of her nostrils. Dr. Fürst had noticed, after performing tracheotomy, that a male catheter, which he used in his haste instead

of a canula, met with resistance when first introduced; and that after he had withdrawn it and made a second attempt, it passed easily to the bifurcation of the trachea. Probably therefore, the ascaris had retired towards the upper part of the larynx between the two attempts to make the catheter enter the trachea, and still later it had wandered into the posterior nares. The autopsy revealed no other possible cause of death. A male ascaris was found in the jejunum. Dr. Fürst has collected eight other cases of the same kind, besides sixteen previously collected by Davaine, and has appended an analysis of their clinical history to his paper, of which the following is a *résumé*:—The predisposing causes of entrance of the ascarides into the larynx are chiefly vomiting, fever (their activity, according to Küchenmeister, being much intensified by a high temperature), purgatives, and long fasting. Children are much more liable to this accident than adults. The symptoms are most often those of acute dyspnoea and aphonia, ending in asphyxia and early death. Sometimes the worm passes the larynx completely, and remains in the trachea or bronchi. Here death does not ensue for several days, but the patient remains aphonic, and indicates the front of the neck as the affected part. Ultimately, bronchitis ends the scene. The diagnosis is difficult. We must exclude laryngitis, croup, diphtheria, spasm and oedema of the glottis, and diseases of the lungs. We must make sure that a cold abscess has not burst into the larynx, and that asphyxia is only due to a foreign body lodged in the larynx or pharynx. The only clue to the presence of an ascaris—all other foreign bodies being excluded—is the knowledge that the patient has previously suffered from these worms. If the asphyxia passes off, and the patient complains of pain in the trachea, the probabilities in favour of ascaris lumbricoides are increased. As to treatment, if the worm cannot be felt or seen from the mouth, emetics and expectorants may be tried. Tracheotomy has failed to save the children's lives in the three cases in which it has as yet been tried. Post-mortem examination generally reveals the offending worm in the place to which the symptoms pointed. It excites inflammation as a simple foreign body, as well as by its movements and by a peculiar corrosive action which it exerts. If it lodges in a bronchus it may cause pneumonia in the neighbouring lung tissue. In the larynx the arytenoid cartilages suffer most, being in the direct line of passage of the worm from the oesophagus. The appearances proper to death by suffocation, and the presence of other ascarides in the intestines, will further be detected.

THE BROWN INSTITUTION LECTURES.

THE lectures in connexion with the Brown Institution will be delivered by Dr. Greenfield, at the University of London, on December 17, 18, 19, 22, and 23, at 5.30 p.m. The subject of the course will be, "Recent Investigations on the Pathology of Infective and Contagious Diseases."

PATHOLOGICAL SOCIETY OF DUBLIN.

THE first meeting of this Society for the session 1879-80 took place in the Anatomical Theatre of the School of Physic, Trinity College, on Saturday afternoon, November 29. Dr. William Moore, the outgoing President, took the chair. A large number of students attended the meeting. Dr. J. K. Barton exhibited an interesting specimen of osteitis affecting the cancellous tissue in the head and neck of the femur in a boy aged eight, who had shown symptoms of morbus coxae. The overlying cartilage was externally sound and not ulcerated. The parts were removed by excision, and the patient was doing well. Dr. W. Thornley Stoker showed a remarkable specimen of extensive lacerations of the right kidney and liver from a man aged twenty-eight, who had

been crushed between the buffers of two railway waggons. There was very little trace of peritonitis. Death took place as the result of a secondary hæmorrhage into the peritoneum. Dr. J. M. Finny presented a specimen of aneurism of the arch of the aorta in a labourer aged thirty-six. There was great hypertrophy of the left ventricle, and a scabrous condition of the aorta. The physical signs of aortic incompetency had been present during life, but the regurgitation into the left ventricle appeared to be due more to the proximity of the aneurism than to any actual disease of the aortic valves. Dr. C. J. Nixon exhibited a specimen of extreme, apparently congenital, cirrhosis of the liver in a temperate man aged twenty-one years. A cluster of greatly enlarged veins near the umbilicus (*caput Medusæ*) had given rise to bleeding during life. These veins communicated with a large vessel which ran along the ligamentum teres to join the vena portæ. It was no doubt the umbilical vein, and the case illustrated the circulation described by Sappey. The following officers for the ensuing session were subsequently elected:—*President*: Edward H. Bennett, M.D. *Vice-Presidents*: John Thomas Banks, M.D.; Samuel Gordon, M.D.; Thomas Hayden, F.R.C.S.P.; Henry H. Head, M.D.; George H. Kidd, M.D.; T. Jolliffe Tufnell, F.R.C.S.I. *Council*: John Kellock Barton, M.D.; Anthony H. Corley, M.D.; George F. Duffey, M.D.; Arthur W. Foot, M.D.; Reuben J. Harvey, M.D.; Edward Hamilton, M.D.; James Little, M.D.; Thomas Evelyn Little, M.D.; Robert McDonnell, M.D.; William Moore, M.D.; John M. Parser, M.D.; William Stokes, M.D. *Secretary and Treasurer*: John William Moore, M.D. *Secretary for Foreign Correspondence*: Robert D. Lyons, M.B. *Committee of Reference for Specimens*: Arthur Wynne Foot; Reuben J. Harvey; Thomas Evelyn Little; with the President and Secretary.

WICKERSHEIMER'S PRESERVATIVE FLUID.

THE *Berliner Klin. Wochenschrift*, No. 44, 1879, publishes an official memorandum by the German Minister of Education, etc., with reference to a new preparation for preserving dead bodies, animals, or plants, which has been invented by Herr Wickersheimer, of the University Museum at Berlin. The formula had been patented, but by arrangement with the Government the patent has been annulled within the limits of the German Empire. We do not know whether it is in force in this country. The composition of the fluid is as follows:—Alum 100 grammes, common salt 25 gr., saltpetre 12 gr., potash 60 gr., and arsenious acid 10 gr., are to be dissolved in 3000 gr. boiling water. On cooling, the liquid is to be filtered. To every two and a half litres, supposing a large quantity to be prepared at once, a litre of glycerine and 250 ccm. of methylic alcohol are to be added. Herr Wickersheimer states that the bodies of animals or men preserved with this fluid retain their form, colour, and pliability completely. After several years the muscles look as fresh on section as if they belonged to a recent corpse. For embalming purposes the body is first injected with the fluid, in the proportion of one litre and a half for a child of two years, and of five litres for an adult. It then is immersed in a bath of the fluid for several days, after which it is rubbed dry, swathed in bandages wetted with the fluid, and preserved in an airtight case. For bodies which are to be dissected the injection alone suffices. Small vertebrates and invertebrates can be kept simply immersed in the fluid, or if wanted in the dry state may be in it six to twelve days, and then be taken out and dried in the open air. Hollow organs, such as the lungs and intestinal tract, are best injected with it before immersion. The process seems to have the recommendation of simplicity and cheapness, as well as that of its preserving the natural colour and the pliability of the objects treated

by it. It is certain that its merits must have been well tested before receiving the *imprimatur* of the German Government.

THE NEW ARMY WARRANT—AT LAST!

WE congratulate our brethren in the Army Medical Service on the favourable termination of the prolonged incubation of the new Warrant for the Army Medical Department. The Royal Sign Manual was attached to it on November 27, and a special Army Circular, containing the full particulars, was published on December 2. November 29 having been the last day for the reception of names of candidates intending to compete for Army Medical appointments, those who had determined to come forward on the limited information accorded to them in the Schedules lately circulated so extensively, at least deserve full credit for the possession of that virtue which is represented as the substance of things hoped for; and, on the whole, we think that they will not be disappointed. If the extent to which any public measure is likely to dissatisfy the aspirations of those who contemplate it from opposite points of view, be any criterion as to the course adopted being exactly in the judicious mean, it may be fairly said, as regards extreme regimentalists and extreme unificationists, that the lately born Army Medical Warrant, in so far as it will satisfy neither party, may be accepted as the best that could be produced under the circumstances. In this, as in most other practical affairs of life, expediency rather than idealism must carry the day. The ideal of regimentalism is the fixed position of the medical officer in the social, or rather home circle of the regimental mess; and it must be admitted that this presents many attractions, particularly to the young. The ideal of unification is the strictly professional and independent standing which its advocates consider to be the inalienable right of the members of a liberal and learned profession. The former, in these days of army corps organised in outline on a system calculated to secure economy of *matériel*, as well as efficiency of *personnel*, would involve such an expenditure for the necessary number of medical officers, and amount of regimental equipment of stores, medicines, instruments, and means of carriage, as would render it inadmissible on financial grounds alone, setting aside the strategic difficulties inseparable from the maintenance of such long trains of "*impedimenta*" cumbering the movements of an army in the field. The latter, in so far as it would reinstate medical officers in the actual privileges and precedence of military rank accorded to them by the terms of Sidney Herbert's Warrant of 1858, but gradually and insidiously withdrawn by means of Horse Guards' Circulars and General Orders, in deference to the jealousies and ill-feeling which they excited among the more hot-headed members of each of the classes concerned, may be pronounced to be too high for attainment and practical working by poor human nature; and relegated to a niche among the fanciful visions of Utopia. The recent Warrant, as the natural resultant of these two opposite forces, fairly draws the diagonal line between them. It is neither completely regimental nor completely unificational, but contains something of each. It is highly improbable that for many years to come any further attempt will be made to solve the difficult problem of satisfying the just claims of medical officers without raising jealous demands on the part of the combatant officers and of those of the other departmental branches.

We proceed now to analyse as briefly as possible the provisions embodied in the several paragraphs of the Warrant before us. As regards full and retired pay, having already, in our notice of the Schedule to candidates, expressed our satisfaction with the terms offered as being not only fair but liberal, we shall only cursorily revert to that part of the subject.

The division of officers of the Army Medical Department into the Classes A and B—the former to consist of those who entered before April 28, 1876, those entering after the date of the recent Warrant, and those of Class B who may

be permitted to exchange into Class A; the latter of those who entered on or after April 28, 1876, and before the date of the recent Warrant, and who have not been transferred to Class A—is a temporary expedient necessary for the avoidance and removal of the difficulties caused by the ill-advised and short-sighted scheme of appointing medical officers on a short-service system, with gratuity on discharge to those not elected for retention and advancement in the Department. The terms of transfer, as stated in Paragraph 2, are—application recommended by the Director-General, and the concurrence of the Commander-in-Chief; and these, of course, will be only matters of form in the cases of medical officers whose conduct and professional abilities have been satisfactory. Medical officers so transferred will not suffer any pecuniary loss, it being provided that the pay of such officers shall not be reduced, while they continue to serve below the rate they were receiving in Class B—viz., £250 per annum, with allowances—at the time of transfer to Class A, the pay of the latter being for the first five years £200 per annum, with allowances. From the scale of rates of pay in Article 3, it, however, appears that should any officers continue to serve in Class B without having been transferred to Class A within the next two years, under Article 2, they will be paid at rates considerably lower than those given to officers of Class A; likewise, according to Article 47, their non-effective pay will be at much lower rates. So that it seems to be the intention to secure the total extinction of Class B by the combined results of voluntary transfer within two years to Class A, and by the retirement of the residue with the £1000 gratuity to each on the expiration of their ten-years period of service. The rates of pay of the medical officers in the various ranks employed at headquarters are laid down in the Warrant as £1300 yearly to a Surgeon-General, £900 to a Deputy Surgeon-General, £750 to a Brigade Surgeon, and £650 to a Surgeon-Major. These rates are very considerably in advance of those previously in force, but it may be noted that, being what is known as “consolidated pay,” instead of being made up of pay proper and allowances, the whole sum is liable to income-tax. Although not stated in the Warrant, it may be useful to our younger members to be informed that the “allowances” to medical officers in the rank of Surgeon are about £91 per annum, with the additional advantages of this sum being free of income-tax.

In this notice we must confine ourselves to observing, with satisfaction that in the scale of relative rank the invidious minority of Surgeons-Major over twenty years’ service to Lieutenant-Colonels is no longer in force; that the rule of temporary half-pay after six months on medical certificate has been modified to the extent of twelve months’ leave on full pay being accorded when necessary for the restoration of health; and that as regards forage allowance, medical officers of field rank are reinstated to the position which they held prior to the publication of Clause 58 of Army Circular of 1878, Paragraph 3 of which, so far as it related to officers of the Army Medical Department, is cancelled in the new Warrant.

THE PRESENT DRIFT OF MEDICAL SCIENCE.—It might be well for the medical philosopher to take some careful and exact observations of the status of medical science at the present day, and to note the direction and tendencies of present studies; to take soundings, and calculate the latitude and departure, and the course and distance, as it were. At no moment in the world’s history was so much mental power directed in the channel of medical study; never were there so many giant intellects labouring to advance the various departments of medical science. But the question arises, Of what practical value are all these studies and investigations with relation to therapeutics, the great end and aim of medicine? Are microscopic researches made available, or is there any attempt to apply them? Does not the physiology of the day mainly deal with abstractions? Is diagnosis cultivated as a means or as an end? *Is it not a growing tendency of medical education to crowd the mind with theoretical knowledge, and make scholars rather than practitioners?* Is the healing art on the advance? Is there not an increasing want of faith in medicines, in therapeutic agencies? Are not visionaries and sceptics in our profession on the increase everywhere?—*Pacific Med. and Surg. Journal.*

THE ROYAL WARRANT AS REGARDS THE ARMY MEDICAL DEPARTMENT.

The following is the text of the just issued Warrant elsewhere commented on:—

Whereas we deem it expedient to amend the regulations which govern the appointment, promotion, and retirement of the Medical Officers of our Regular Forces:

Our will and pleasure is that Articles 384 to 397, 401 to 432, and Articles 1195 to 1203 of our Warrant of May 1, 1878, be cancelled, and that this our Warrant shall henceforth be the sole and standing authority on the matters herein treated of.

1. The Officers of the Army Medical Department shall be divided into two classes—viz., Class A and Class B.

Class A shall consist of those who entered the Army Medical Department before April 28, 1876; those who shall enter the Army Medical Department after the date of this our Warrant; and those of Class B who may be permitted under Article 2 to exchange their terms of service for those of Class A.

Class B shall consist of those who entered the Army Medical Department on or after April 28, 1876, and before the date of this our Warrant, and who are not transferred to Class A under Article 2.

2. Within two years from the date of this our Warrant, a Medical Officer serving in Class B may, upon his application being recommended by the Director-General of the Army Medical Department, and with the concurrence of our Commander-in-Chief, be transferred to Class A by our Secretary of State. The pay of such Officer shall not be reduced, while he continues to serve, below the rate he was receiving in Class B at the time of transfer to Class A.

RANK AND PAY.

3. The ranks and rates of pay of the Officers of the Army Medical Department shall be as follows:—

		Class A. £ s. d.	Class B. £ s. d.
Surgeon-General	daily	2 15 0	2 0 0
After 25 years’ service	“	—	2 5 0
“ 30 years’ service	“	—	2 7 0
“ 35 years’ service	“	—	2 10 0
At Head-quarters	yearly	1,300 0 0	1,200 0 0
Deputy Surgeon-General	daily	2 0 0	1 10 0
After 25 years’ service	“	—	1 12 0
“ 30 years’ service	“	—	1 15 0
“ 35 years’ service	“	—	1 17 0
At Head-quarters	yearly	900 0 0	850 0 0
Brigade Surgeon	daily	1 10 0	—
After 5 years in the rank	“	1 13 0	—
At Head-quarters	yearly	750 0 0	—
Surgeon-Major	daily	1 0 0	1 0 0
After 15 years’ service	“	1 2 6	—
“ 5 years’ service as such	“	—	1 5 0
“ 20 years’ service	“	1 5 0	—
“ 25 years’ service	“	1 7 6	—
At Head-quarters	yearly	650 0 0	600 0 0
Surgeon	“	200 0 0	250 0 0
After 5 years’ service	“	250 0 0	—
“ 10 years’ service	daily	0 15 0	0 17 6
Surgeon on probation	“	0 8 0	—

Charge Pay (Classes A and B).—The Principal Medical Officer of an Army in the field consisting of 10,000 men and upwards, £1 daily; of 5000 men and upwards, 15s. daily; of less than 5000, 10s. daily. The Principal Medical Officer of a Colony where the number of commissioned officers and enlisted men is 1500 and upwards, 5s. daily.

4. The relative rank of Officers of the Army Medical Department shall be as follows:—

As Major-General	{	Director-General.
“ Colonel	{	Surgeon-General.
“ Lieutenant-Colonel	{	Deputy Surgeon-General.
“ Major	{	Brigade Surgeon.
“ Captain	{	Surgeon-Major, after 20 years’ service.
“ Lieutenant	{	Surgeon-Major, of less than 20 years’ service.
		Surgeon.
		Surgeon on probation.

5. The pay of Medical Officers shall be issued monthly in arrear.

APPOINTMENT, PROMOTION, AND RETIREMENT.

First Appointments.

6. Every candidate for appointment in the Army Medical Department shall possess two diplomas or licences, recognised by the General Medical Council, one to practise medicine and the other surgery, and shall be registered under the Medical Act in force in the United Kingdom at the time of his appointment.

7. A candidate shall not exceed the age of twenty-eight years on appointment as a Surgeon on probation.

8. A public and open competition shall be held twice in the year for the admission of qualified candidates as probationers. The number of appointments so competed for shall be not less than half of the number of vacancies which shall have arisen in the last completed half-year ending on June 30 or December 31.

9. Not less than half the number of vacancies shall be filled up by competition, and it shall be competent for our Secretary of State to fill up the remaining number from such qualified candidates as may be proposed by the governing bodies of public schools of medicine in our United Kingdom or in our Colonies, as he may think proper. Every candidate so proposed shall be certified by the governing body proposing him to be duly qualified according to a standard to be laid down by our Secretary of State, and shall be approved by the Director-General.

10. Our Secretary of State shall from time to time fix the order of precedence and the proportion in which the several schools of medicine shall be offered the nomination of candidates.

11. A Surgeon on probation shall on appointment be sent to some large station for instruction in Ambulance and Hospital Corps duties, until the commencement of the next course of study at the Army Medical School. After passing through such course at the Army Medical School as our Secretary of State shall decide, the Surgeon on probation, after passing a qualifying examination in the military medical subjects taught there, and satisfying the Director-General that he is a person of proper skill, knowledge, and character for permanent appointment in the Army Medical Department, shall be commissioned as Surgeon.

12. The Surgeons on probation who pass out of the Army Medical School at one qualifying examination shall take precedence among each other as Surgeons, as follows:— (a) Those appointed on nomination according to their date of joining on probation; (b) Those appointed on competition according to the last day of the competitive examination, and in the order of merit at such examination, with priority over any joining under sub-section (a) on the last day of the competitive examination.

13. A Surgeon's commission shall bear the date of the day of his passing out of the Army Medical School.

14. A candidate for appointment as Surgeon in our Royal Malta Fencible Artillery shall be required to pass such a professional examination as our Secretary of State may from time to time determine.

PROMOTION. .

Surgeon-Major.

15. A Surgeon of Class A shall be promoted to the rank of Surgeon-Major on completing twelve years' full-pay service, of which at least three years shall have been abroad, if he be recommended by the Director-General.

16. Every year it shall be competent for our Commander-in-Chief, on the recommendation of the Director-General, to select, with the approval of our Secretary of State, a number of Surgeons of Class B, not exceeding six, who shall be retained in the service, and shall be promoted, after twelve years' service on full pay, to the rank of Surgeon-Major.

17. In a case of distinguished service, a Surgeon, if qualified, may be promoted to the rank of Surgeon-Major without reference to seniority; and in such a case the recommendation detailing the services for which the officer is proposed for promotion shall be published in the *Gazette* in which such promotion shall appear.

Brigade Surgeon.

18. A Brigade Surgeon shall be selected, on the recommendation of our Commander-in-Chief, for ability and merit, from Surgeons-Major who shall have served abroad for at least eight years as Surgeon-Major and Surgeon.

Deputy Surgeon-General and Surgeon-General.

19. All promotions from the rank of Brigade Surgeon to that of Deputy Surgeon-General, and from the rank of Deputy Surgeon-General to that of Surgeon-General, shall be given for ability and merit upon the selection of our Commander-in-Chief, with the approval of our Secretary of State; and the grounds of such selection shall be stated to us in writing. In all such cases the amount of foreign service shall be expressly stated.

20. On appointment as Honorary Physician or Honorary Surgeon to her Majesty, under Article 35, an officer below the rank of Deputy Surgeon-General shall, if duly qualified under Article 21, be promoted to that rank, and shall remain supernumerary of his rank until he would have attained the rank of Deputy Surgeon-General in ordinary course.

21. An Officer shall not be eligible for promotion to the rank of Deputy Surgeon-General unless he shall have served at least ten years abroad, including three years in India.

RETIREMENT

Voluntary Retirement.

22. A Medical Officer, after completing ten years' service, may be permitted to retire on the gratuity or pension laid down in Article 47, when it shall be deemed expedient by our Secretary of State. Before such voluntary retirement be permitted it shall be specially recommended by our Commander-in-Chief, and approved by our Secretary of State.

23. Any Officer of Class A who shall voluntarily retire before the age of fifty-five years shall be liable to be called upon to serve, in a case of national emergency, in a rank not lower than that from which he shall retire, until he shall complete the age of fifty-five.

Compulsory Retirement.

24. On the completion of ten years' commissioned service, unless he be specially selected for further employment in the Army Medical Department, or, if he be unwilling to continue to serve therein, the services of a Surgeon of Class B shall be dispensed with, and he shall be entitled to receive in lieu of all pension or retirement, pension for wounds excepted, the sum of £1000.

25. A Surgeon of Class B, of less than ten years' service, disqualified for duty by ill-health, certified by a Board of Medical Officers to have been contracted in and by the Service, may, at the discretion of our Secretary of State, be granted half-pay at a rate not exceeding 8s. a day if he shall have served five years or more, or 6s. a day if he shall have served less than five years, for a period not exceeding one year at one time. In special cases in which the circumstances may appear to our Secretary of State to call for exceptional consideration, it shall be sufficient that the disability shall have been contracted in the Service.

26. At the expiration of the period of one year, if the Surgeon of Class B be able to resume his duties, he shall be entitled to complete his term of ten years' service. If he be unable to resume duty, as certified by a Board of Medical Officers, his services shall be dispensed with.

27. If the Surgeon of Class B have served five years on full pay, and be unable to resume duty as certified by a Board of Medical Officers, his services shall be dispensed with, and he shall be entitled to receive, in lieu of all further pension or pay, pension for wounds excepted, a gratuity at one of the following rates, viz. :—

If he shall have completed	9 years' full-pay service	£800
„	8 „	700
„	7 „	600
„	6 „	500
„	5 „	400

28. If a Surgeon of Class B be unable to complete his ten years' service from any cause other than wounds or ill-health, certified by a Board of Medical Officers to have been caused in and by the Service, or reduction of establishment, he shall be allowed not more than six months' leave without pay, after which, if unable to resume duty, his services shall be at once dispensed with, and he shall have no further claim on the Department. In special cases, in which the circumstances may appear to our Secretary of State to call for exceptional consideration, it shall be sufficient that the disability shall have been contracted in the Service.

29. If the services of an Officer of Class B be temporarily dispensed with in consequence of a reduction of establish-

ment, he shall be granted the rates of half-pay fixed by Article 25, until there be an opportunity of re-employing him; or, if he have served five years, he may retire from the Service with a gratuity according to the rates specified in Article 27.

30. A Medical Officer of the rank of Brigade Surgeon, Surgeon-Major, or Surgeon shall be placed on the Retired List at the age of fifty-five, and a Surgeon-General or Deputy Surgeon-General at the age of sixty years.

31. When any Officer serving on April 28, 1876, shall, under Article 30, be compelled to retire at the age of sixty, he shall have added to his Retired Pay such annual sum as our Secretary of State shall consider to be a just compensation for any nett loss he may have incurred from the substitution of sixty for sixty-five years as the age for retirement, taking into account any advantages in pay or retirement he may have derived from our Warrant of April 28, 1876, or from any of our subsequent Warrants.

Honorary Rank on Retirement.

32. A Medical Officer retiring after full-pay service of twenty years and upwards may, if recommended for the same by our Commander-in-Chief, receive a step of honorary rank, but without any consequent increase of half-pay.

EXCHANGES.

33. An Officer of the Army Medical Department shall be permitted to exchange with another Officer of the same Department under such conditions and regulations as shall from time to time be approved by us.

REWARDS AND HONOURS.

34. Good Service Pensions shall be awarded to the most meritorious Officers of the Army Medical Department, under such regulations as shall be from time to time determined by us, with the advice of our Secretary of State.

35. Six of the most meritorious Officers of the Army Medical Department shall be named our Honorary Physicians, and six our Honorary Surgeons.

SICK LEAVE.

44. An Officer may, on the recommendation of a Medical Board, be allowed sick leave of absence on full pay for a period of six months; but in special cases our Secretary of State may, on the recommendation of the Director-General, extend such sick leave on full pay for a further period not exceeding six months.

TEMPORARY HALF-PAY.

45. A Medical Officer who may become unfit for service in consequence of wounds received in action, or of ill-health contracted in and by the performance of military duty, as certified by a Medical Board, may be granted temporary half-pay, to be renewed on a report of a Medical Board, from time to time, until he shall recover, and until an opportunity shall occur for his re-employment. In special cases in which the circumstances may appear to our Secretary of State to call for exceptional consideration, it shall be sufficient that the disability shall have been contracted in the Service.

46. If after remaining for a period of not less than one year on half-pay he shall be reported by a Medical Board to be permanently unfit for further service, he may, provided he shall have been on full pay for a total period of at least five years, be placed upon permanent half-pay.

NON-EFFECTIVE PAY.

47. The rates of Gratuity, Retired Pay, or Half-pay for Medical Officers shall be as follows:—

	Class A. £ s. d.	Class B. £ s. d.
Surgeon and Surgeon-Major:		
After 10 years' service . gratuity	1,250 0 0	1,000 0 0
„ 15 years' service . „	1,800 0 0	—
„ 18 years' service . „	2,500 0 0	—
Surgeon-Major:		
After 12 years' service . daily	—	0 11 0
„ 15 years' service . „	—	0 13 6
„ 20 years' service . „	1 0 0	0 16 6
„ 25 years' service . „	1 2 6	1 0 0
„ 30 years' service . „	1 5 0	—
Brigade Surgeon:		
After 20 years' service . „	1 7 6	—
„ 30 years' service . „	1 10 0	—
Deputy Surgeon-General . „	1 15 0	—
After 20 years' service . „	—	1 1 0
„ 25 years' service . „	—	1 2 6
„ 30 years' service . „	—	1 5 6

	Class A. £ s. d.	Class B. £ s. d.
Surgeon-General . . . daily	2 0 0	—
After 20 years' service . „	—	1 10 0
„ 25 years' service . „	—	1 13 6
„ 30 years' service . „	—	1 17 6

Temporary Half-pay.

A Medical Officer, under 5 years' service . . . daily	£0 6 0
„ „ after 5 years' service . . . „	0 8 0
„ „ „ 10 years' service . . . „	0 10 0
„ „ „ 15 years' service . . . „	0 13 6

48. If a Surgeon-Major or a Surgeon of Class A, whose transfer has been permitted from Class B, shall retire voluntarily on a gratuity, the gratuity awarded under Article 47 shall in his case be reduced by the sum of £250.

GENERAL REGULATIONS.

49. Our Secretary of State may, when he shall deem it fit, employ Medical Officers on the Retired List and Medical Officers of the Militia on the Departmental List, whose regiments are not embodied, in special situations under such conditions as he shall from time to time determine; but such Officers shall in no case retain their appointments after attaining the age of sixty-five years, and on ceasing to hold such appointment shall revert to the Retired List with the rate of retired pay of which they were in receipt when appointed to such special situations.

50. A retired Medical Officer, holding such an appointment, shall cease to draw his retired pay, and shall receive a consolidated salary, exceeding the amount of such retired pay by £150 a year, which shall include all allowances.

51. A Militia Medical Officer, holding such an appointment, shall draw a salary of £150 a year, in addition to the pay and allowances of his Militia rank while his regiment is under preliminary drill or training, as laid down by our Warrant of July 12, 1876; provided that during such drill or training he shall, if necessary, supply a substitute at his own expense for the performance of all medical duties at the station other than with his Militia regiment. Such salary of £150 shall be inclusive of all remuneration for attendance on the families of the Militia regiment, and for the examination of recruits, and of all allowances during the non-training period; but shall give no claim to half-pay, pension, or retired allowance.

52. In all matters not specially provided for in this our Warrant, the Officers of the Army Medical Department shall be subject to the General Regulations for the Departments of our Army.

Given at our Court at Windsor, this 27th day of November, 1879, in the 43rd year of our reign.

By her Majesty's command,

FRED. STANLEY.

SECRETARY OF STATE'S INSTRUCTIONS ON THE FOREGOING WARRANT.

1. The foregoing Warrant will not be applicable to Army Medical Officers while in India or on the Indian Establishment, and no additional emolument will, under its provisions, accrue to Medical Officers serving in that country.

2. The names of the Queen's Honorary Physicians and Surgeons who are Officers of the Army Medical Department will be inserted in the Army List immediately after the names of her Majesty's Aides-de-Camp, and such Officers will be entitled to attach to their names the letters Q.H.P. and Q.H.S., respectively.

3. The name of a Medical Officer who retires voluntarily before the age of fifty-five, and under Article 23, is liable until then to be called upon to serve in any case of national emergency, will be retained in italics in the Army List with those of Effective Officers.

4. The appointment of Brigade Surgeon or Surgeon-Major in a Station Hospital will, at certain stations, be offered to retired Medical Officers or to Militia Medical Officers, duly qualified.

5. The appointment will be for five years, subject to renewal, but not tenable after the age of sixty-five, nor, in the case of a Militia Medical Officer, while his regiment is embodied.

6. The Brigade Surgeons will be executive officers, though available for administrative charge.

7. Principal Medical Officers will make the best arrange-

ments the service will admit of, to avoid throwing mere routine duties on the senior executive officers.

REGULATIONS AS TO ALLOWANCES.

8. Medical Officers doing duty with regiments, battalions, or corps will be permitted to draw staff allowances.

Lodging and Furniture.—Medical Officers' Quarters.

9. The following will be added after Paragraph 6, Clause 56a, Army Circulars, 1878:—

6a. In any case where a District Medical Officer's quarter is not assigned, a Surgeon-Major doing duty with a regiment, battalion, or detachment of troops will not take priority over the Officer commanding such regiment, battalion, or detachment as regards the choice of quarters.

Servants' Allowance.

10. Medical Officers will have the option of employing as servants privates of not less than two years' service in the Army Hospital Corps, or of drawing the money allowance in lieu. The privates so employed will be men of short service, and will not receive Departmental Pay.

Forage Allowance.

11. The following will be added to Paragraph 1, Clause 58, Army Circulars, 1878, which prescribes the number of horses for which forage or an allowance in lieu thereof may ordinarily be drawn by Officers:—

DEPARTMENTAL OFFICERS—ARMY MEDICAL.

	At Home Stations. Horses.	At Foreign Stations. Horses.	With an Army in the Field. Horses.
Surgeon-General.	3	3	4
Deputy Surgeon-General	2	2	3
Surgeon-Major	1	1	2

12. Paragraph 3, Clause 58, Army Circulars, 1878, so far as it relates to Officers of the Army Medical Department, is hereby cancelled.

TREATMENT OF TENIA.—Dr. Stein, of Frankfort, read a paper on this subject at the meeting of German savants, in which he states that of all remedies he prefers the *extractum filicis maris*, which has hitherto failed from having been given in insufficient doses. Preliminary treatment is useless and only irritates the animal. The remedy should be given in the dose of eight grammes enclosed in eight capsules or in Limousin's capsules. The worm is not killed by it, but only stupefied, and it is essential while it is in this condition to bring it away as soon as possible. To this end, calomel should be either combined with the extract or a purgative given the next morning. His method has proved very successful.—*Deutsche Med. Woch.*, November 15.

ACONITIA.—Dr. Oulmont, Physician of the Hôtel-Dieu, terminates a memoir on aconitia, which he presented to the Académie de Médecine, with the following considerations:—It is a well-defined medicinal agent, which acts on man in a regular and certain manner, but which, on account of its energy, should only be employed in very small doses at long intervals. Frequently neuralgias are accompanied by well-marked intermittent and periodic accidents, to combat which quinine should be added. The important point, both for patient and physician, is to be able to rely upon a pure and unchangeable medicinal agent which is always identical in its composition and very scrupulously dosed. It is in order to attain this end that Dr. Moussette has prepared his pills, each containing very exactly a fifth of a milligramme of crystallised aconitia and five centigrammes of pure quinine. In consequence of the energetic action of the aconitia, the susceptibility of the patient should be tried by only commencing the first day with three pills—one morning, midday, and evening. If on the first day no marked sedative action is obtained, we may gradually augment the dose by a pill per diem until six are taken in the twenty-four hours, at which dose we should remain until the pain is subdued, only going beyond it in exceptional cases. If a little diarrhoea comes on, the dose should be diminished. To sum up, physiological investigations and clinical observations conducted in the Paris hospitals have demonstrated that the sedative action exerted by Moussette's pills on the circulatory apparatus, through the medium of the vaso-motor nerves, indicates their employment in neuralgia of the trifacial, congestive neuralgias, and in rheumatic, painful, and inflammatory affections, etc.—*Gaz. des Hop.*, November 25.

FROM ABROAD.

DISLOCATIONS OF THE HUMERUS.

At a meeting of the Philadelphia Medical Society (*Phil. Med. Times*, October 11), Dr. Nancrede read a paper entitled "Observations upon the Pathology of Luxations of the Humerus at the Shoulder-Joint, and their Treatment," in which he observes that some important points in the anatomy of the joint are overlooked by the majority of surgeons.

"An attentive consideration of the nature and extent of the movements of the shoulder-joint will demonstrate the fact that its ligaments cannot by any possibility keep the component bones in close contact, as this arrangement would evidently interfere with the free play of the articulation. In the dissected specimen, indeed, the humeral head drops away from the glenoid fossa so as to leave a considerable interval between them. The muscles which arise and are inserted in the neighbourhood of the joint—viz., the deltoid, supra- and infra-spinatus, subscapular, the scapular head of the triceps, and above all the long head of the triceps—keep the joint-surfaces in contact (aided by atmospheric pressure), and not the ligaments. If the dissected joint be examined, abduction will be found to be arrested by the great tuberosity of the humerus impinging against the under surface of the acromion. Any elevation of the arm above the horizontal is due largely, as Morris has pointed out, to the action of the trapezius. The fibres of this muscle pursue the same course as those of the deltoid, so that, functionally considered, they may be viewed as one muscle, having the spine of the scapula and the clavicle interposed. Still another important point to be remembered is the attachment of the deltoid at about the middle of the outer portion of the shaft of the humerus. The ordinary statement is that this joint is so frequently displaced because its socket is so shallow and the force so applied as to cause the head of the humerus to impinge against the weakest portion of the capsule. If by 'weakest portion of the capsule' is meant the part least supported by muscles, the statement may be correct; but the examination of comparatively few specimens will prove what *a priori* we ought to have inferred from the freedom of movement—viz., that no one portion of the capsule is invariably stronger than another, since the purpose of the constant thickening of any segment of such a ligament is to limit certain movements.

"It may be stated as an axiom that when the long axis of the head of the bone in any enarthrodial joint coincides with the centre of the socket it is perfectly secure against luxation. What prevents a man from displacing the head of his humerus when striking an adversary, where force is applied at the distal end of the extremity in a manner not unlike that which occurs when a luxation takes place? Let us examine the mechanism of what is called 'striking out from the shoulder.' When the arm is drawn back preparatory to the blow, the scapula is carried towards the spine, and is enabled by the motion taking place at the acromio-clavicular joint to present its glenoid fossa forward, thus providing a firm bearing for the head of the humerus upon the centre of the socket. As the blow is delivered, the angle formed by the clavicle and scapula is rendered more acute, so that, when the arm is fully extended, the side of the body being at the same time advanced, the centre of the glenoid fossa coincides with the long axis of the humerus. The proof of the necessity of this exact adaptation is seen when a man actually luxates his humerus when unskillfully striking a blow, as has been recorded in one instance."

Displacements of the shoulder-joint may be produced by direct force, as a fall on the shoulder, or indirectly, as by a fall on the elbow or hand, when abducted, or at least partially abducted, as well as flexed or extended. The effect of the spasmodic contraction which accompanies the accident is, in the case of direct force operating, to draw the scapula towards the spine, whereby the glenoid fossa is compelled to face obliquely forwards and outwards, so that when the shoulder strikes the ground, instead of the glenoid cavity presenting its surface at right angles to the long axis of the head of the humerus, an inclined plane is formed, along which the head of the bone glides, aided by the spasmodically contracted abductors, with an impetus that no ligament can resist, landing the bone in some portion of the axilla, varying

somewhat with the direction of the force, and which muscles remain to draw the bone into its new position. In the luxation on the dorsum of the scapula, owing to the direction of the force, and the inability of the glenoid fossa to assume its normal position in time, the head of the bone is forced along an inclined plane in the reverse direction to that pursued in a displacement forwards.

When indirect force displaces the bone it acts still more advantageously, a double lever action taking place. The spasmodic contraction of the muscles fixes the scapula, so that when the arm reaches its limit of abduction (combined with either extension or flexion of the humerus), the impingement of the great tuberosity against the under surface of the acromion fairly forces the bone out of the socket. The point of contact of the tuberosity and the acromion is the fulcrum by means of which the power or blow applied to the arm is enabled to move the resistance, *i.e.*, it ruptures the capsule. This is a lever of the first kind; but a lever of the third kind is also brought into operation, the contraction of the deltoid providing a second fulcrum at its point of attachment to the humerus which enables the pectoralis major, latissimus dorsi, and teres major muscles (the infra-spinatus and teres minor probably aiding) to overcome the resistance by rupturing the capsule, dragging the bone out of place. With such enormous mechanical advantages for displacement, no depth of socket or strength of ligament could avail much.

In the discussion which ensued, Dr. Henry Smith observed that sufficient importance has not been attached to the action of the infra- and supra-spinatus muscles in considering the pathology of this accident, and referred to the experiments of Sir Astley Cooper, in which all the muscles of the shoulder-joint were removed except the supra-spinatus, and the head of the bone still remained in its socket. The method of reducing the luxation by manipulation is dependent upon a knowledge of the action of these scapular muscles. Dr. Allis stated that in his experiments upon the cadaver he had not been able to produce dislocation of the shoulder as readily as he could of the hip-joint. As the capsular ligament is thinner in the shoulder-joint it is evident that the muscles must play a very important part in the prevention or production of dislocations. When the force is sufficient to carry the head of the bone out of the socket, the muscles are torn as well as the ligament, showing that it is not the capsule alone that holds the bone in its place. He had seen a case in which spontaneous reduction took place by muscular action after the failure of the attempts of the surgeon, and Dr. Hamilton reports a similar case. In answer to a question whether persistent efforts at reduction ought to be made in a dislocation of three months' standing, Dr. H. Smith replied that after the adhesions had been broken up, such a dislocation could generally be reduced with the greatest facility by manipulation; and he related a case in which this took place after failure with Jarvis's adjuster. Dr. Nancrede observed that he had learned the method of reducing dislocations of the shoulder by manipulation from Dr. Henry Smith, thirteen years ago; he had ever since practised it with success.

JUBILEE OF PROFESSOR SCHLEIDEN.—A short time since the jubilee of the fortieth anniversary of the doctorate of Prof. Schleiden, the founder of the cell-theory, was celebrated at Jena. A deputation from the medical and philosophical faculties repaired to Wiesbaden, where he now resides, and presented him with a beautiful album and an address, acknowledging the great services which he had rendered to the progress of science.—*Deutsche Med. Woch.*, November 15.

AMERICAN TRICHINOUS PORK.—In a communication to the Belgian Academy of Medicine, M. Dele, after recounting the ease with which he produced trichinosis in rabbits by feeding them with pork containing trichinæ, in imitation of experiments that have so often been performed in Germany, went on to say that he had found that trichinæ occasionally contained in the hams which are brought from America in large quantities to Antwerp, salted but not smoked, cannot be propagated in the same way, the process of salting having, in fact, killed the nematoid. He examined 376 of these hams before he found one infected, but in this the trichinæ abounded, but were devoid of animation.—*Presse Méd. Belge.*, November 23.

REVIEWS.

The Wasting Diseases of Infants and Children. By EUSTACE SMITH, M.D., F.R.C.P., Physician to His Majesty the King of the Belgians; Physician to the East London Children's Hospital, etc. Third Edition. London: J. and A. Churchill. Pp. 360.

A Practical Treatise on the Diseases of Infancy and Childhood By the late THOMAS HAWKES TANNER, M.D., etc., and ALFRED MEADOWS, M.D., F.R.C.P., Physician-Accoucheur to, and Lecturer on Midwifery and the Diseases of Women and Children at, St. Mary's Hospital, London, etc. Third Edition, revised and enlarged. London: Renshaw. Pp. 499.

A Treatise on the Diseases of Infancy and Childhood. By J. LEWIS SMITH, M.D., Clinical Professor of Diseases of Children in Bellevue Hospital Medical College; Physician to the New York Foundling Asylum and to the New York Infant Asylum, etc. Fourth Edition, thoroughly revised, with illustrations. London: H. K. Lewis. Pp. 758.

As new editions of all the above-mentioned works on the diseases and management of infants and children have been recently published, it will be convenient to notice them all together. But any lengthy description or criticism is quite unnecessary in the case of any of them, seeing that each has already acquired a very favourable reputation, and has passed through several editions, some of the earlier of which received a lengthy notice in these columns. And as each of the treatises has peculiar and well-known merits of its own, the proverbially odious task of adjudicating their relative degrees of excellence would be not only unnecessary, but impossible.

Dr. Eustace Smith's work, so faithful in its description of the clinical features of the very large class of diseases of children in which wasting is a prominent symptom, has been thoroughly revised in this third edition. The very full and detailed description of the dietaries suited to children in different conditions is as noticeable a feature of the work as in former editions. On some of the pathological questions broached by the author we might be inclined to offer some criticism; but purely pathological questions are quite subordinate in the volume to the excellent clinical and practical details.

The treatise originally written by Dr. Tanner, and edited in the second and third editions by Dr. Meadows, is much more comprehensive in its aim and execution than Dr. Eustace Smith's volume, attempting, as it does, an account of *all* the diseases of infancy and childhood. Indeed, it seems to us to err here and there in merely repeating what all its readers must have previously studied in other volumes not specially devoted to the consideration of the disorders of early life. Thus, in treating of affections common to children and adults, it is not content with a description of the peculiarities of such affections as seen in children, but attempts an exhaustive account of those diseases, as if they occurred only in children. But though this feature is so noticeable in some places as even to call for an apology from the editor in the middle of the volume, it nevertheless makes the work much more complete in itself as an exhaustive book of study and reference on everything pertaining to the ailments of infants and children. This third edition has been thoroughly revised by the editor with the assistance of Dr. Venn. The chief additions and alterations have been made in the sections devoted to nervous and respiratory diseases. The excellence of the volume as a suitable work of reference has been enhanced by an enlarged and useful index, and we can confidently recommend the work as a trustworthy authority on the hygienic and medical management of infants and children.

The treatise by Dr. J. Lewis Smith is one which has obtained a well-deserved reputation, not only in America but also in this country. In its scope the volume is similar to the one just mentioned, embracing an exhaustive exposition of all the ordinary ailments of infants and children; but the volume, as a whole, confines itself more strictly to the diseases peculiar to early life—or to the peculiarities of other diseases as they manifest themselves in early life—than is the case with Dr. Tanner's treatise. Consisting of 758 closely printed pages, Dr. Smith's volume contains much excellent teaching on the various subjects discussed. The author has had a very large experience in the treatment of infantile diseases,

which renders his work a most useful one for the practical purposes of all who are engaged in the treatment of the affections of infancy and childhood. In this new edition the sections on therapeutics have received special attention in the revisal. This volume is also supplied with a copious and serviceable index.

The Student's Guide to Surgical Diagnosis. By CHRISTOPHER HEATH, F.R.C.S., Holme Professor of Clinical Surgery in University College, London, and Surgeon to University College Hospital; Honorary Fellow of King's College, London. London: J. and A. Churchill. 1879. Pp. 210.

MR. HEATH is so well known as an experienced and able surgeon, as well as a capable and practised clinical teacher, and as having clear, well-thought-out opinions of his own, together with a power of putting them plainly and forcibly before others, that we are disappointed to find a work by him, on Surgical Diagnosis, of such an elementary and class-book character. It is somewhat surprising that a good book on the subject has not long ago been brought out by one of the teachers of surgery in this country. Since 1857, when the first edition of Dr. Barclay's well-known work on Medical Diagnosis appeared, students—and, indeed, practitioners as well—have found such aid as reading can afford in the acquisition of a systematic mode of inquiry into medical cases. More recently, Dr. Fenwick's "Guide to Medical Diagnosis" has, we understand, become deservedly popular.

There can be no doubt that a good system of investigation, by cultivating a habit of correct, careful, and varied observation, leads to a more familiar acquaintance with disease, and a better understanding of the *rationale* of treatment, than an irregular, uncertain, and hap-hazard method can do. It is well, therefore, that the general and more important considerations on which diagnosis is based should in a clear and definite manner be placed before the student, so that he can the more readily elaborate details and recognise points of less importance in regard to different diseases by daily visits to the wards. In this manner, doubtless, the medical works above referred to have assisted all who have studied them, and by their aid the examination of patients has been made with precision and clearness by many who either have not had, or have missed, opportunities of following the teaching of good clinical professors and instructors regularly and for a prolonged period.

But it is one thing to give instruction as to the method of diagnosis, and as to the general and local conditions of a patient—how to investigate them, what fallacies there are to guard against, what interpretations are to be rendered, and what difficulties are to be eliminated,—and another to give a cut-and-dry description of the symptoms of individual diseases.

This latter method is clinical instruction, condensed and made easy, it is true; but unless it is very largely infused with bedside teaching and observation, tested by the irresistible logic of post-mortem examination, and the less certain, but also valuable, results of treatment, it is likely to be made dangerous as well.

We mistrust the dogmatic and hard-and-fast method of clinical teaching, and prefer the slower, but infinitely safer, method of the study of authentic writings and bedside work.

We have very carefully looked into Mr. Heath's book, and acknowledge that, so far as a mere grouping of surgical affections anatomically, and the arrangement of the "symptoms of each in the order in which they would strike a painstaking observer," can assist students in bringing their knowledge to bear promptly and efficiently upon the patient before them," this little volume will serve its purpose admirably. The faults it contains are for the most part due to its abbreviated, dogmatic, and often even tabular style, and are such as appertain to the method itself. The descriptions are limited to the most salient points, for the double object of bringing out strikingly the features of a disease and of marking it off from those other affections to which it is most nearly allied.

Mr. Heath has done well to inculcate in his introduction the habit of note-taking in early life, and he gives some "Heads for Reports on Surgical Cases," such as are in use amongst students at most of the London hospitals. He rightly warns his readers that "how to observe is an art to be attained only by practice," and states that the object of his book is to inform them as to *what* to observe in

any given case; "for it must be remembered," he goes on to say, "that though in surgical descriptions the symptoms are arranged according to their order of importance and successively, in the living patient they are more or less commingled, masking one another, and requiring care for their disentanglement." Herein, in our opinion, lies the danger of such works as the one before us. In the hands of the well-read, careful student they may become useful aids to the memory; in the hands of the indolent and ignorant their very merits become their faults. This little volume will, we have no doubt, find many readers amongst junior students of surgical diseases.

GENERAL CORRESPONDENCE.

THE DISTINCTION BETWEEN TYPHUS AND TYPHOID.

LETTER FROM DR. R. PERRY.

[To the Editor of the Medical Times and Gazette.]

SIR,—While referring to the discovery of the distinction between typhus and typhoid fever, Dr. A. P. Stewart, in his letter to you of November 22, says: "I am not aware that in 1840 any persons in this country besides Dr. John Reid and myself were convinced of the specific difference of the two diseases." I am glad to hear that Dr. Stewart has survived the attempt to bury him alive, but am sorry to think that his memory appears to have failed him when he made the foregoing statement.

In proof of this, allow me to narrate briefly a few facts with reference to what happened in Glasgow prior to the publication of his observations in 1840—facts still fresh in the recollection of many medical men here.

In 1833 the late Dr. Perry, of Glasgow, was appointed one of the Physicians of the Glasgow Royal Infirmary, and continued to act as such for many years after, during which time he had many thousand cases of fever under his charge. Shortly after his appointment he appears to have been convinced that typhus was a disease quite distinct from typhoid fever, or dothenteritis, as the latter was at that period termed, and very frequently stated his opinions before the Glasgow Medical Society, as may be seen from the following quotation from its minutes:—"May 19, 1835.—339th Meeting. —Dr. Perry having on various occasions stated to the Medical Society a number of propositions as the result of his observations in typhus fever in the Fever Hospital of Glasgow, which were not considered to be in accordance with the experience of the generality of the members of the Society; and at the same time their great importance, if made out, being fully admitted,—on the motion of Mr. Watt, seconded by Dr. Macfarlane, it was agreed that five members of the Society should be appointed as a commission to visit the wards of the Fever Hospital along with Dr. Perry, who readily undertook to point out the facts upon which his opinions had been formed. The following gentlemen were appointed a commission by ballot:—Dr. Wm. Weir, Dr. Young, Dr. John Pagan (late Professor of Midwifery, Glasgow University), Dr. John Macfarlane (late Professor of Practice of Medicine, Glasgow University), and Mr. Geo. Watt."

The Committee gave in their report to the Society on May 17, 1836, substantially agreeing with Dr. Perry's opinions, and recommending a second commission to continue the investigations, the appointment of which the Society at once made.

The propositions submitted by Dr. Perry to the Glasgow Medical Society were published by him in the *Edinburgh Medical and Surgical Journal*, vol. xlv., 1836. They were also embodied in a paper read by him to the British Association in Dublin in 1836.

A great deal of interest was excited amongst the members of the medical profession in Glasgow and elsewhere in the investigations which then took place; and both Drs. A. P. Stewart and Andrew Anderson—being at that time students of medicine and Resident Physician's clerks in the Glasgow Royal Infirmary—had their attention directed to these new views of Dr. Perry, and both subsequently published admirable statistical papers on the subject in 1840.

While Dr. Perry's views were quite clear as to the distinct non-identity of typhus and typhoid fever, he committed the mistake of stating that the intestinal glandular lesions so

characteristic of enteric fever may be found as a complication in a proportion of typhus cases; and although I am aware that my father's opinion upon this point became afterwards more in accordance with the facts, I admit that it is unfortunate he did not publish the results of his subsequent experience.

Even Dr. Stewart, who now claims the priority of the discovery of the non-identity of typhus and typhoid fever, states that out of twenty-two cases of typhus Peyer's glands were distinctly elevated in two. While Dr. Anderson, who was making his observations in the same hospital, from September, 1837, to September, 1838, at the same time as Dr. Stewart, out of fifty-five inspections of cases in which the typhus eruption had been present, reported some enlargement in a high proportion and ulceration in Peyer's glands in five cases.

In the propositions submitted to the Glasgow Medical Society in 1835, and afterwards published in the *Edinburgh Medical and Surgical Journal* in 1836, Dr. Perry details the points of difference between the two forms of fever, shows that typhus is strongly contagious and always gives rise to typhus only in a person exposed to that contagion and afterwards seized with fever, and lays down as one of his proved observations, "that inflammation of the membranes of the brain, of the bronchi, and of the mucous membrane of the stomach and intestines, and various febrile affections arising from cold, fatigue, improper ingesta, etc., more particularly of the aggregated glands of the ileum and the mucous follicles, often termed dothenenteritis or gastro-enteritis, have been too often confounded by medical practitioners with typhus fever, though they are characterised by dissimilar symptoms and require a very different mode of treatment."

With these remarks, I ask your readers if it is fair in Dr. A. P. Stewart to state that he is not aware that in 1840 any persons in this country, besides Dr. John Reid and himself, were convinced of the specific difference of the two diseases.

I am, &c.,

ROBERT PERRY.

11, Queen's-terrace West, Glasgow, December 2.

ON CORNEAL TRANSPLANTATION.

LETTER FROM MR. W. M. PICKERING.

[To the Editor of the Medical Times and Gazette.]

SIR,—Dr. Wolfe's paper on this subject, which appeared in your columns of November 22, brings down the history of the case to a fortnight after the transplantation was done. As I assisted in the operation, and have watched the case all along, perhaps you will allow me to supply details of the patient's progress up to the present time, when he is about to leave the hospital.

On the nineteenth day after the operation he had an attack of headache, vomiting, and diarrhoea, which lasted for twenty-four hours; this, however, did not effect his eye in the least. He has continued to progress as well as can be expected in such a case. It is now more than a month since the operation, and when we examined the eye to-day, in presence of Dr. Charteris and Dr. Cumming, we found the corneal flap perfectly adherent, and its transparency, instead of diminishing, has, if anything, slightly improved. The patient could count fingers, point out rings, and tell the difference between the colour of a sovereign and a shilling at twelve inches from his eye, and he could distinguish features at three feet distance.

I deem it necessary to make this statement on account of the peculiar nature of the case, for, notwithstanding the great confidence of the operator in the principle of the procedure, I expressed scepticism as to the issue in this particular instance; but, considering the results thus far obtained, no one who has seen the case can have any doubt that the important problem of transplanting a transparent cornea has been satisfactorily solved.

I am, &c.,

W. M. PICKERING, M.B.,

Assistant-Surgeon Glasgow Ophthalmic Institution.

Glasgow, December 1.

THE TITLE OF "DOCTOR."

LETTER FROM MR. R. LEIGH.

[To the Editor of the Medical Times and Gazette.]

SIR,—Mr. Fraser, in his paper on Medical Etiquette, advocates the using of the title of "Dr." to any special

practising physician. However Physician and "Dr." may be considered convertible terms with the general public, it is well known in medical society that a Doctor of a University is only rightly entitled to the title, and it would be infringing their right in granting it to all physicians. An L.F.P.S. Glasgow is a physician, and has the conventional claim to "Dr.," which is to be deprecated and regretted. The former part of Mr. Fraser's paper is in accordance with the above remarks.

I am, &c.,

R. LEIGH.

Park-road, Liverpool, December 2.

REPORTS OF SOCIETIES.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

WEDNESDAY, NOVEMBER 19.

S. J. A. SALTER, F.R.S., President, in the Chair.

THE first meeting of the present session was held on the 19th ult., at the rooms of the Association, 11, Chandos-street, Cavendish-square, W., when Mr. J. Russell West, M.B., Dr. W. H. Lovejoy, Mr. Edward Keen, and Mr. John Evans were proposed as Fellows.

ON THE SENSIBILITY OF DENTINE.

THE PRESIDENT called the attention of the Society to some physiological questions relating to the sensibility of dentine, and illustrated his remarks by diagrams. The points enforced were, that the dentine is to a great extent endowed with sensibility by its connexion with the nerves of the pulp; but not wholly so, for areas of exposed dentine are sometimes found acutely painful, when touched by steel instruments, in teeth in which the tooth-pulp has entirely perished. In such cases the connexion of the sensitive dentine with the sensorium must be through the nerves of the periosteum, and he believed that such a nervous connexion always exists. Furthermore, in some instances in which there was sensitive dentine, and the pulp still remained quick and alive, the usually received explanation—that the nervous connexion was established by a direct radiation along the tubes from the pulp to the sensitive area of dentine—could not hold good, as the intervening dentine might be, and often is, eroded by decay, and yet an outlying mass of dentine remains painful to the touch. In such instances, if the pulp is the source of sensation, it must be established by a circuitous route and by collateral connexions. The President then read extracts from a letter he had received from Mr. Alfred Coleman, in which he stated that he had met with cases of sensitive dentine that could only be explained by the views already propounded.

RETARDED DENTITION.

MR. T. EDGELOW made a few brief remarks on a case of retarded dentition that had lately come under his notice. The patient, a girl aged fourteen, epileptic since her birth, had great deficiency of the permanent teeth, the upper and lower incisors being the only teeth that met. She was small, short, had curvature of the spine, and a large head, but there was no syphilitic history. No teeth had ever been removed, and there was no reliable history of the primary teeth. She suffered from great want of masticating power, and Mr. Edgelow thought that by adapting plates it might be the means of causing the eruption of the other teeth.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 25.

JOHN E. ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

TREPHING FOR TRAUMATIC EPILEPSY.

THE PRESIDENT read for Mr. James F. West, of Birmingham, a case in which trephining had been successfully employed by the latter for traumatic epilepsy in a girl aged fourteen. The injury was due to a blow from a stone, which caused fracture of the skull and concussion of the brain. Since 1871, when it was inflicted, the girl had been subject to epileptic fits

which had year by year increased in number and severity, until they had at last reduced her to an almost idiotic state. Two circles of bone over the site of the depressed fracture (which was, however, formed to involve only the outer table) were removed on November 25, 1878, with antiseptic precautions. From that date the girl began to improve; speech returned, also the power of controlling the bladder and rectum. Antiseptic treatment was discontinued on December 3, and at the end of the month she left the Queen's Hospital, Birmingham, cured, and from that time to the present she has had no return of the epileptic convulsions. Mr. West gave a brief *résumé* of the surgical writings on the operation of trephining for epilepsy, calling special attention to the work of Dr. Le Just Championnière on the subject ("La Trépanation guidée par les Localisations Cérébrales"; Paris, 1878), and to the valuable paper by Dr. Echeverria, "On Trephining for Epilepsy depending upon Injuries of the Skull," in the *Archives de Médecine* for December, 1878. He considered that the trephine might be applied with advantage in many cases where epilepsy was dependent on a traumatic origin; that there were, owing to recent discoveries in physiology, valuable indications to be derived as to the exact nature of the lesion, and the site at which the operation should be performed; and lastly, that, with antiseptic precautions, trephining might at the present day be performed with a greater prospect of success than it formerly could have been, and that it might now, therefore, be looked upon as a justifiable operation.

Dr. ALTHAUS having clearly elicited that the cicatrix was situated on the right side of the forehead two inches above the eyebrow, and to the right side of the median line, proceeded to remark that the case was of doubtful practical importance, seeing that epilepsy from injury of the cranial bones was extremely rare. He had not seen a clear and undoubted case in 3000 epileptics. There was a history of injury in some, but depression and actual lesion were not seen. In some he had thought of trephining, but with iodide of potassium they did very well. There could be no doubt in his mind that localisation was now proved, but the details yet remained to be settled. It seemed curious that in this case injury to the right side should have produced aphasia. Still, there were all kinds of exceptions to the rules yet laid down, and the site of the various functions was undoubtedly bilateral. As to localisation guiding to the site for operation, that he considered doubtful. Taking the symptoms, in this case they would have indicated an operation on the left side. On the whole such operations were not entirely successful, and some were strongly opposed to them as likely to give rise to septicæmia. Championnière's suggestions were of the most fanciful.

Mr. BELLAMY mentioned a case in which he had operated at the suggestion of Dr. Lees. The trephine was applied as nearly as possible over the fissure of Rolando, where there was a scar resulting from a blow thirteen years previously. Since the operation there had been no fits. The operation was done on the site of the injury.

Mr. WILLIAM ADAMS referred to certain cases, one of which had come under the care of Mr. Cline. Here there was depression of the inner table. In a case under the care of Mr. Green, where the girl was cataleptic, the dura mater was lacerated, and death followed. In a case at the Great Northern Hospital, where fits had followed on an injury, he had wished to trephine, but had been persuaded to use large doses of antimony, with a successful result.

Mr. HUTCHINSON said that as in this case there had fortunately been no post-mortem examination they could not with safety conclude that there was no injury on the left from *contrecoup*. The left paralysis and the aphasia and epilepsy were not necessarily connected. They might, at all events, learn from the case not to build too much in the meantime on localisation, but rather to seek to operate at the site of the injury. His own experience was that such cases were very rare. He would operate under the conditions described by Mr. West, and the operation need not now be so dangerous as formerly. Statistics on the point of trephining were extremely fallacious, all kinds of cases being grouped together, so that the results were totally untrustworthy. There was no other operation he knew which had suffered so much from statistics. In his experience, however, trephining in anticipation of cerebral irritation was very successful.

Mr. GAY mentioned the case of a man who suffered under great depression, and ultimately committed suicide. Five

years before that he had fractured his skull on the right side. The wound healed slowly, some bone coming away. After death it was found that the internal table was depressed, with adhesion. The external table was gone at the spot. This was just in front of the fissure of Rolando. The dura mater was thickened at the spot, but there was no apparent disease elsewhere. It was noted that pressure over the site of this injury produced hallucination ranging in intensity with the degree of pressure.

Mr. HOLMES recalled to memory that he had seen a case under the care of the late Mr. Johnson, where there had been injury to the skull followed by epilepsy. Trephining was tried, but the dura mater was lacerated, and death followed. Nothing remarkable was to be seen, except a kind of general thickening from chronic inflammation, which had caused the rupture. Notwithstanding antiseptics these cases were still dangerous when operated on.

Mr. T. SMITH asked what the success of the operation was due to—was it the simple operation itself, or the spot where it was performed?

Mr. F. DURHAM mentioned two cases he had seen at Guy's, one under the care of Mr. Cooper Forster, which was quite successful; no antiseptics were employed. The other was under the care of Mr. Howse, but here the fits went on; antiseptics were employed.

Mr. BRYANT mentioned a case where the patient suffered pain at a certain spot and was epileptic. He thought there was some depression, and began to operate; but finding none, and the bone quite healthy, he ceased. Strange to say, the patient had been well since. In two other cases, somewhat similar, simple incision had sufficed. He could not think trephining perfectly safe—there was always risk of injury to the membranes; nevertheless, in certain cases the operation was necessary. He was surprised to hear Mr. Hutchinson speak so well of it after accident.

Dr. POWELL asked what was the immediate cause of the fits: was it merely local and direct, or reflex and thus more remote. He mentioned the case of a boy who had been kicked on the tibia; the wound had healed, but left an exostosis, and he became epileptic. The fits were preceded by an aura arising at this spot and extending upwards, sometimes stopping short in the thigh, sometimes going on to a regular epileptic attack. Mr. Hulke removed the growth, after which the fits gradually diminished in number and intensity.

Mr. WEST, in reply, said the case he had reported was remarkable, but far from unique. He had expected to find some mischief of the inner table, but there was nothing. Improvement began immediately. Such cases were no doubt rare, yet inquiry might make the rarity less. True *contrecoup*, he thought, was very uncommon, and he did not like the idea of trephining to prevent future symptoms.

THE CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 28.

E. H. GREENHOW, M.D., F.R.S., President, in the Chair.

TRAUMATIC ANEURISM OF THE SCALP OF TWENTY-TWO MONTHS' DURATION.

MR. W. J. TYSON, of Folkestone, read this paper. The patient, W. M., aged fifty-six, an hotel proprietor, in September, 1875, whilst out shooting, was struck by a stray shot on the back of the head, causing at the time considerable hæmorrhage, which was eventually stopped by cold water and the application of a handkerchief. The hæmorrhage did not recur, and a week elapsed before he obtained advice; he then consulted a medical man, who detected nothing abnormal about the seat of injury. Five weeks later, when seen by the author, he was complaining of an indefinite kind of sensation about the parts, caused, as he thought, by the presence of a shot, but none could be found. He was not seen again until January, 1877, sixteen months after the receipt of the injury, when there was a hard and firm hemispherical swelling, the size of an ordinary walnut, destitute of bruit and of pulsation; it was situated between the right mastoid process and the occipital protuberance; on puncturing the tumour a drop or two of blood escaped. Removal was recommended. In the following June the swelling had increased to the size of a small orange; still no pulsation could be felt or heard. On June 30, two days later, he was operated upon. A long

horizontal incision was made across the tumour, and whilst proceeding to dissect back the flaps it was accidentally nicked, and furious hæmorrhage immediately came on. The lump was extracted as soon as possible, and a sponge placed in the wound; ultimately, after some difficulty, the bleeding was stopped, and firm pressure kept up. The next day, however, whilst removing the sponge, the hæmorrhage came on again; the vessel was secured by passing a tenaculum carrying a silken suture under it. The wound was a large one, over four inches in length and one in depth. For two days after the operation the patient was unable to retain much nourishment on account of the sickness which supervened. On July 2 he had a mild attack of delirium tremens; this lasted for three days. Hence he made a steady, but progressive, recovery. The wound was washed out every morning with carbolic acid lotion, and afterwards carbolic oil dressing was continued until the wound had healed. On July 24 he went out for the first time, and on August 18, seven weeks after the operation, the wound had completely healed. For two or three months he complained of numbness about the cicatrix, but this, after a while, disappeared. The author thought there could be little doubt as to the nature of the case, viz., a small and partial division of an artery—probably, from the situation, a branch joining the occipital with the posterior auricular. The skin-wound had rapidly closed, leaving the vessel still open. The tumour was slowly increased in size by the gradual deposition of fibrin. The length of time which the aneurism had existed, considering it to be false, was very uncommon, but was accounted for by the unyielding condition of the surrounding scalp. The skin over the swelling was not thinned, and so it would be difficult to say how much longer the aneurism would have remained before bursting. The diagnosis plainly indicated by the history was obscured by the absence of pulsation or of a bruit, but the nature of the case was made painfully evident during the operation, for until the old clot was removed the bleeding vessel could not be reached, and whilst doing so other vessels in the scalp were divided. The author thought the treatment adopted was the only one that could be recommended. The history of the case was instructive, for had the patient, in the first instance, consulted a doctor, and had he properly secured the vessel by dividing it, all further trouble might have been avoided, whereas, as it was, he certainly ran some risk of his life.

Mr. HOWARD MARSH referred to an instance where an aneurism was mistaken for a sebaceous tumour, and its removal proceeded with. During the operation an artery was accidentally wounded, and considerable hæmorrhage occurred. As in Mr. Tyson's case, the sac was opened, and subsequent cure by contraction followed.

Mr. TYSON said that in his case the aneurism was originally thought to be a sebaceous tumour.

(To be continued.)

THE HOWARD MEDAL.—This year a lady has carried off the Howard Medal. At the first meeting of the present session of the Statistical Society the Medal and £20 were presented to Miss Beatrice A. Jourdan, as the writer of the best essay "On the Improvements that have taken place in the Education of Children and Young Persons during the Eighteenth and Nineteenth Centuries." The subject of the essay of next year is "The Oriental Plague, in its Social, Economical, Political, and International Relations."

MORPHIA-MANIA.—At the Berlin Medical Society, Dr. Levinstein read a paper upon this subject, in which he stated that he was enabled to confirm the propositions which he had laid down in his book. With respect to the treatment, he maintains that the proper practice in general is to at once leave off the morphia. Yet, in some cases occurring in sensitive persons, it has to be continued in the customary doses for two or three days, and then gradually diminished. A curious fact deducible from the statistics of his cases is that of 110 cases occurring between the ages of twenty-one and sixty-five, of which number eighty-two were men, the surprisingly large contingent of thirty-two were medical men, and eight medical men's wives. Among the relapses medical men occupied the first place, and after them came apothecaries—facts explicable by the wearing bodily and mental exertion of the medical calling.—*Deutsche Med. Woch.*, November 15.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday November 27:—

Myers, Arthur Thomas, 3, Bolton-row, W.
Shirreff, William Henry, Edinburgh.
Thompson, Charles Emilius, 10, Delamere-street, W.
Wallace, James Robert, Bengal.

The following gentlemen also on the same day passed their Primary Professional Examination:—

English, Edgar, London Hospital.
Talbot, Edward, St. Thomas's Hospital.
Trevor, Henry Octavius, St. Thomas's Hospital.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

BATCHELOR, G. A., M.B. Aber., M.R.C.S. Eng.—Medical Officer to the Fifth District of the Hackney Union.

BUNN, CHARLES G., L.S.A.—Resident Medical Officer to Charing-cross Hospital, *vice* — Harrison, resigned.

CLARKE, W. JENNER, L.S.A.—Assistant Surgical Officer to the Charing-cross Hospital, *vice* — Murray, whose term of office has expired.

CULLING, JOHN C., L.S.A.—Resident Obstetrical Officer to the Charing-cross Hospital, *vice* — Turton.

HOOLEY, ARTHUR, L.S.A.—Assistant Medical Officer to the Charing-cross Hospital, *vice* — Bunn.

STEAVENTSON, W. C., M.B. Cantab., M.R.C.S. Eng.—House-Surgeon to the Hospital for Sick Children.

TURTON, JAMES, L.S.A.—Resident Surgical Officer to the Charing-cross Hospital, *vice* — Pattison, resigned.

BIRTHS.

ALSTON.—On Advent Sunday, at Sandgate, the wife of Surgeon-Major W. E. Alston, of a daughter.

BROOKHOUSE.—On December 1, at 43, Manor-road, New Cross, the wife of C. T. Brookhouse, M.R.C.S., L.S.A., of a daughter.

CAFFYN.—On November 13, at 135, Hornsey-road, London, N., the wife of S. M. Caffyn, M.R.C.S., of a daughter, stillborn.

COLLINS.—On November 24, at 72, Cadogan-place, S.W., the wife of W. Maunsell Collins, M.D., Scots Guards, of a son.

HEAD.—On November 26, at Balsham, Cambridgeshire, the wife of Robert Head, L.R.C.P. Lond., of a son.

JONES.—On November 27, at Clarence House, Southend, Essex, the wife of G. F. Jones, M.R.C.S., of a son.

KING.—On November 27, at Ambleside, Westmoreland, the wife of William Moore King, M.R.C.S., of a son.

MUIRHEAD.—On November 20, at Gelahatting, Assam, the wife of William Muirhead, M.D., of a son.

WALLACE.—On November 30, at Cardiff, the wife of Thomas Wallace, M.D., M.R.C.S., of a daughter.

MARRIAGES.

BALFOUR-WILSON.—On November 25, at Edinburgh, Leslie M. Balfour, W.S., to Jeanie A. Wilson, eldest daughter of William Wilson, M.D., of Florence, and niece of the Lord Justice-General of Scotland.

BLOOMER-SISON.—On November 27, at St. Matthew's, City-road, Harry Bloomer, Esq., of Gough-road, Edgbaston, Birmingham, to Harriet Elizabeth, daughter of Edward Neve Sison, M.R.C.S., of City-road, E.C.

DAVIES-RANKIN.—On November 26, at Handsworth, William Bowen Davies, L.R.C.P., of Brynarlais, Llandrindod, Wells, to Jessie Constance, second daughter of W. Rankin, Esq., of Beechwood, Handsworth, Staffordshire.

O'MEARA-MOSSOP.—On November 27, at Sutton Bridge, Lincolnshire, John Brett Johnson O'Meara, M.D., to Adelaide Martha, eldest daughter of Robert Peel Mossop, Esq., and granddaughter of Robert Mossop, Esq., of Long Sutton, Lincolnshire.

OZANNE-FAUNCE.—On November 25, at Guernsey, James William, eldest son of the late John Ozanne, M.D., to Constance Emily, daughter of Colonel T. Faunce, late 13th Light Infantry.

PERCIVAL-MARTEN.—On November 27, at Wymering, George Percival, M.B., of Northampton, to Alice, sixth daughter of the late William Marten, Esq., of Paul's Grove, Hampshire.

POCOCK-MAY.—On November 26, at St. John's, Angell Town, Walte Pocock, M.R.C.S., of Sunbury House, Brixton, third son of William Pocock, M.D., of Streatham, to Florence Eliza, second daughter of the late Thomas May, Esq., of Montreal and Hamburg.

PRESTON-CANE.—On November 27, at St. Marylebone, Alfred Chevalier Preston, M.R.C.S., to Harriet Eliza, eldest daughter of the late William Henry Cane, M.D., of Uxbridge.

PRICKETT-MORTLOCK.—On December 2, at Kensington-park, Marmaduke Prickett, M.D., to Alice, daughter of Charles Mortlock, Esq., of 9, Lad-broke-gardens, Kensington.

SEARLE-RUGG.—On November 27, at Redhill, Francis Philip Searle, Esq., of Radnor House, Redhill, to Jane Annette Rugg, eldest daughter of George Philip Rugg, M.D., of Stockwell Villa, Clapham-road.

WHIPPLE—TURNER.—On November 29, at Acton, Middlesex, John H. C. Whipple, M.D., Coldstream Guards, to Agnes Sophie, eldest daughter of the late Vincent John Turner, Esq., of Shipton-on-Cherwell, Oxon.

DEATHS.

BROWNE, SOPHIA, wife of Henry Browne, M.D., at Woodheys, Heaton Mersey, on November 26.

HUNT, THOMAS, F.R.C.S., at Herne Bay, on November 26, aged 82.

LEACH, HENRY, M.R.C.P., at 12, Albert-mansions, Victoria-street, S.W., on November 26, aged 43.

ORTON, WILLIAM, M.R.C.S., at Narborough Hall, Leicestershire, on November 29, aged 70.

PARKER, ELIZA, wife of Charles Gunning Parker, F.R.C.S., at Normanby Cottage, Shrivvenham, Berks, on November 26, aged 55.

SPEAR, KATE, wife of John Spear, M.D., Medical Officer of Health at Westoe, South Shields, on November 18, aged 30.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Assistant-Surgeon. Candidates are to be Fellows or Members of one of the Royal Colleges of Surgeons, or a Master in Surgery of one of the Universities of Great Britain or Ireland, are not to engage in the practice of midwifery or pharmacy, and must have attended the practice of some ophthalmic institution for at least six months. Applications, with testimonials, to be sent to the Secretary on or before December 10.

LONDON LOCK HOSPITAL (MALE AND OUT-PATIENT DEPARTMENT), 91, DEAN-STREET, SOHO.—House-Surgeon. Applications, with copies of testimonials, to G. T. F. Abraham, Secretary, on or before December 10.

NATIONAL ORTHOPÆDIC HOSPITAL, GREAT PORTLAND-STREET.—Surgical Registrar. Candidates must be Fellows or Members of the Royal College of Surgeons. Applications to be sent to E. Carr Jackson, Esq., Honorary Secretary to the Medical Committee, on or before December 19.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.—House-Surgeon. Applications, with testimonials, to be sent, on or before December 16, to J. Walter Wilson, Esq., Honorary Secretary.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Easingwold Union.—Mr. James William Smith has resigned the Coxwold District: area 13,499; population 1771; salary £26 per annum.

Lichfield Union.—Mr. F. G. Dalton has resigned the Ogle Hay District: salary £40 per annum.

Mere Union.—Mr. A. H. Watson has resigned the Second District: area 14,262; population 3557; salary £105 per annum. Also the Workhouse: salary £20 per annum.

APPOINTMENTS.

Arundel.—Edward H. Moore as Analyst for the Borough.

Brentford Union.—Frederick C. Dodsworth, L.R.C.P. Lond., M.R.C.S. Eng., to the Second District.

Chelmsford Union.—Robert Z. Pitts, M.R.C.S. Eng., L.S.A., to the Third District.

Chepstow Union.—Thomas William Adam Napier, M.B. and M.C. Aber., to the Tintern District.

Pickering Union.—Arthur Wood, L.S.A., to the Lastingham District.

THE NEW SYDENHAM SOCIETY.—We are glad to announce that the Council of this Society have resolved to reprint the classical work on "Diseases of the Chest," by the late Dr. William Stokes, of Dublin. The editor of the work will be Dr. Alfred Hudson, Regius Professor of Physic in the University of Dublin; and there is some reason to hope that the volume will contain a biography of Dr. Stokes from the pen of a near relative.

UNCERTIFIED CAUSES OF DEATH AT KENSINGTON.—On Wednesday evening, Dr. Diplock, coroner, held two inquests, in Church-street and Young-street respectively, on the bodies of two children who had died from malignant scarlet fever. The cases attracted considerable attention, and the officers of health, with other vestry officials, were present. David Johnson, M.D., of 10, Penywern-road, deposed to having been called to one of the children said to be suffering from croup, but which he found on arrival to be dying of malignant scarlet fever. In the existing unsatisfactory state of the law as to registration, and for other reasons, he (Dr. Johnson) refused to give a certificate of the cause of death, and an inquest was the result. Mr. Monti, surgeon, of Young-street, gave evidence in the second case, and said that on his arrival to see the child he found it dead, and he informed the jury that more than twenty cases of scarlet fever were at present under his care. The Coroner, in summing up, strongly animadverted on the gross negligence which had been practised in preventing the spread of this most fatal disease, and directed the jury to find a verdict in accordance with the medical evidence.

SCIENCE AND ART.—Mr. Edward Bellamy, of the Charing-cross Hospital, is now delivering, at the National Art Training School, South Kensington, his annual course of lectures "On the Anatomy of the Human Form," with demonstrations on the living model; the course being supplemented by twelve demonstrations on the dissected subject.

EXAMINATIONS AT ROYAL COLLEGE OF SURGEONS.—At the half-yearly pass examinations for the diploma of Fellowship of this institution, which was brought to a close on Saturday last, twelve candidates presented themselves, of which number only five were successful; their names cannot be published before they have been submitted to the Council of the College at its next meeting. The following were the questions in Surgery submitted to the candidates at the written examination, when they were required to answer all four questions from 1.30 to 5.30 p.m.:—1. Give the pathology and clinical characters of the disease known as lymphadenoma. 2. Discuss the pathology and treatment of knock-knee. 3. In injuries of the lower extremity, what circumstances should guide you as to amputation, primary or secondary, of the leg or thigh? 4. Describe the changes which blood extravasated in the tissues may undergo.

ROYAL INSTITUTION OF GREAT BRITAIN.—The following lecture arrangements before Easter, 1880, have been announced:—Christmas Lectures.—Professor Tyndall, D.C.L., F.R.S.—Six lectures "On Air and Water," on December 27 (Saturday), 30, 1879; January 1, 3, 6, 8, 1880. (One guinea the course; children under sixteen, half a guinea.) Professor Edward A. Schäfer, F.R.S.—Ten lectures "On the Physiology of Muscle," on Tuesdays, January 13 to March 16. (One guinea.) H. Heathcote Statham, Esq.—Two lectures "On Modern Architecture since the Renaissance," on Thursdays, January 15 and 22. (Half a guinea.) Professor Dewar, M.A., F.R.S.—Eight lectures "On Recent Chemical Progress," on Thursdays, January 29 to March 18. (One guinea.) Professor T. Rupert Jones, F.R.S.—Three lectures "On Coal," on Saturdays, January 17, 24, 31. (Half a guinea.) Professor Ernst Pauer—Three lectures "On Handel, Sebastian Bach, and Joseph Haydn," with musical illustrations, on Saturdays, February 7, 14, 21. (Half a guinea.) Four lectures on History or Literature, on Saturdays, February 28, March 6, 13, 20. (Half a guinea.) The subscription (to non-members) to all the courses during the season is two guineas. Members may purchase not less than three single lecture tickets, available for any lecture, half a guinea. The Friday evening meetings will begin on January 16, at 8 p.m. Professor Dewar, F.R.S., will give a discourse ("Studies on the Electric Arc") at 9 p.m. Succeeding discourses will probably be given by Dr. W. B. Carpenter, Professor J. Marshall, Dr. Huggins, Mr. W. H. Preece, Rev. H. R. Haweis, Mr. F. J. Bramwell, Mr. H. N. Moseley, Dr. C. William Siemens, Professors Tyndall and Huxley, Lord Reay, Mr. G. J. Romanes, M. Lecoq de Boisbaudran, Mr. W. H. Pollock, Professor Frankland, Mr. H. H. Statham, Mr. W. Spottiswoode, and Mr. Warren De la Rue. Only members and their friends are admitted to the Friday evening meetings.

PROFESSOR BROWN-SÉQUARD'S LECTURES.—Professor Brown-Séquard is announced to commence his lectures at the Collège de France, the subject being the "Physiological, Pathological, and Therapeutical History of Inhibition." It is by the phenomena of the arrest of the action of the heart that the lectures will commence, several lectures being required to illustrate syncope in its so variable conditions, conjoined to the study of the rhythmical movements, and the arrest of the heart by association, that is, by the influence of the respiratory effort. Next will come the arrest of respiration, and of the actions allied to respiration; which will comprise the inhibition of the respiratory movements, cough, sneezing, hiccup, yawning, pertussis, angina pectoris, etc. A third series of lectures will be devoted to the arrest of changes in the tissues. Asphyxia, the state of syncope, death by hæmorrhage, cold, sudden death, collapse, shock, the inhibition of the vaso-motor centres and the centres of temperature, the arrest of the secretions, the influence of arrest considered after death in the various tissues, the phenomena of the arrest of cholera, of hibernation, etc., are the subjects which are connected with the inhibition of the changes in the tissues. After this group has been considered, the phenomena of the arrest of nervous activity will follow—that is,

the arrest of cerebral activity, comprising the history of the loss of consciousness in apoplexy, epilepsy, syncope from loss of blood, sleep, asphyxia, and poisoning; next, the arrest of the reflex faculty and reflex movements; and finally, the arrest of the tonic activity of the spinal cord. The completion of this exposition of inhibition will embrace the inhibition of morbid conditions, the arrest of functions considered from a general point of view, and the study of the therapeutical means of arrest, constituting to some extent a theory of inhibition.—*Gaz. Hebdomadaire*, November 28.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—Bacon.

Dr. Alford Nicholls, Dominica, W.I.—Letter and communication duly received. Shall be glad to receive articles. Sorry there was any mistake about former communication.

The City Press says:—"The will of Mr. George William Callender, F.R.S., late of 7, Queen Anne-street, Cavendish-square, who died on October 20, at sea, on board the steamship *Gallia*, was proved on November 17 by the Rev. Richard Clement Callender, the brother, the sole executor. The testator leaves all his property to his executor, upon trust for his children."

More than a Hundred Years Old.—Christy Macpherson, the Skye centenarian, who is in her 107th year, has had her case fully reported to her Majesty the Queen by Dr. Jefferiss, the parish doctor of Sleat, and her Majesty has sent the aged woman £3. Christy is able to move easier than a few years ago. She is not bedridden, but can, with assistance, get out of bed for a short time each day.

The Speculative Builder.—We are glad to again take notice of the vigilance of the officers of the Edmonton Local Board in detecting infringements by builders of the by-laws of the Board. A builder at Upper Edmonton was last week fined £5 for each of three houses built on the Long Ledge Estate, Edmonton, with mortar not of the quality and character required by the by-laws. Notice of appeal was given.

S. M. T., London Hospital.—Mr. Thomas Blizard Curling, F.R.S., Consulting Surgeon to your Hospital, is the nephew of the late Sir William Blizard, who was "Master" of the old Corporation of Surgeons in 1814, and President of the Royal College of Surgeons in 1822. Mr. Curling was admitted a Member of the College, December 7, 1832, and an Honorary Fellow, December 11, 1843. He was elected a member of the Council, with Mr. F. Le G. Clark in 1864, an Examiner in 1871, and President of the College in 1873.

An Unsalariated Medical Officer of Health.—The Seaton Local Board had before them at their last meeting a letter from the Local Government Board, expressing regret that the Medical Officer of Health was not a salaried officer. The Chairman remarked that the Local Government Board evidently did not understand that their Medical Officer of Health was a member of the Board, and therefore could not accept a salary. It was decided that the Clerk should write to the Local Government Board and explain the circumstances to them.

A Cinerated Human Body and its Residuum.—Dr. Le Moyne, of Washington, Pennsylvania, it seems, weighed in lifetime 200 pounds in the gross, but he desired on his death-bed that his body should be burnt in the cremating ovens, and that the product should be accurately weighed. This request his friends strictly complied with, and, in delivering the urn to the heir-at-law, have publicly stated that seven pounds was the total quantity of his calcined remains, and of this the record has been officially made.

Corporal Punishment in Public "Homes."—At the last meeting of the Guardians of St. George's, Hanover-square, a guardian informed the board that he had visited Miss Cotton's "Home" at Leytonstone, and found there a girl who had given a vast deal of trouble. "At first her language was horrible, and it was not until she had been publicly flogged, the medical assistant being present, that she reformed, and was more decent in her language and behaviour. She had been punished once since, but in a 'modified form.'" No steps, it is stated, were taken in the matter.

Contributions to Provident Dispensaries and the Local Government Board.—A letter was read at the last meeting of the Chorlton Board of Guardians from the Local Government Board, pointing out that, under the statute 42 and 43 Vic., cap. 54, sec. 10, they were only empowered to sanction subscriptions by boards of guardians to institutions in which the paupers, under the guardians, could have assistance in case of necessity. That being so, the Local Government Board considered that they had no authority to sanction proposed subscriptions by the Chorlton Board to the Ardwick and Hulme Provident Dispensaries, the rules of those institutions showing that their benefits were only obtainable by persons who paid a weekly subscription to their fund.

Intemperance in Liverpool.—Major Grey's last annual record of police work in Liverpool shows that while the aggregate of felonies is much the same as last year, there is a considerable reduction in drunkenness and crimes of violence. The cases of drunkenness and crimes consequent thereon declined from 18,994 to 15,673—a decrease of 3321—a decline which has been going on steadily for a number of years, notwithstanding the imaginary ill effects of the licensing legislation. The offences of this class were actually 8165 more in 1870 than in the past year. A tabular return of the monthly arrests for drunkenness shows that in February—the period of the dock-labourers strike—the cases were only about half what they were in the following month.

Vigilans.—It does not appear to us that the matter to which you direct our attention calls for any comment. The report states that a gentleman was knocked down and run over by a cart in one of the streets in Dublin; and that Dr. Scriven, a leading homœopath, and Surgeon Porter "were quickly in attendance, and under their skilful treatment" the sufferer is doing well. The natural inference is that Dr. Scriven and Surgeon Porter were the two nearest medical practitioners, or the two whose assistance could be most quickly obtained, without any thought as to whether one of them was a homœopath. And it may be observed that there is a Dr. Scriven in Dublin who is a legally qualified practitioner. We do not know whether he is the Dr. Scriven mentioned. Continued conjoint attendance under the circumstances described would be another matter.

Indian Malachite.—The enormous sale of the mixture, which, under the title of "Indian Malachite," has been dispensed by "Madame Enault" at Birkenhead and elsewhere, is only one of the most convincing proofs of the truth of the saying that people love to be deceived. There are many millions of people in England, and, as elsewhere, they are "mostly fools,"—according to "the Claimant," born to be the prey of the sharp-witted. The Honorary Secretary of the Liverpool Chemists' Association has had the curiosity to examine some specimens of the wonder-working fluid. It varies much in specific gravity, and in colour and smell. A proximate analysis gave the following as the composition:—Glycerine 12½ fl. oz., rectified spirit 12½ fl. oz., oil of cajuput 4 fl. dr., oil of cloves 1 fl. dr., oil of cassia 1 fl. dr., oil of peppermint 20 minims, aniline green 1 gr. At the selling price of from 1½ to 2 ozs. for two shillings, this composition is unquestionably of great value—to the vendor.

A Cheerful View of the Medical Profession.—A writer in one of our provincial contemporaries, in commenting on the case of Nowell v. Williams, and especially on the episode of Mr. Nowell's examination at the Midland Hotel, observes:—"This shows how easily a wise law can be evaded, and how worthless all official prescriptions really are. But it is said there is a second guarantee—the character of the medical profession. Here is an instance of the way in which we are apt to be deceived by an abstract term. There is no such thing in existence as a medical profession. It is what logicians call a concept of the mind. There are a number of men who practise medicine—that is all. Now, if we may eulogise an abstract term, and the ideas which gather around it, I should be ready to lavish unbounded admiration upon the 'medical profession.' Its object is one of the noblest of mankind. But we have to deal with the men who practise this profession, and men are pretty much the same in one profession as in another. Most of us can, no doubt, say with truth, that some of the best men we know are medical men, and it is also true that the character of their work, the liberal education it supposes, and the higher class of motives which are often called into play in the medical profession, insensibly help to mould those engaged in it into nobler than average types. But after all is said, it remains that they are men, and that in the medical, as in the clerical, and we even venture to add, as a bare possibility, in the legal profession also, there are some black sheep, in whom mere gain and gross selfishness override the better instincts of their calling. A chain is no stronger than its weakest link, and in the light in which we now have to view it, the medical profession is to be dealt with according to the proportion of virtue to be found in its least virtuous members."

COMMUNICATIONS have been received from—

Dr. JAMES, Edinburgh; Mr. JOHN BRILLAMY, London; Mr. J. HAMILTON CRAIGIE, London; Mr. CHAS. SPURWAY, Cheltenham; M. EMILIO N. CORRI, Paris; THE REGISTRAR OF APOTHECARIES' HALL, London; Dr. DAVID JOHNSON, Earl's Court; Mr. MORRIS, London; THE ACTUARY OF THE CLERICAL, MEDICAL, AND GENERAL ASSURANCE SOCIETY; Mr. W. M. PICKERING, Glasgow; Mr. J. T. W. BACOT, Seaton, Devon; Mr. J. J. MECHI, Tiptree Hall, Essex; THE HON. SECRETARY OF THE HARVEIAN SOCIETY OF LONDON; Dr. W. S. GREENFIELD, London; Mr. F. COPESTONE, Chester; Dr. E. I. SPARKS, Mentone; EDITOR OF "CITY PRESS," London; Dr. H. H. ALFRED NICHOLLS, Dominica, West Indies; Dr. ROBERT PERRY, Glasgow; Surgeon-Major KIDD, London; Mr. J. HALL, London; Sir THOMAS WATSON, London; Mr. R. LEIGH, Liverpool; THE SECRETARY OF THE ROYAL INSTITUTION OF GREAT BRITAIN; Professor Dr. JACOB HEIBERG, Christiania; THE REGISTRAR-GENERAL, Edinburgh; THE HON. SECRETARY OF THE SOCIETY OF MEDICAL OFFICERS OF HEALTH; THE HON. SECRETARIES OF THE METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION; THE HON. SECRETARY OF THE HUNTERIAN SOCIETY; Dr. JOHN GREENE, Friday Bridge; Mr. LEONARD W. SEDGWICK, London; Dr. TAYLOR, London; Mr. CHATTO, London; THE HON. SECRETARIES OF THE MEDICAL SOCIETY OF LONDON; Mr. JAMES CANTLIE, London; Mr. T. M. STONE, London.

BOOKS AND PAMPHLETS RECEIVED—

Psychological Medicine, by Dr. Bucknill and Dr. D. Hack Tuke—Royal Guide to the London Charities for 1879-80—Duncan's Clinical Lectures—How to Use a Galvanic Battery, by Dr. Tibbits—Notes on Fever Nursing, by James W. Allan—Family Medicine for India, by Moore—Meteorological Memoranda, by T. A. Compton, M.D., B.A., F.M.S.—Third Report of the Medical Superintendent of Yaws Hospitals—Inquiry and Examination of the Usual Signs of Dislocation of the Hip, by Oscar H. Allis, M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Louisville Medical News—Nature—El Siglo Médico—Imports and Exports—National Board of Health Bulletin—Archives of Dermatology—The Boston Medical and Surgical Journal—The Western Daily Press—National Anti-Compulsory Vaccination Reporter—The Indian Medical Gazette—Revista Médico Quirúrgica—Guy's Hospital Gazette—Weekly Return of Births, Marriages, and Deaths—The Veterinarian—Edinburgh Medical Journal—Revue Médicale—Boy's Own Paper—The Leisure Hour—The Sunday at Home—La Mortalidad Infantil—The Monthly Homœopathic Review—Archives Générales de Médecine—The Vaccination Enquirer—The Herts Guardian—The Cornish Telegraph—The Obstetrical Journal—Revista de Medicina—Glasgow Medical Journal.

APPOINTMENTS FOR THE WEEK.

December 6. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

8. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. (Microscopical Evening). Dr. W. R. Gowers—Microscopical Demonstration of the Diseases of the Spinal Cord; (the specimens will be on view at 8 p.m.). Mr. G. C. Coles will exhibit the Laryngo-Phantom.

9. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY (Ballot, 8 p.m.), 8½ p.m. Mr. H. Morris, "On Two Cases of Carcinoma of the Breast preceded by so-called Eczema of the Nipple and Areola." Dr. Thin, "On Eczema of the Nipple and Cancer of the Breast; the Nature and Mutual Relations of their Morbid Conditions."

10. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

HUNTERIAN SOCIETY (London Institution) (Council Meeting, 7.30 p.m.), 8 p.m. Dr. Herman will exhibit a specimen of Missed Abortion, and relate "A Case of Concealed Accidental Hæmorrhage." Mr. Rivington, "On Two Cases of Aneurism treated by Eschsch's Bandage."

11. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

HARVEIAN SOCIETY, 8.30 p.m. Second Harveian Lecture—Edmund Owen, F.R.C.S., "On Certain Practical Points in connexion with the Surgery of Childhood."

12. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

CLINICAL SOCIETY, 8½ p.m. (Council Meeting). Mr. Croft, "Analysis of Forty-five Cases of Excision of the Hip-Joint." Mr. R. W. Parker, "On a New Method of Excising the Hip-Joint." Mr. Pick, "On a Case of Sub-Astragloid Dislocation." Dr. Lediard will show a Case of Excision of the Hip-Joint in an Adult two years after the Operation.

QUEKETT MICROSCOPICAL CLUB (University College), 8 p.m. Meeting.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 29, 1879.

BIRTHS.

Births of Boys, 1320; Girls, 1210; Total, 2530.
Average of 10 corresponding years 1869-78, 2300·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	893	909	1802
Average of the ten years 1869-78 ...	814·5	827·7	1642·2
Average corrected to increased population ...	...	...	1757
Deaths of people aged 80 and upwards ...	...	...	59

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West ...	561859	...	9	17	...	9	...	1	...	2
North ...	751729	1	10	21	2	8	...	8	1	3
Central ...	334369	...	4	9	2	5	...	2	...	1
East ...	639111	...	16	22	1	7	...	5	...	2
South ...	967692	2	39	33	3	20	1	8	2	5
Total ...	3254260	3	78	102	8	49	1	24	3	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29·912 in.
Mean temperature ...	...	...	...	...	...	33·2°
Highest point of thermometer ...	...	...	...	...	...	41·2°
Lowest point of thermometer ...	...	...	...	...	...	22·0°
Mean dew-point temperature ...	...	...	...	...	...	30·3°
General direction of wind ...	...	...	...	...	...	N.E.
Whole amount of rain in the week ...	...	...	...	...	...	0·19 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Nov. 29, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Nov. 29.	Deaths Registered during the week ending Nov. 29.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		In Inches.	In centimetres.
London ...	3620868	48·0	2530	1802	41·2	22·0	33·2	0·67	0·19	0·48
Brighton ...	105608	44·9	55	44	39·4	27·8	33·3	0·73	0·03	0·08
Portsmouth ...	131821	29·4	74	39	...	...	...	...	...	...
Norwich ...	85222	11·4	56	36	...	...	...	...	...	...
Plymouth ...	74293	53·3	50	49	45·0	30·2	37·5	3·06	0·46	1·17
Bristol ...	209947	47·2	144	106	...	...	...	...	...	...
Wolverhampton ...	75100	22·1	52	37	40·6	24·9	32·8	0·45	0·16	0·41
Birmingham ...	388884	46·3	280	183	...	...	...	...	...	...
Leicester ...	125622	39·3	81	54	41·5	24·2	34·6	1·45	0·41	1·04
Nottingham ...	169398	17·0	121	88	42·7	23·0	34·6	1·45	0·42	1·07
Liverpool ...	538338	103·3	415	295	42·9	31·4	35·8	2·12	0·45	1·14
Manchester ...	361819	84·3	250	173	...	...	...	...	...	...
Salford ...	177849	34·4	134	83	...	...	...	...	...	...
Oldham ...	111318	23·9	85	46	...	...	...	...	...	...
Bradford ...	191046	26·5	114	63	40·9	28·0	35·0	1·67	0·42	1·07
Leeds ...	311860	14·5	212	160	43·0	29·0	36·5	2·50	0·42	1·07
Sheffield ...	297138	15·1	210	127	41·7	28·0	34·9	1·61	0·59	1·50
Hull ...	146347	40·3	115	79	44·0	26·0	34·9	1·61	0·68	1·73
Sunderland ...	114575	41·4	84	45	44·0	32·0	41·5	5·23	0·50	1·27
Newcastle-on-Tyne ...	146948	27·4	98	59	...	...	...	...	...	...
Edinburgh ...	226075	53·9	139	88	42·8	28·0	35·2	1·78	0·34	0·86
Glasgow ...	578159	95·8	352	185	44·5	29·3	37·4	3·00	0·00	0·00
Dublin ...	314666	81·3	170	189	46·2	30·5	38·8	3·78	0·39	0·99
Total of 23 Towns in United Kingdom	8502896	38·4	5821	4029	46·2	22·0	35·7	2·06	0·36	0·91

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·91 in. The highest reading was 30·05 in. on Tuesday evening, and the lowest 29·77 in. on Saturday afternoon.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

THE DIAGNOSIS OF DISEASES OF THE SPINAL CORD.(a)

By W. R. GOWERS, M.D., F.R.C.P.,

Assistant Professor of Clinical Medicine in University College;
Assistant Physician to University College Hospital, and to the National
Hospital for the Paralysed and Epileptic.

(Continued from page 577.)

THE spinal cord possesses centres situated in the lumbar enlargement which preside over the action of the bladder and rectum. They are probably complex reflex centres: that for the sphincter ani is the more simple, but the system of action of each is probably the same. In the wall of each viscus we have muscular fibres to expel the contents, and at the mouth a sphincter to prevent their continuous evacuation. The presence of fæces or air in the rectum, or of urine in the bladder, excites reflex contraction in the wall, and the pressure of the contents against the sphincter leads to its reflex relaxation. This process may be, to a considerable extent, influenced by the will, although we are still ignorant of the precise mode in which the voluntary influence is exerted. But if the volitional path in the cord is damaged above the lumbar centres, the will can no longer influence the reflex processes: as soon as fæces irritate the rectum, they are expelled by the reflex mechanism; as soon as a sufficient quantity of urine accumulates in the bladder, a reflex contraction of the detrusor and relaxation of the sphincter cause its escape. If the damage to the cord involves also the sensory tract, the patient is unconscious of the process. If the sensory tract is unaffected, the patient is aware of the action of the bladder or bowel, but cannot control it. It is often said that there is permanent relaxation of the sphincters, but this is true only when the lumbar centres are inactive or destroyed. In this condition, evacuation occurs as soon as fæces or urine enter; the urine escapes continuously instead of being expelled at intervals. But the difference between the two states of the apparatus is less obvious in the case of the rectum, because there is not such continuous entrance of fæces into the rectum as there is of urine into the bladder. We may, however, distinguish between the two states of the rectum by the introduction of the finger. If the lumbar centre is inactive, there is a momentary contraction, due to local stimulation of the sphincter, and then permanent relaxation. If, however, the reflex centre and motor nerves from it are intact, the introduction of the finger is followed, first by relaxation, and then by gentle, firm, tonic contraction. I have verified this by introducing an india-rubber cylinder instead of the finger, and registering the pressure on the cylinder by connecting it with a recording apparatus, and have found that the first relaxation is preceded by a very slight, brief contraction, and is followed by unbroken tonic contraction. The relaxation may also be readily produced by any impression on the mucous membrane of the rectum above the sphincter. In cases of gradual disease we may often trace the gradual loss of voluntary power over the process of micturition. In some cases this loss of power appears to be manifested as an inability, not to restrain, but to excite the action of the centre, and we have then a tendency to retention. Acute lesions are commonly followed at first by inaction of the centre, and later on by its uncontrolled reflex action. We have, then, at first continuous incontinence, afterwards retention (inaction of centre with unrelaxed sphincter), and ultimately intermitted incontinence (uncontrolled reflex action). We do not yet know how far subsidiary sympathetic centres influence and modify the action of the spinal centres, and some conditions are not easy to understand, but a large number are intelligible on the principles I have explained.

The conditions of the sexual organs depend on the integrity of the reflex loop to and from a special centre also situated in the lumbar enlargement. Disease of this centre, or of the nerves leading to or from it, abolishes sexual action. If the disease is higher up, this centre participates in the over-action of the reflex functions. It is, however, one of the superficial reflexes, the excitation being from the skin,

and it shares the excess of the superficial, rather than of the deep, reflexes, being especially intense when the conduction of sensation is impaired. Sexual power is affected, however, even in these cases, on account of the fact that psychical influences are essential for the due action of the centre.

The centres in the cord which influence the sympathetic and vaso-motor system of nerves are frequently affected in disease, and altered temperature, vascularity, and perspiration of limb result. In disease of the upper part of the cervical enlargement, especially in sudden lesions, hyperpyrexia may occur. But these symptoms at present are of little diagnostic importance, except when the disease is in the cervical region, and the vaso-motor change is conspicuous in the face. Then, if one side is affected, unilateral sweating and flushing are conspicuous, and are due to the fact that sympathetic fibres for the head arise in, or pass through, the cervical cord. In the same cases, the movements of the iris are impaired: irritation of the cervical origin of the sympathetic causing spasm of the radiating fibres (dilatation), paralysis of the sympathetic causing their relaxation (contraction of the pupil). In many diseases of the cord the pupils are very small, and the reflex action of the pupil to light is lost, but (as Argyll Robertson first showed) the pupils usually contract if an effort of accommodation is made. It is not certain that these phenomena depend directly on the disease of the cord; they are perhaps due to an associated degeneration in the centres for the movements of the iris in the upper part of the pons. In many cases the latter explanation is the more probable.

In this survey of the more important functions of the cord, and their derangement, we have passed in review the chief symptoms which guide us in diagnosis. One or two others, however, remain.

Pain, referred to the spine, is occasionally present in organic disease of the cord, but is more frequent in disease originating in the meninges or bones. But the frequency with which spinal pain is present in abdominal, especially gastric, disease, and in neuralgic affections, lessens its diagnostic value when it exists alone. It is probably no exaggeration to say that of one hundred patients who complain of spinal pain, in ninety-nine there is no spinal disease. In meningitis, acute or chronic, spinal pain is very frequent, and in organic disease of the bones of the vertebral column it is an almost constant symptom, and is combined with local tenderness. The same combination of local pain and tenderness is seen in some cases of neuralgic pain, "rachialgia." The distinction between the two is, that in organic disease there are indications either of displacement of the vertebræ or of changes in the cord.

A still more important group of pains are those which are due to the irritation of the posterior nerve-roots, in their passage through the vertebral foramina, through the membranes, or through the posterior columns of the cord. Other pains are due, apparently, in some cases, to irritation of the sensory conducting tract higher up the cord.(b) These pains are referred to the parts to which the sensory fibres are distributed, and have hence been termed "excentric pains." They may be dull pains, singularly resembling rheumatism, and constantly mistaken for rheumatism by the patients themselves and their medical attendants. The mistake is the more easily made, because other symptoms suggestive of spinal disease may be inconspicuous, and the rheumatoid pains in acute cases may be accompanied by febrile symptoms, and in chronic cases may be sensibly influenced by weather. In all cases persistent rheumatic pains should excite a suspicion of spinal disease, and watch should be kept for such symptoms as local loss of power, or alterations in reflex action. In other cases they are sharp darting pains, "like a flash of lightning and gone again," as they are often described by patients with locomotor ataxy, in which disease they are very frequent. The position in which these various pains are felt—legs, trunk, or arms—depends (when the nerve-roots are irritated) upon the seat of the disease—in the lumbar, dorsal, or cervical regions of the cord. Occasionally the irritation is felt, not as a sharp pain, but as a painful sense of tightness, as if a band were tied tightly around the limb or trunk; the "girdle-pain," as it is called. When there is transverse damage to the cord, at the lowest part of the healthy region there is a state of

(a) An Address delivered before the Medical Society of Wolverhampton, October 7, 1879.

(b) The latest physiological researches seem to show that the conducting tracts in the cord are not, as is commonly taught, entirely insensitive to local stimulation.

irritation of the sensory nerves, and this irritation (referred to the nerve-endings) causes the girdle-pain. When the nerve-roots are irritated by disease of the vertebræ, the pain is very intense, and is especially increased by movement. In cancer of the bodies of the vertebræ this pain is so severe that the disease has received the name of "paraplegia dolorosa."

Whenever there are excentric pains there may be hyperæsthesia or diminished sensitiveness, or both—sensation being absolutely lessened, but that which is felt being painful. Spontaneous sensations are also common, the various feelings comprehended under the terms "numbness," "pins and needles," "furriness," "formication," and the like. The significance of these, as suggestive of central disease, is commonly recognised, and of their more precise origin we are still ignorant.

Muscular spasm is conspicuous in many cases of disease of the spinal cord. It depends essentially on an excessive action of the motor centres, especially the reflex centres. Primarily, perhaps, it is due to "diminished resistance" within them, but ultimately the functional action (and underlying nutrition) of these centres is permanently altered. The motor centres are, as we have seen, not only parts of the reflex centres, but also the terminations of the path of voluntary impulse. Hence spinal spasm may be excited by peripheral impressions, or by attempts at voluntary motion. In some cases paroxysms appear to come on without excitation, especially during sleep. In sleep, however, the reflex action of the cord is very ready, and it is difficult to exclude slight reflex stimulation. As an acute symptom, spasm is almost confined to meningitis, and to some very rare forms of functional irritation. Meningitis apparently causes a direct intensification of the action of the motor centres. In chronic organic disease, spasm is usually a late symptom, of gradual development, and then its reflex character may often be distinctly traced. It occurs in cases in which the reflexes, and especially the deep reflexes, are in excess, *i.e.*, when the reflex loops are entire, and the cerebral influence is lessened by disease higher up, involving the lateral columns (motor path). We may observe in such cases the gradual development, first of excess in the deep reflex actions (increased knee reflex, ankle clonus), and then of spasm, until the degree known as "spasmodic paraplegia," or "spastic paraplegia," is reached. Any peripheral impression, superficial or deep—pinching the skin, for instance, or sudden muscular tension,—will excite spasm. The attempt to elicit the ankle clonus may cause such muscular rigidity that no clonus can be obtained. In most cases the spasm is extensor in character, and evidently depends on the reflex mechanism which assists in maintaining extension of the legs in the erect posture. In health, when we stand, the muscles are in a state of balanced contraction, largely reflex, the afferent impulses being derived from muscles and joints. In spastic paraplegia a similar but more intense extensor contraction is excited by the same posture of the limb. Flexed, it may be supple, but extend it passively, and as soon as it is straight the muscles become rigid, and it cannot again be flexed except by considerable force. It is just as when a clasp-knife is opened, as soon as the blade is fully extended it becomes rigid. So this has been called "the clasp-knife symptom." Frequently the spasm fixes for the time both legs to the pelvis, so that if one is lifted from the bed the other leg rises with it. The same extensor spasm occurs when the patient attempts to stand, and it often enables a patient to remain erect whose voluntary power would not enable him to do so were he not aided by the spasm.

In some cases, especially during sleep, flexor spasm predominates, and the hip and knee joints become strongly flexed. On what the difference in the form of spasm depends we do not yet know. Spasm, especially flexor spasm, was formerly regarded as evidence of "chronic meningitis," because acute meningitis is accompanied by spasm. In many of these cases, however, there is no evidence of meningeal disease.

Occasionally spasm occurs in violent paroxysms, first tonic, and then clonic, excited by slight peripheral impressions, and in some cases apparently spontaneous—the "spinal epilepsy" of Brown-Séquard.

Thus these spasmodic phenomena indicate integrity of the reflex loops and functional over-activity of the reflex centres. This over-action may be in acute cases the result of meningeal inflammation; in chronic cases it is the effect

of disease above in the lateral columns, the degeneration of which extends down to the lower centres, but does not, apparently, invade them. The gradual development of the over-action indicates that it is the result, in most cases, of changes consequent on this degeneration. The unrestrained reflex action gradually leads to what may be termed, if the expression is permissible, a functional hypertrophy of the centres. How far this is influenced by a condition of "irritation" propagated from above, we do not know, but I do not think that the assumption is necessary.

Simple rigidity of muscles, varying too little to be termed spasm, occurs also in some forms of disease of the cord, especially in cases of muscular atrophy (degeneration of the anterior cornua), and is due (according to Charcot) to simultaneous degeneration in the lateral columns. Fixed contraction of muscles occurs also in the antagonists of paralysed muscles, but now and then as a result of over-action from central disease. As a consequence of this the knees may become flexed or the heels drawn up. The latter form of rigidity is always associated with more or less general spasm in the limb—a most important distinction. Persistent contraction of the gastrocnemii, as part of general spasm of the limb, is sometimes seen in adults, but is more common in children.

We may now consider, briefly, how the symptoms which we have studied are grouped in diseases of various regions of the cord. Some lesions of the cord affect certain structures (white columns or grey matter) in a considerable vertical extent, the other structures being normal. Such affections have been called "system diseases." Others, again, are very limited in their vertical extent, and have been termed "focal" lesions. The latter may be limited to one structure, or may extend through a considerable transverse extent, even through the whole thickness of the cord—"total transverse lesions." The lesions which affect certain structures only, whether extensive system diseases or limited focal diseases, are called "partial lesions," and it is convenient to commence with these.

1. Disease of the antero-lateral white columns causes loss of voluntary power below the lesion, descending degeneration in the anterior and lateral columns (direct and crossed pyramidal tracts, especially the latter), and over-action of the lower centres. This over-action may be manifested only as excessive knee reflex and developed ankle clonus, or it may increase from this to spasm and rigidity—spastic paraplegia. There is no wasting unless the degeneration extends from the lateral columns to the anterior cornua. Then we have a combination of spasm and wasting in which, if the cornual degeneration proceeds, the spasm and rigidity may lessen as the degeneration advances. In disease limited to the lateral columns (at any rate, when the disease is limited to the pyramidal tracts) there is no loss of sensation or incoördination, and no interference with the nutrition of the skin. These symptoms of "spastic paraplegia" may arise from a primary degeneration in the lateral columns, limited thereto; but such cases are extremely rare, and in the majority the disease is a focal lesion more or less extensive at some level in the dorsal or cervical cord, and the degeneration in the lateral columns is secondary. The evidence of the latter form is afforded by the frequently sudden or rapid onset of the symptoms in the first instance (primary sclerosis being always gradual in onset), and the evidence which may generally be discovered that there has been at some time, or is in some region, damage which extends beyond the lateral columns. Descending lateral sclerosis, with secondary spasmodic phenomena in the limbs, may even result from damage to the motor tracts above their decussation—in the medulla, the pons, or the motor parts of the cerebral hemispheres. It occasionally results from bilateral damage to the surface of the brain during difficult birth.

2. In disease of the posterior columns there is interference with co-ordination without loss of power; excentric pains, impaired sensation, and diminution of reflex action, in consequence of the implication of the sensory roots. All these symptoms depend on disease of the root-zone of the posterior columns. Disease of the posterior median column gives rise to no known symptoms.

The posterior columns may be damaged by any pathological process: they are frequent seats of primary degeneration, and then give rise to the common form of locomotor ataxy. The symptoms of this disease usually present the

following order:—loss of the deep reflexes, pains, incoördination, diminution of sensation; loss of the superficial reflexes, occasionally interference with the nutrition of bones and joints.

There is no loss of motor power or wasting as long as the disease remains limited to the posterior columns. It may, however, extend forwards into the anterior cornua, causing muscular atrophy and weakness to be conjoined with the ataxy. Or the lateral columns may be affected at the same time as the posterior: we then have weakness as well as ataxy, but no wasting. The disease of the lateral columns causes, as I have just stated, increase of the deep reflexes, and this increase may thus co-exist with incoördination, the increased action of the reflex centres being so great that they are not arrested by the damage to the posterior roots (which is often, in these cases, slight). Thus we may have the anomaly of ataxy with excess of the knee reflex instead of its loss, and with the front-tap contraction obtainable, and even the ankle clonus.

An important fact to remember regarding the posterior columns is their proneness to degenerate: they recover less readily, and degenerate more readily, than any other part of the cord. A lesion in one spot may set up a degeneration which ultimately involves them in their whole extent. Damage affecting the whole thickness of the cord may pass away from the rest, and persist in the posterior columns, and even spread there. In such a case we have ataxy succeeding loss of power. Strength returns, incoördination remains.

3. The anterior cornua contain the motor nerve-cells, which, as I have said—(1) influence the nutrition of the motor nerve fibres proceeding from them, and consequently that of the muscles; (2) constitute the terminal link in the path of the voluntary impulse from the brain to the muscles; (3) form part of the reflex loop, probably also of the reflex centre, to which those muscles are connected.

Hence we have, as the result of disease of the anterior cornua—(1) degeneration of the motor nerves and wasting of the muscles; (2) loss of voluntary power, *i.e.*, paralysis of those muscles; (3) interference with or arrest of the reflex actions in which these muscles take part.

The extent of these symptoms, whether they are unilateral or bilateral, affect many muscles or few, will depend strictly on the extent of the disease in the spinal cord.

Of the three symptoms the muscular wasting is incomparably the most important. Paralysis may result from disease elsewhere in the motor tract, *i.e.*, disease of the lateral column higher up. Loss of reflex action may depend on disease elsewhere in the reflex loop, *i.e.*, disease of the sensory fibres in or outside the cord. But muscular wasting is due only to a lesion of the motor cells, or to a lesion of the nerves cutting the muscles off from the influence of these cells. In most cases we are able to exclude the latter without difficulty: the state of muscular nutrition comes thus to be of the highest importance as indicative of the state of the anterior cornua of the cord.

Disease of the anterior cornua is often combined with disease of the lateral (pyramidal) columns similar to the descending degeneration. Charcot believes that in these cases the degeneration in the lateral column is primary, its symptom, muscular rigidity, preceding the symptom of the cornual disease, muscular wasting, and he terms the affection "lateral amyotrophic sclerosis." I believe, however, that this position will need reconsideration, and that the degeneration in the lateral columns is, sometimes at least, secondary to, or simultaneous with, the disease in the cornua. It often spreads, however, beyond the fibres related to the degenerated cornua, and so may cause weakness and spasm in the limbs below the seat of the muscular atrophy. Thus we have wasting in the arms, and weakness with spasm in the legs, and even, as I have seen, wasting in the shoulder-muscles, and weakness without wasting in the hands.

Certain lesions may damage the motor tracts slightly, and impair conduction in a peculiar way, rendering it apparently unequal in different fibres. As a consequence the muscular action is unequal in different muscles, and instead of a balanced co-ordinated movement we have an unbalanced jerky movement. This is seen especially when irregular islets of sclerosis affect the cord—disseminated or insular sclerosis—and according to the researches of Charcot it appears that this irregular conduction is the result of the unequal wasting of the medullary sheaths, the axis-

cylinders remaining. A precisely similar symptom may result from pressure on the motor tract—as by a growth. Not rarely this "disseminated" or "insular" sclerosis, in one region, is combined with a system-degeneration in another. An occasional combination, for instance, is the jerking movement (from cervical insular sclerosis) in the arms, and weakness with spasm (from lumbar lateral sclerosis) in the legs.

4. A total transverse lesion of the cord, at any level, however limited in vertical extent, separates all parts below the lesion from the brain, and hence, so far as will and perception are concerned, produces the same effect as if the whole of the cord below the lesion were destroyed. A section across the cord in the middle of the cervical enlargement, for instance, paralyzes all parts below the neck. Hence the extent of the paralysis indicates only the upward extent of the lesion. This is also indicated by the position of the *girdle* in, or zone of hyperæsthesia, which is due to the irritation of the sensory roots in the lowest part of the upper segment—an important indication when the lesion is in the dorsal region, where the precise limitation of motor weakness may be recognised with difficulty.

The extent downwards of the lesion, its vertical extent, is thus not indicated by the impairment of its conducting functions, the motor or sensory paralysis; and to learn *this* we have to examine the functions of the cord as a central organ, and to ascertain how far they are impaired in the paralysed region—to examine especially muscular nutrition and reflex action. The state of muscular nutrition and irritability indicates how far the anterior cornua are impaired, and whether they are involved in the primary lesion or are affected secondarily, according to the principles I have already explained. The integrity of reflex action indicates the integrity of the reflex loops, and the study of the superficial reflexes of the trunk is especially instructive in this respect. Excess of reflex action indicates over-action of the reflex centres, and marked excess of the deep reflexes suggests the existence of a descending degeneration in the lateral columns.

(To be concluded.)

LESIONS OF THE PERITONEUM IN DRUNKARDS.—Prof. Leudet, of Rouen, read a paper on this subject at the recent Montpellier Congress, and arrived at the following conclusions:—1. Persons who abuse alcoholic drinks may become the subjects of ascites, which comes on without marked symptoms and without prior notable derangement of health. 2. Such ascites is susceptible of prolonged arrest, and perhaps even of a definitive cure. 3. The chronic peritonitis of drinkers may come on slowly without any grave symptom. 4. It seems frequently to be the result of a slow irradiation of lesions of the digestive canal, such as gastric cirrhosis, with or without ulceration, or of enteritis. 5. Chronic peritonitis may induce inflammatory recrudescences of the peritoneum, general or partial effusions, or intra-peritoneal hæmorrhage.—*Gaz. Hebdomadaire*, December 5.

INTRAVENOUS INJECTION OF MILK AND OF SUGAR.—In a paper giving to the Société de Biologie an account of a series of experiments which they have undertaken, Drs. Moutard-Martin and Charles Richet arrive at the following conclusions:—1. Injection of a large quantity of milk kills by bulbar anæmia. 2. The introduction of the lactic ferment into the veins of an animal seems to produce no effect. 3. Injection of concentrated solutions of sugar kills by bulbar anæmia. 4. Milk injected into the vascular system produces no immediate action, either on the pulmonary circulation, on muscular contractility, or on the vitality of the cerebral nervous centres or the nerves. 5. Sugar injected into the veins is rapidly excreted by the urine, and induces an intense polyuria and an abundant intestinal secretion. 6. The symptoms ensuing on large injections of milk are vomiting, polyuria, movements of deglutition, and later, sharp cries, disturbance of the respiratory innervation, contraction of the muscles of the limbs, and arrest of the action of the heart. 7. At the autopsies of animals killed by the injection of milk or sugar there is found very marked intestinal injection, and subendocardiac ecchymoses are of constant occurrence. 8. In a therapeutical point of view the injection of milk is a useless and dangerous operation, and one which should be absolutely proscribed.—*Gaz. Méd.*, December 6.

ORIGINAL COMMUNICATIONS.

ON THE TEMPERATURE IN RELAPSE OF TYPHOID FEVER.

By J. PEARSON IRVINE, B.Sc., M.D., F.R.C.P. Lond.,
Assistant-Physician to Charing-cross Hospital, etc.

(Continued from page 607.)

THE interval ended, relapse sets in. What are its general characters, its duration, and most critical periods as regards temperature? Many other questions suggest themselves, and have, indeed, been casually considered in the reports I have given.

The uncertain duration of "intervals" has been dwelt upon; and we may at once say that the duration of relapses is also uncertain. Accidents and intercurrent relapses especially cause modifications; but taking twenty-nine instances of relapse out of the above series—instances observed from first to last, and where complications could be positively excluded, and where treatment, though it may have helped to carry patients through their illness, was never directed to "cutting their disease short,"—the average duration of relapse was about twenty to twenty-one days. Dr. Murchison found the average duration of relapse, as I have said, about fifteen days; and I am sorry that I have not been able to find a full record of this eminent physician's cases. It seems to me most essential that in considering duration of relapse—just as in primary typhoid—the fact of frequent complications should never be lost sight of; and on this account many instances are excluded from my series in an attempt to make an approximative estimate of the duration of typhoid relapse as determined by the temperature of the body. And though remembering that such observers as Sir William Jenner, Dr. Murchison, and others are not quite agreed as to the duration of ordinary and uncomplicated primary typhoid, I submit with confidence the following opinion—that a relapse of typhoid fever will more nearly approximate to twenty-one days' duration the more simple it is. Some relapses do not last twenty-one days, and some last more than this number of days. For some appear to be cut short at particular stages, others seem to be prolonged inordinately by outside circumstances. In all acute specific diseases we meet with similar phenomena, and it is only an acquaintance with the usual course of events which helps us to avert mischief—nay, even catastrophes. Variety prevails in primary typhoid, its relapses and its surroundings, in typhus, in small-pox, and scarlet fever; all these diseases are apt to be confounded, not only amongst themselves, but with entirely separate diseases; and he is a wise physician indeed who makes no mistakes in the midst of the various complications. We are bound, in considering the duration of typhoid relapse, as judged by its temperature in particular, to remember the clinical difficulties alluded to; but I am persuaded that the careful use of the thermometer enables us to clear up many doubts (looking merely at duration of disease).

It is almost certain that, where two or more relapses of typhoid occur in a patient, the later relapses are, if no accident occurs, shorter than the preceding ones. This is in accordance with the opinion given, that primary relapse lasts about twenty or twenty-one days, while a first typhoid attack continues through twenty-eight days. Here, again, I would say that the exact duration of an uncomplicated simple primary attack of typhoid fever has exercised the minds of the most able clinicians; and am bold enough to re-advocate the statement that confusion of relapses with primary disease has greatly increased the differences of opinion which prevail as to the duration of primary typhoid. The duration of relapse is, of course, most materially affected by accidents; death may occur in any stage; an intercurrent relapse may appear to prolong it, as may any complication—for example, pneumonia, the occurrence of abortion, or the slow healing of old intestinal ulcers. Let us consider the course of relapse of typhoid fever which follows a "typical" progress, and is not hampered by complications, intercurrency, or other difficulties. In the great majority of the cases recorded above there was, as has been pointed out, a clear, though often a small, interval between primary disease and relapse. Without going into statistics

it may be said that the cases prove that, as a general rule, the interval which precedes a relapse is marked by subnormal temperatures. It would be tedious to quote particular cases, for examination of the charts must more readily than pages of text convince the reader on this point.

The question is, How does relapse, as judged by the thermometer in particular, declare itself? In most cases the recurrence of the disease is characterised by an unexpected and a continuous elevation of temperature. The fever begins suddenly, and though remissions may occur daily, it increases until it reaches its height on the fifth evening of relapse. The remissions are of little diagnostic importance (so far as relapse, considered alone, is concerned), for we should never forget that lesions left by the original disease may modify not only temperature, but the general symptoms met with in relapse. Remembering these facts, I think it useless to attempt any definite account of the daily remissions met with in many cases of typhoid relapse. But I most positively maintain that, where complications are absent from first to last, the highest temperature in relapse is met with on the fifth day. From this day the temperature maintains nearly the same level (with morning remissions varying in degree) until the eighth or ninth day, when it falls decidedly and, beyond all doubt, critically. I am certain that it is, diagnostically and prognostically, most important to observe from hour to hour the temperature in relapse during its eighth and ninth days. My charts support this view, and to them I must refer in confirmation of what is advanced. The fall on the eighth or ninth day of the disease has struck me as being of most favourable omen, and the fatal cases by the absence of this fall will bear out, if examined carefully, the truth of the observation. On the eighth or ninth day the temperature may be found six degrees, or even more, below its previous level, or its fall may be less decided—not more than two or three degrees. But in the absence of hæmorrhages or other accidents, which speak for themselves, I look upon it as a most valuable and favourable prognostic indication.

This critical fall simply marks a stage of the disease, and not its termination. A rise of temperature always follows—as in every instance recorded—so unmistakably as to prove that the eighth-ninth days' temperature in typhoid-relapse has a critical significance. From the ninth day a third stage of the disease begins with a new accession of fever, as examination of many of the charts will show. But in favourable cases these accessions have characters which may be viewed with satisfaction. On the tenth day, for example, the temperature may run up almost to previous levels; but afterwards there are gradual daily remissions of fever—great or small, but constant—until the disease is at an end. In dealing with Case 7 I have dwelt upon these three stages met with in typhoid-relapse. The third stage is, like others, most difficult of description, and again I depend more on the charts which are published than on words. An examination of the charts must show that from the day on which the temperature attains its height in the third stage there will be, in cases going on well, a gradual fall of temperature both morning and night—in short, a steady abatement of fever, which ends in subnormal level on or about the twenty-first day of relapse. I am so much impressed with the temperature-curves as indicative of three stages in typhoid relapse (possibly empirical stages, but still of much practical value) that I ask the reader's careful consideration of these stages. It is most difficult to satisfy oneself and others as to the course typhoid fever and its relapses pursue. I admit, nay, urge, the difficulties met with in a consideration of the clinical history of typhoid fever and its sequences.

But I agree with Wunderlich, whose observations on the acute specific diseases gave to him a well-earned reputation, that relapses of typhoid fever teach us more than primary attacks of the disease. Wunderlich regarded relapses as typical examples of enteric or typhoid fever. At the time when he made his observations with the thermometer only a small minority of the profession understood what was meant by typhoid-relapse. The confusion of diseases was added to the confusion of names; the great generalisations, established especially by Sir William Jenner, were but little appreciated or understood (as happens fortunately for the progress of scientific and clinical medicine in almost all its branches); the occurrence of typhoid-relapse was scarcely taught, and if taught only incidentally; and most able physicians referred to the chances of relapses of enteric fever, but did

not insist on their frequency, much less on the occurrence of two, three, or four relapses in a single case. I have proved by temperature-charts that even a fourth relapse may occur in typhoid fever, and am emboldened to ask a consideration of these charts. The work which Wunderlich has done in typhoid and other specific diseases claims the greatest praise, but I venture to think that this distinguished observer has not considered all the simple sequelæ of typhoid fever, and their especial bearings on the occurrence of relapse, which I maintain is so common. I am strongly of opinion that sequelæ and relapse in this disease have been, and are still, confounded—not occasionally, but regularly in both hospital and general practice.

The assertion that three stages are met with must mean, of course, that critical periods should be looked for. I have said enough to show that, in my experience, it is most important to note particularly the temperature on the fifth day of relapse, on the eighth or ninth day, on the fifteenth day, and on the twenty-first day of the disease. I repeat that these days in the disease are to a certain extent critical, and in support of the opinion I ask attention to the cases recorded—attention to them in general, and not in particular.

The stages of typhoid-relapse are no more certain than those of other acute specific diseases. The difficulties of variety constantly present themselves, and the more constantly the more the course of the acute specific diseases is studied. The “accidents” of relapse are probably more numerous than those of the primary disease; but the careful use of the thermometer is one of the best safeguards against mistakes from such accidents.

These accidents are exceedingly frequent, and as important as they are frequent; they have been alluded to in the consideration of individual cases, and I shall now dwell upon them as briefly as possible. But I desire especially to allude to recrudescences and intercurrent relapses before considering particular complications. Relapse, as has been said, may set in during relapse—may interrupt it, in fact—and may cause much doubt. Several examples have been recorded in these papers. “Intercurrent relapse” is obscure and uncertain, but that it can modify the temperature of ordinary typhoid or of ordinary relapse is beyond question, and its clinical significance is of great value to the physician who has to guide a typhoid fever patient through a variety of dangers. The chart of *Case 10* affords an excellent illustration of intercurrent relapse.

(To be continued.)

CASES OF CALCULUS EXTRACTED FROM THE FEMALE BLADDER.

By E. L. HUSSEY, F.R.C.S.

Case 1.—A young woman, of strumous aspect, eighteen years of age, lately apprenticed to a dressmaker, was admitted on May 12, 1858, into the Radcliffe Infirmary, under my care, with incontinence of urine, caused by a large calculus in the bladder. The calculus had been detected for the first time the day before admission. She had been in the Infirmary in January and February, 1855. I have been informed that the only symptoms of which she complained at that time were a greater frequency of the call to empty her bladder. Lately it had become so painful for her to sit long at work, that she had been obliged to give up dressmaking. She applied to Dr. Freeborn. He introduced a silver catheter, and detected a large stone in the bladder.

The catamenia appeared the day after her admission; and treatment was delayed on that account.

On the 18th she was placed under chloroform. A three-branched dilator was introduced into the urethra. There was not more than an ounce of urine in the bladder; and this escaped at once. The stone was struck with the point of the instrument as it entered the bladder. The blades were expanded, and on introducing my finger a large calculus was felt. It was seized with a strong pair of lithotomy forceps, and brought almost to the orifice of the urethra, when it slipped from the grip of the forceps, and fell back into the bladder. By pressing firmly above the pubes, where the calculus could be felt, it was kept steady, and a firmer hold taken with the forceps. When brought again to the

orifice of the urethra, so that its large size could be seen, and an opinion formed of the laceration likely to follow from perseverance in the attempt to drag it through, I made an incision less than half an inch in length, in the mucous membrane, dividing it directly upwards, toward the symphysis pubis in the mesial line. By continuing the dilatation gradually, moving the forceps from side to side, the parts yielded, and the stone was extracted. It was observed during the operation that the soft parts yielded more readily by raising the patient's knees toward the abdomen, as in the position chosen for lithotomy in male subjects.

The calculus weighed 3iij. ðij., and was composed of lithic acid. It was a thick oval in shape, or rather in the form of a flattened heart. In its long axis it was two inches and six-tenths, in its short axis one inch and eight-tenths, and one inch and four-tenths in thickness. Its greatest circumference was seven inches and a quarter; its short circumference was five inches and an eighth.

There was rather free oozing of bright florid blood from the inside of the bladder during the operation and afterwards.

A draft of liq. ammon. acet. with some vinum opii, some antimony, and sp. etheris nitr. was given at bedtime.

The girl slept all night. The urine escaped freely, without her being able to retain it.

On the 25th I directed her to bathe the parts frequently with cold water. On the 29th she was able to retain the urine during the day, but a little escaped at night.

June 9.—The nurse tells me that less of the urine escapes. Soon after this date she returned home by her own wish.

She was readmitted in July, and she remained a month in the ward.

She was able to hold a teacupful of urine during the day. She can tell by her own feelings when it becomes necessary to empty the bladder, and she has a vessel ready for the purpose. It escapes at night during sleep. Her bowels were generally confined. The catamenia had not appeared since the operation. I prescribed a shower-bath daily, and ferrum tartaratum, with dec. aloes comp. twice a day.

Dr. Freeborn has since informed me that she recovered perfectly, and that she regained the full control over the bladder. She afterwards married; and she died in London in 1873 with some internal disease.

Case 2.—A girl, fourteen years of age, rather below middle height and size, complained that she was not able to hold more than a teaspoon of urine in her bladder, and that she suffered much pain after passing the urine. She has suffered more or less from these or other symptoms of irritability for five years.

She was admitted June 2, 1858, into the Radcliffe Infirmary under my care.

The existence of a calculus in the bladder having been ascertained by sounding, I proceeded to remove it on the 9th.

The orifice of the urethra was too small to allow of the introduction of the same dilator which I had used in the former case. A pair of common forceps was therefore passed into the urethra, and, upon allowing the blades to expand, I passed the dilator into the bladder between the expanded blades of the forceps, and the forceps were then withdrawn. The branches of the dilator were opened; and, on introducing my finger into the bladder, the calculus was felt. It was seized with a pair of lithotomy forceps, and extracted without difficulty. There was rather free oozing of blood, which ceased after she was put back in bed.

The calculus weighed 3vss., and was composed of lithic acid, coated with phosphates.

A draft of liq. ammon. acet. with vini opii ℞xv. was given at bedtime. She slept well all night.

June 15.—She is able to retain the urine during the day, but it escapes at night.

She was discharged on the 30th. She was able to retain the urine completely during the day, but some escapes during sleep.

I saw her again on July 24. She told me that less urine dribbled away at night.

From members of her family I have since heard that she recovered completely from the effects of the operation, and that she died about ten years afterwards under some other complaint.

Case 3.—A married lady, forty-six years of age, had suffered for two years from irritability about the organs of

the pelvis. She was much wasted, and depressed in spirits. She had been treated by different medical practitioners, and lately she had paid repeated visits by railway to a practitioner at a distance. At each visit caustic was applied to the uterus under the belief that that was the organ affected. She found after each visit that her sufferings were aggravated by the journey rather than relieved by the treatment. Her father and her father's uncle had both been the subject of calculus.

In November, 1869, Mr. Cresswell, of Wolverhampton, then of Steeple Aston, was consulted upon her case. He gave the opinion that she was the subject of a large calculus in the bladder. At a subsequent visit he introduced a silver catheter, and assured himself of the fact.

On the 18th I was summoned, in consultation with Mr. Cresswell, for the purpose of removing it. A three-branched dilator was introduced into the urethra, and the blades were opened sufficiently to allow me to pass my finger into the bladder, but I could not at first feel the calculus. The bladder was then syringed with warm water. Upon introducing my finger a second time the calculus was felt, and seized with a pair of lithotomy forceps. The urethra yielded slowly to the process of dilatation. When the calculus was brought to the orifice, I applied a second pair of forceps, so as to obtain a firmer hold of it. The calculus broke in the passage before it was completely withdrawn. It was 3ij. in weight, and was composed of phosphates.

A glass of hot brandy-and-water, with spice and sugar, was administered by our direction before we left the house. The subsequent treatment of the case was left to Mr. Cresswell.

The lady made a rapid and complete recovery, with perfect control over the bladder. She soon became stout and strong, and resumed her household duties. She was in the enjoyment of the best of health when Mr. Cresswell saw her, two years after the operation.

Remarks.—In all these cases the dilatation was effected by the same instrument—the three-branched dilator made by Messrs. Weiss. No inconvenience followed from the use of it, or from the mode in which it was applied.

An instrument in some respects like it is shown in Dionis's "Course of Chirurgical Operations," 1710, Fig. xx., page 168; it is described in the text as a speculum matricis. Oxford.

DISLOCATION OF TIBIA FORWARDS AT ANKLE-JOINT;

FRACTURE OF INTERNAL MALLEOLUS AND OF TIBIA AND
FIBULA AT JUNCTION OF MIDDLE AND LOWER THIRDS.

By H. C. ROWBOTHAM, M.R.C.S. Eng.

ON October 2, K. G., aged twenty-two, a tall, well-developed farmer, was riding; his horse ran away with him, and fell on its side with the rider's left leg underneath. He was carried into his house, and I was summoned, and saw him an hour after the injury. The lower part of the left leg was swollen and bruised; the foot was extended and abducted; it was shortened from the toes to the ankle; the heel was elongated; the external and internal malleoli were distinct and in their natural position; between them in front was a well-marked prominence; palpation revealed this to be the inferior extremity of the tibia displaced on to the head of the astragalus; an interval could be felt between the internal malleolus and the lower end of the tibia. Patient could not effect any movements in the ankle-joint, but the foot could be readily flexed, extended, and rotated by the hand. These movements, however, took place at about the junction of the lower and middle thirds of the leg; they produced crepitus, and caused patient much pain in this situation. Patient complained of great pain in his leg and of a sensation of numbness in his toes; the muscles of the leg were rigid. An attempt was made to reduce the dislocation, but failed. The patient was now anaesthetised with chloroform. The leg being flexed on the thigh and held so by an assistant, the foot was grasped at the heel and instep, and strong extension was made in the axis of the limb; at the same time the assistant pressed the projection backwards. After several efforts the dislocation was reduced; the limb was placed upon two lateral splints and laid between sand-bags. When the patient recovered consciousness, he stated

that with the exception of some soreness he was free from pain. At night a hypodermic injection of a quarter of a grain of morphia was administered, and he passed a fair night. In the morning he complained of some pain and starting, but there was no heat about the joint, and patient appeared to be doing well.

October 9.—He stated that he felt comfortable; the parts were in good position. The splints were removed; the swelling had subsided. There was much discolouration from extravasated blood, and there was a large bleb; this was dressed with lint soaked in carbolised oil, and the limb was put up in plaster of Paris. On the day following, patient was allowed to walk with crutches, resting the injured leg in a sling.

23rd.—The plaster bandage had become loose; it was removed. The parts were in good position. Another plaster bandage was applied, and on the following day patient was able to walk with a stick.

November 21.—Plaster bandage removed. There was no deformity; the bone was firmly united. The movements of the ankle-joint were unimpaired, and patient was able to walk with some stiffness, but no pain.

Remarks.—The points of interest in this case are—(1) the rarity of the injury, (2) that notwithstanding the severity of the injury the plaster-of-Paris bandage enabled patient to get about a week after the accident (*i.e.*, as soon as the plaster bandage could be applied, the swelling having prevented its earlier application). This was a matter of great importance to the patient, as the accident occurred at the commencement of his harvest.

Melbourne, Derby.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

VILLOUS SARCOMA OF BLADDER—SECONDARY DEPOSITS—DEATH.

(Under the care of Mr. HEATH.)

[For the following notes we are indebted to A. Q. Silcock, M.B., B.S. Lond., Surgical Registrar to the Hospital.]

Sarah F., aged thirty-nine years, a servant, was admitted on April 26, 1879. She had been a general servant in attendance on some maiden ladies. Seven years ago, while lifting one of them from bed, she apparently ricked her side, and from that date until admission had at different times passed blood with her urine. This condition had been relieved or stayed at times by medicine, etc., prescribed by a surgeon whom she consulted. At the early part of this year she took to her bed, but up to that time she had been fulfilling her duties. She had not been able to lie on her right side for about six months; and in turning from one side to the other she suffered pain of an aching character in the abdomen and extending down the thigh, but located altogether on the left side. A swelling on the dorsum ilii was first noticed in February last. This has increased steadily in size, and has had iodine and ointments applied to it. Her general health had not been very good, and there was a family history of consumption. She first menstruated at the age of sixteen years, and the uterine function had always been normal since.

On admission, there is a tumour over and apparently attached to the left innominate bone. This swelling is oval in shape, having a long diameter of fifteen centimetres and a short one of twelve centimetres; it is raised about three-quarters of an inch, in its most prominent part, above the level of the skin. Its upper end is just below the crest of the ilium, and it extends posteriorly to the posterior inferior and superior iliac spines, anteriorly to within twelve centimetres of the anterior superior spine. The skin over it is non-adherent and normal in appearance, and the superficial veins coursing under it are considerably enlarged. In consistence the tumour is smooth, elastic, giving sense of fluctuation, and has an ill-defined border. It is painful spontaneously and after manipulation, but the pain is not of a throbbing character, and there is only slight tenderness on pressure; there is no pulsation in the swelling, either inherent or communicated. Nothing abnormal can

be made out on examination of the abdomen, but there is a sense of fulness and some pain on pressure just to the right of the middle line and on a level with the anterior superior iliac spines. Patient complains of a constant desire to mic-turate, but in doing so experiences no pain or difficulty. The urine is strongly ammoniacal, specific gravity 1015, highly albuminous, of bloody colour, turbid, and filled with ropy mucus; on microscopic examination, epithelial blood and pus cells and phosphatic crystals are seen. Patient was put under the influence of ether, and the urethra was dilated with the four-bladed dilator and the finger. The right wall of the bladder was then found to be occupied by a villous growth situated on a hardened base. A quantity of sabulous matter was present in the bladder. Some of the new growth was torn away, and on examination under the microscope presented the ordinary features of a villous growth, the hardened base being made up of round cells rather larger than ordinary granulation cells. The tumour over the right buttock was aspirated, and blood with adipose tissue and round cells similar to what were found in the bladder were brought away. The following notes show the further progress of the case:—

April 29.—Tongue is much furred and foul; the bowels somewhat confined. Sleep is very much disturbed, and patient complains of considerable pain of an aching character. Her appetite is fair.

May 1.—She states that she feels a little better, and seems to be in less pain. She is very drowsy, and is continually dozing. The bladder is to be washed out twice daily with a quinine lotion—a grain to the ounce; two ounces to be injected each time. Temperature 100°; pulse 108, feeble. The urine remains as before.

3rd.—Her general condition seems to be somewhat improved. She has a sedative draught every night, and sleeps with its aid. Temperature 100·2°; pulse 120, very small and incompressible. The bowels are open; urine remains unaltered.

5th.—Patient has passed a bad night, and she is looking pale and cachectic, and is in a very depressed condition. The tumour appearing on the dorsum ilii is evidently pressing on the sciatic nerve, and she complains of excruciating sciatica; the growth in the bladder is also giving great pain, and subcutaneous injections of morphia are being given twice daily. The urine is rather more albuminous if anything. Temperature 100·4°; pulse 132, very feeble and incompressible.

10th.—Pain of a continuous and incessant character at the back of the thigh and down the left leg still worries the patient. She complains greatly of thirst. The bowels are regular, and she takes food fairly well. The bladder and urine are unaltered in condition. Temperature 99°; pulse 108, regular, soft and incompressible. She still takes the sedative draught at night, and has frequent subcutaneous injections of morphia.

15th.—The tumour over the dorsum ilii is perceptibly larger. Her general condition is much the same as last described.

17th.—She complains much of sickness and vomiting, and cannot retain her food. She is gradually getting weaker, looks more cachectic, and is generally depressed. Her urine presents the same characters as previously noted, and in other respects her condition and treatment remain unchanged.

21st.—Patient is gradually sinking, and is now in a somewhat delirious condition. She looks pale, haggard, and cachectic. Temperature remains stationary at the normal. She has sordes on her lips, and the tongue is extremely foul. Is drowsy, but wakes up by fits and starts, and is apparently in considerable pain. She takes nourishment fairly. Bowels regular.

26th.—Patient died this morning, apparently worn out. For the last eight days all her motions have been passed involuntarily, and she has been incoherent and wandering.

Post-mortem Examination, thirty hours after Death.—The body is emaciated; rigor mortis well marked. There is slight purple discolouration of posterior surfaces, and there are blue points in the skin of the arm, indicating the position of the punctures for hypodermic injections. Thorax: The heart, pericardium, and great vessels are healthy. The left lung is adherent throughout to the pleura by old adhesions. At its apex there is a mass about the size of an egg, apparently tubercular, in various stages of caseous degeneration, and several other nodules are present; the lower lobe

is more or less congested and collapsed; elsewhere the lung structure is normal. The right lung is also adherent, especially at apex, where hard masses are felt as on other side. These prove to be tuberculous masses undergoing caseation in parts, and breaking down into cavities, some as large as a walnut. The inferior lobe is collapsed, congested, and also infiltrated with what is apparently tubercle. Abdomen and Pelvis: There are no signs of peritonitis, recent or old; there is considerable distension of large and some of small intestine; there is a small amount of fat in omentum. The bladder is abnormally resistant to the touch, and presents a fulness at the right side and upper part; it presents two lobes—a small one above, which is sessile and close to the ramus pubis, and another larger and more diffuse below. On the left side the bladder is less resistant, but reaching from its side, extending upwards and outwards for about two inches, is a semi-fluctuating tumour about the size of a hen's egg, crossed in its lower third by the round ligament of the uterus. The fundus of the bladder and the uterus are apparently quite clear of new growth. There is no trace of enlarged glands above or in the true pelvis. In examining the left ureter, the bladder tumour being opened, is found to contain some curdy grumous fluid, and it is seen to be in close contact with the obturator nerve and with the internal iliac vessels. On drawing the bladder backwards another swelling is seen on the left side in close relation with the obturator internus muscle; it is about the size of a large orange, and fluctuates freely into Scarpa's triangle, and does not communicate in any way with the tumour already described or with the bladder. (This swelling was not diagnosed during life.) On dissecting more deeply into the pelvis, a third separate swelling is found, over which is stretched the sacral plexus; this fluctuates freely and communicates with the tumour noticed during life over the dorsum ilii, but is not connected with either of the other two swellings mentioned. On opening the bladder its inner surface is found to be covered with villous processes coated with phosphatic deposits. On cutting into the tumour described on the left side of the bladder, the knife enters into a large new growth, soft in consistence, in part diffuent, and containing a fluid resembling coloured cream; this growth has apparently partly undergone caseous degeneration. The secondary tumour outside the bladder is of the same material, and the growth described in Scarpa's triangle is found to have involved part of the ascending and the whole of the descending ramus of the pubes, and also to have reached as far as the tuber ischii, which is destroyed by it. In structure it is soft and pulpy, with numerous hæmorrhagic patches. The left sacro-iliac articulation is quite loose; the upper part of the coccyx and the outer third of the left side of the sacrum are destroyed. The growth further extends to the level of the third lumbar vertebra and into the muscular substance of the loin. Its external characters are as noted, but part of it is almost diffuent, and far more hæmorrhagic than the other growths. It is fairly bounded and invested by a tough, fibrous envelope. Examined microscopically, the new growths were found to be medium-sized, round-celled sarcomata, and the villous growth in the bladder rested, as already described, on a base of round cells. The kidneys were very unequal in size, the left being small and converted into a flaccid bag consisting of the dilated pelvis and ureter. The lower part of the left ureter was involved in the new growth, and the left kidney seemed to be a typical case of hydronephrosis. The right kidney was rather larger than normal, but quite healthy. The liver was normal.

SPINDLE-CELLED SARCOMA OF THE THYROID, INVOLVING LARYNX—SECONDARY DEPOSITS—DEATH.

(Under the care of Mr. HEATH.)

Eliza S., aged fifty-five years, was admitted on June 13, 1879. She stated that in January she first noticed a body like a darning-needle lying under the skin over the situation of the right internal jugular vein. In the act of swallowing, this moved up and down. It gave her no pain, but gradually increased in size, taking the form of an almond, and subsequently becoming spherical and as large as a walnut; it had attained that size by about the middle of February. It still continued free from overlying structures, and followed the movements of deglutition. At the beginning of March it had attained the size of a hen's egg, but

still gave rise to no pain. By April 1 she described the growth as having been as large as, and of the shape of, a sheep's kidney. It then began to cause pain on its own side of the neck, and at the same time produced cutaneous insensibility on the same side of the head; this was replaced in a fortnight by extreme superficial tenderness. The tumour then grew very rapidly. She took some "strengthening medicine," but nothing was done locally.

Patient stated that she had always had good health until the appearance of the tumour, when her strength began to fail. She had been married twenty-nine years, and had had seven children, all healthy; she had had no miscarriages. There was no family history of malignant disease.

On admission, there is found to be a large tumour of the neck, mainly on the right side; it takes somewhat the shape of the thyroid with its right lobe greatly enlarged. On the right side it reaches as far back as the anterior border of the trapezius, on the left as far as the posterior border of the sterno-mastoid; above, it reaches as high as the level of the angle of the jaw on each side, and to the hyoid bone in the middle line; below, in the right posterior triangular space it reaches the clavicle, and there crosses that bone, and, resting on the front of the thorax, reaches as low as the second costal cartilage; thence crossing the sternum about the level of the first costal cartilage it ascends to the posterior triangular space of the opposite side. The skin over the tumour is discoloured and stretched, its superficial veins are distended and tender, and its temperature is higher than elsewhere, but its structure does not seem to be involved by the new growth. The tumour is nodular, with irregular but defined edges, elastic, non-fluctuating as a whole, but at places giving a sensation as if it were cystic; there is no pulsation in it, direct or communicated; it gives rise to a throbbing pain, and causes much suffering by interfering with respiration, deglutition, and movement of the head. It moves up and down when patient swallows. The whole larynx appears to be displaced to the left, so that the pomum Adami appears to be about one inch to the left of the middle line of the neck. Both external jugulars course over the swelling; the left one is enlarged. The left sterno-mastoid can be traced lying superficial to the tumour. There is no apparent enlargement of lymphatic glands. The superficial veins of the front of the chest are enlarged and tortuous, especially those to the left of the middle line. On examining with the laryngoscope, the upper aperture of the larynx is seen to be elongated transversely and displaced; a prominent white point is observed, somewhat resembling the tip of the arytenoid, but in a very unusual position, and this is supposed by Dr. Poore to be the tip of the cornu of the hyoid bone. The right cord is certainly not paralysed; the left cannot be seen, as everything below the base of the epiglottis is displaced. The voice is almost completely lost; expectoration is profuse, watery, and muco-purulent. The respirations are 32 to the minute, and there is some dyspnoea, especially on excitement. The breath-sounds are harsh, and are weaker on the left than on the right side. The heart-sounds are normal. There is no exophthalmos. Patient is very anæmic, and has emaciated much lately. The tongue is furred; she complains of nausea, and there is more or less anorexia. The bowels are regular. Temperature 99.9°; pulse 96.

Patient remained under notice until June 23, when she died. No active treatment was adopted nor seemed practicable. The tumour increased in size, and the voice became weaker day by day. Respiration also became gradually more difficult, and her strength decreased until death ensued.

Post-mortem Examination, thirty-two hours after Death.—The body was well nourished; rigor mortis was well marked. There were a few adhesions at the right apex, but elsewhere the lungs were free and crepitant throughout. On section, a large quantity of frothy serosity escaped. One or two nodules were present beneath the right pleura, none larger than a pea; and several nodules, none larger than a hazelnut, were scattered through the lung substance. At the right apex there was a soft caseous encapsuled mass surrounded by indurated lung tissue. The capsule of the liver was easily stripped off, leaving a granular surface. The liver substance was uniform, somewhat fatty; and the interlobular tissue was apparently increased. The kidneys were small and slightly granular. There was a small interstitial fibroid in the uterus, about the size of a marble. On dissecting back the skin of the neck, the platysma, sterno-mastoid,

omo-hyoid, and thyroid muscles were all found stretched over the growth, and much thinned and atrophied, especially on the right side. On the left side the great vessels of the neck were not materially interfered with, except that they were pushed somewhat aside. On the right side the carotid seemed to pass into the mass of the growth. On both sides the external and anterior jugular veins were distended and spread over the growth, which pressed upon them near their termination, almost obliterating them on the right side. On taking out the tumour, larynx, and œsophagus *en masse*, the œsophagus was found to be deflected to the left with the larynx and upper part of the trachea, so that the lumen of the first-mentioned was much lessened in size, as was also the tube of the trachea. The arytenoid cartilages were somewhat approximated, the right being higher than the left, and so forming the abnormal projection seen during life. Below the vocal cords there was perforation of the larynx and trachea by the tumour. On making a cut into the growth it was found to be of a uniform yellowish-white colour, except where vessels ran through it. At its upper part it was fibrous, and almost resembled scirrhus; below, it was softer and somewhat brownish. One or two cysts were found, the walls of which were rugged, and contained the *débris* of the growth and blood. It was impossible to make out whether the growth was wholly confined to the thyroid, or had commenced in the lymphatic glands of the right side of the neck and thence spread across to the left.

Microscopical Examination.—On section after freezing, the growth was seen to be made up of spindle shaped cells with round and intermediate forms mingled with them, the spindle cells for the most part preponderating over the round and other forms. A few very small hæmorrhages were found scattered through the sections. No trace of the original structure of the thyroid was to be found. A few fat cells were seen at one part, and the sarcoma was undergoing myxoid degeneration at another part. The nodules in the lung were sarcomatous, being made up almost wholly of round cells. The uterine tumour was made up of spindle cells.

DR. CHARLES BENSON, OF DUBLIN.—On Wednesday morning, December 3, a very interesting ceremony took place in the Theatre of the City of Dublin Hospital, Upper Baggot-street, Dublin—the formal presentation to the Board of directors of that highly useful institution of a portrait of Dr. Charles Benson, the only survivor of the original founders of the Hospital, and one who for nearly half a century has watched over its interests with unswerving fidelity and zeal. The promoters of the presentation intended it also as a slight expression of that high esteem and regard in which Dr. Benson is held, not only by his professional brethren in Ireland, but by all those who have come in contact with him during his career. The Board of Directors of the Hospital gladly availed themselves of the opportunity of expressing the feelings of pleasure with which they regarded the occasion, and of joining in a tribute of praise so highly merited. The portrait represents Dr. Benson in a sitting attitude; while on a desk before him are some of his valuable contributions to the literature of medicine, and resting on the back of the chair is the black and gold robe of the President of the Royal College of Surgeons, which high office Dr. Benson filled with honour and dignity many years ago.

MR. T. BLIZARD CURLING, F.R.S.—At a meeting of the Council of the Royal College of Surgeons, on the 11th inst., a letter was read from the above gentleman, resigning his office as a member of the Court of Examiners. Mr. Curling has done good suit and service in the College, of which he was admitted a member on December 7, 1832, and obtained the Jacksonian Prize two years after for his work on Tetanus; in 1843 he was elected one of the 300 honorary Fellows of the College; in 1864 he was elected a member of the Council; in 1871 a member of the Court of Examiners; and in 1873 the highest honour in his College, the office of President, was conferred on him. The College will, happily, still retain the benefit of his great experience as a member of the Council.

THE *Manchester Guardian* states that Dr. Seaton, who not long since succeeded Dr. Simon as Medical Officer to the Local Government Board, has resigned his appointment..

and it must, he thinks, be respected. Of the possibility of the transmission of syphilis by vaccination there can be no doubt; and such a possibility assuredly ought to be guarded against. We think that Dr. Warlomont makes too much of the probability of such a disaster in England, when he advises medical men to observe rigorously this rule: "Do not vaccinate any subject with human lymph unless you can take lymph for the purpose from the arm of a child present whom you yourself have carefully examined"; or, he suggests, make the family of the vaccinee supply the inoculating lymph. Neither of these precautions is, however, always practicable, even if necessary—which we are not prepared to admit. But we are entirely in accord with Dr. Warlomont when he draws the conclusion that "in the countries where vaccination is compulsory by law, the duty of the State is to place at the command of the public a lymph which shall be free from all suspicion of diathetic adulteration." The probability of the occurrence of vaccinal syphilis may be so infinitesimally small, though the possibility is undeniable, that were there no means of avoiding it, or only some means extremely difficult of attainment, we should admit that the risk must be disregarded, and universal vaccination with human lymph must still be compulsory; but as a constant supply of animal lymph can be provided without great difficulty—for "what has been done in Belgium can be done in England,"—and without great cost, it appears to us an imperative duty, while enforcing vaccination by law, to give the option between human and animal lymph. It is idle to say that when all that can be urged in favour of animal vaccination is that it is necessary "to satisfy doubts, fears, imputations, and prejudices," it is manifest "the case is not strong enough either to demand or to excuse hasty legislation." For fears, doubts, imputations, and prejudices are very potent influences, and do stand in the way of vaccination; and no one wishes for "hasty" legislation: while, were Dr. Cameron's Bill to be passed in the next session of Parliament, it would not be a piece of hasty legislation. The subject of the Bill has been under observation and trial for years in other countries, though the rulers of the country of Jenner have refused to have aught to do with it practically.

Dr. Warlomont declined to take any trouble to answer the question, "Does animal vaccination preserve from small-pox as does humanised vaccination?" for no one had contested it; and he had no taste for fighting with windmills.

Sir Thomas Watson spoke shortly, but strongly in favour of animal vaccination; and the Chairman stated that Mr. Simon, who was unable to be present, had expressed himself as having somewhat changed his views on the subject, and, without committing himself to the report of the Committee, as having arrived at a conclusion mainly in favour of having more recourse than at present to animal vaccination. Other gentlemen also spoke, generally in favour of the objects of the Conference, and the discussion was adjourned, on the motion of Dr. Ballard, for a fortnight.

LEGAL POISONING.

WE are somewhat reluctantly induced to publish an account of a case which is of the greatest moment to the public and to the profession. It will be observed that the date of the inquest is some six or seven weeks old, but, for some reason, no adequate account of the case has been elsewhere given, so that, bearing in mind the extraordinary case now being investigated by Dr. Hardwicke, we have thought it well to lay the full report of the coroner's inquest, most ably conducted by Dr. Danford Thomas, before our readers. That will be found in another column.

Briefly, the facts are these. An American lady, aged only thirty-two, and having a son as old as fifteen, had occasion

some two years back to apply to a well-known West-end physician for a kind of suffering to which American ladies seem peculiarly prone. In the result, she was supplied with two prescriptions—one for a pill containing one grain of opium; another for a mixture of chloral and bromide, ten and fifteen grains respectively. Neither of these doses could for a moment be called excessive, and the mixture was only to be taken at bedtime. But what was the result? Once in possession of these documents, the unfortunate lady set herself to work to procure unlimited quantities of the two medicines by making use of the same prescriptions over and over again, first at one shop and then at another; often procuring double quantities. Nor was this all, for one chemist said he had supplied the husband with as much as forty ounces of ether, apparently for the use of the deceased, within the space of twenty-four hours. The tale cannot be better told than it is with all circumstantiality of detail elsewhere. We can only deal with conclusions. Unfortunately these are not satisfactory. Once, apparently, procure a prescription for any [noxious or poisonous] drug, for whatever purpose, and ever after this same drug is at the command of anyone who may be able to lay hands on the prescription! There are frequently ordered mixtures containing such substances as aconite, strychnine, prussic acid, or belladonna, to say nothing of opium, which, once out of the physician's hands, are at the will of the world. Nay, more, it is a well-known fact that if a certain prescription has done good to one, it may be circulated among the members of the family or kindly friends in the neighbourhood. Surely under such circumstances it is grossly unfair to hold a physician answerable for what may happen. Were the property in the prescription vested in the physician, such things could not occur. Were medicines dispensed, as in olden days, by the practitioners themselves, that could not occur. Were physicians and general practitioners always brought in contact, it could not occur. The mischief arises solely from the hiatus which now exists between physicians and chemists, whose interests, taking this case for example, do not seem to be identical. The physician would prefer to give a fresh prescription and receive a fresh fee: the chemist undertakes to save the physician's guinea to the patient by constantly dispensing the same prescription. And if one will not do it, another will.

ENTERIC FEVER IN INDIA.

OUR readers will perhaps recollect that we have twice already (a) adverted to the subject of the occurrence of enteric fever in India. Twelve months ago we called attention to the fact that it is only within recent years that enteric fever has been supposed to occur in India at all. It is only since 1871 that the disease has received a distinct place in the nosological returns relating to European troops in India, this result being mainly due to the important evidence furnished by Surgeon-Major Bryden in an Appendix to the Report for 1870 by the Sanitary Commissioner with the Government of India. In this Appendix Dr. Bryden asserted his belief, which he justified by a careful detail of cases, that enteric fever was quite common among the European troops in India, especially among the young and unacclimatised; and by a careful examination of previous returns he endeavoured to show that true enteric or typhoid fever was no new occurrence amongst the European troops in India. He concluded that its non-appearance in former returns was due to the fact that no separate heading existed for this affection in the official forms, and to a faulty and careless diagnosis which had hitherto failed to discriminate this special affec-

(a) See *Medical Times and Gazette* for December 14, 1878, and for September 6, 1879.

tion among the various kinds of continued and remittent fevers found in India. In succeeding reports Dr. Bryden re-asserted his position, and declared further that cases of the disease had been detected in the Native Army and amongst prisoners.

These announcements led to much discussion among medical officers in India, some of the older of whom continue to deny that enteric fever, as it is known at home, has been recognised in India. Surgeon-General Gordon, in a "Report on Typhoid or Enteric Fever in relation to British Troops in the Madras Command," which we noticed a year ago, examined the whole question, and came to the conclusion that the alleged prevalence of true typhoid in India was an unwarrantable statement, so far, at least, as the troops in the Madras command were concerned. We stated at the time that Dr. Gordon's Report seemed to us unsatisfactory, its details regarding the alleged instances of the disease being too meagre and inexact to enable a third party to form an opinion as to the real nature of the malady in the cases mentioned. We particularly objected to Dr. Gordon when he said, "If not traceable to specific causes, then it seems to me necessarily to follow that the disease has resulted from general influences—in other words, from endemic conditions affecting masses or individuals,"—for, as we pointed out, even at home there often occur cases of enteric fever which are *not traceable* to specific causes. In fact, through the whole controversy Dr. Gordon seems to have taken up the position that any given case of fever, though presenting all the ordinary signs and symptoms and even post-mortem appearances of enteric fever, could not be regarded as one of enteric fever unless it could be demonstrated to his satisfaction that the disease was directly traceable to filth-poisoning.

In our issue for September 6, 1879, we alluded to the fact that the Army Sanitary Commission had had Dr. Gordon's Report under consideration, and had come to conclusions regarding it very similar to those which had been expressed by ourselves. The Army Commission had under consideration, along with Dr. Gordon's Report affecting the troops in the Madras command, the Report by Surgeon-General Kerr-Innes on the prevalence and causation of typhoid fever among European troops in the Bengal command. Surgeon-General Innes came to conclusions which corroborated the opinions previously expressed by Dr. Bryden, that enteric fever occurs frequently in India, presenting the same phenomena during life and the same post-mortem appearances as in colder climates, and that in the Army it is most common among young soldiers twenty-four years of age and under, who have just landed in India. Surgeon-General Innes wisely urges that it is vain to look for an identical etiology in all cases (as Dr. Gordon has done); and we stated that the Army Sanitary Commission were in general agreement with Surgeon-General Innes, and in regard to etiology they pointed to temperature and malaria as probably exerting a modifying causative influence.

Since we noticed the Report of the Commission we have received a "Second Special Report on Typhoid or Enteric Fever in relation to British Troops in the Madras Command," by Surgeon-General Gordon. We have carefully perused this very lengthy document, and confess that our opinion is, that his second Report is as unsatisfactory as the first, and as little calculated to settle the point in dispute. He stands by the conclusions he came to in his first Report; but, as in so many causes of difference of opinion, the real point at issue seems to be chiefly a question of words. As we have said, Dr. Gordon always assumes that unless it is possible actually to trace alleged cases of enteric fever to the direct effects of filth-poisoning, such cases cannot be regarded as instances of true enteric fever. But

he ought surely to know—in fact, in both his Reports he quotes opinions of such men as Parkes, etc., to this effect—that the question of the exact cause or causes of enteric fever is the chief unsettled point regarding the disease, and that the term "enteric fever" cannot therefore be fairly regarded as connoting the operation—still less the sole operation—of a filth-originated cause. This second Report of Dr. Gordon's is, like his first one, a bookish compilation, for he has no new facts to advance, and the greater portion of the Report is occupied in re-asserting his previously expressed convictions, with numerous quotations from the older authors—whose opinions are, from the period at which they were expressed, utterly valueless in any dispute about a disease so recently differentiated as enteric fever. Dr. Gordon is obliged to admit that there do occur frequently in India cases having all the usual signs and symptoms and post-mortem appearances of this disease; and if the younger medical officers, who have personal knowledge of enteric fever as seen in Europe, diagnose such cases as they would diagnose them in Europe, it is hardly an answer on the part of Dr. Gordon to say that such a diagnosis cannot be made unless at the same time the causation of the disease is manifestly due to filth-pollution. As we have said, it is the exact etiology of the disease which is the point most disputed by competent authorities in Europe, but there is no dispute whatever about the group of signs and symptoms and pathological appearances that characterise the disease.

We certainly think that, as the result of this controversy, it is quite clear that the vast preponderance both of evidence and opinion is on the side of the view that true enteric fever is quite a common occurrence in India, if we are to give the same name to the same group of symptoms and anatomical lesions in India as in Europe. Only last week we published an original communication from Dr. Furnell, the Senior Physician of the Madras General Hospital, in which he describes several cases of enteric fever, and states his conviction that the disease is far from being rare in Madras, although he had at one time been sceptical as to its common occurrence. But Dr. Gordon will have done some service if the result of this controversy should be an increase of carefulness and precision in the diagnosis of Indian fevers; and in particular a re-investigation and settlement of the various opinions that have been advanced regarding the etiology of this disease. In another column are published the conditions of a prize which Dr. Gordon offers for an essay on this subject of Indian fevers.

THE WEEK.

TOPICS OF THE DAY.

THE Home Hospitals Association have published a statement of their position, consequent upon the recent decision of the Master of the Rolls regarding the premises acquired by them in Manchester-square. They point out that after a search extending over two years, during which time they have examined upwards of 200 houses, they find that they cannot legally occupy any leasehold premises in the West district without the consent of the ground landlord. Under these circumstances they make an appeal to the few landowners at the West-end who are in a position to help them, to come forward and place premises at their disposal to start an undertaking which will prove an incalculable boon to the large class of paying patients, who at the present time are almost entirely without hospital accommodation. Failing this, there remains only the alternative of endeavouring to raise a large sum of money by subscription, for the purpose of purchasing a freehold in the West district, to enable them to carry out their scheme. We may ask, however, whether it

is absolutely necessary that the first of these hospitals shall be established at the West-end? In the West Central district—say in the neighbourhood of Fitzroy-square—there are many fine old mansions which might be adapted for this purpose, and with the advantage of not being surrounded with a powerful and fastidious body of neighbours.

The outbreak of typhoid fever at the Cheshire County Lunatic Asylum at Upton has been more serious in its results than was at first anticipated. Two additional cases have been reported, making twenty-eight persons in all attacked, and four deaths have occurred up to the present time. The last victim is the chaplain of the institution, the Rev. Ralph Congreve, whose wife, it will be remembered, succumbed to the disease about a month ago.

It is presumably one of the penalties attaching to the largest city in the world, but none the more reassuring, that we are compelled to depend upon a private Society for Preventing Street Accidents and Dangerous Driving, and it is not without an uncomfortable reflection as to why there should be any necessity for such a thing, that we now learn that a new street ambulance for the use of "run-over" cases in street accidents has been presented to the Society by the inventor, Lieutenant Maclure, of the London Scottish Rifle Volunteers. The ambulance, we are told, is of an ingenious and light construction, not occupying, when folded up, more space than a pole 8 ft. long. The Society contemplates placing one of these ambulances at the Mansion House, another at the Regent Circus, and a third at Charing-cross, as it is found that conveying run-over cases to the hospitals in common cabs often converts a simple fracture into a more serious injury, owing to the jolting of the vehicle and the unsuitable position of the sufferer. We can only hope that the Police Commissioners of the metropolis will see fit to bestir themselves in this serious matter so effectually that the new ambulances will be seldom required.

A decided step has been taken towards the settlement of the metropolitan water-supply question, for notice has been given that an application will be made to Parliament next session for leave to bring in a Bill to authorise the constitution of a Metropolitan Water Trust, for the purchase, by agreement or compulsion, of the undertakings of the metropolitan water companies. Powers will be asked for enabling the Trust, subject to the provisions of the Act, to exercise the rights and powers of the companies, and to carry on the acquired undertakings; for the dissolution of the said companies, the creation and guarantee of stock, borrowing, rating, and other powers, and the amendment of Acts. The companies whose undertakings will be sought to be acquired wholly or in part are the New River, the East London, the Southwark and Vauxhall, the West Middlesex, the Lambeth, the Chelsea, the Grand Junction, and the Kent. Should the Government be induced to lend their assistance to the passing of this Bill, their hands will be strengthened by the continued and determined opposition which has been shown to the present method of supply. Only last week a meeting of the ratepayers of Bermondsey resolved, on the motion of Dr. Dixon, seconded by Mr. Stacey—"That this meeting is of opinion that the Southwark and Vauxhall Water Company have entirely failed to carry out the engagements imposed upon them by their Acts of Parliament, in giving to the consumers pure, wholesome, and an efficient water-supply; and that they have taken advantage of the indefinite framing of Clause 53 in the Act of 1852 to unjustly impose the maximum rates and charges to private consumers." Major Bevington also submitted a resolution, which was unanimously carried, calling for fresh legislation on the subject, and recommending that a memorial embodying the views of the meeting be presented to the Home Secretary.

In one day last week the Borough Coroner of Birmingham held no less than seven inquests, at the General Hospital of that town, on the bodies of children who had been burnt at their respective homes, and had died after admission to the Hospital. The Coroner severely commented on the conduct of the parents in leaving the children unprotected. He suggested that the Home Secretary should be asked, in the Bill for the codification of the criminal law now under consideration, to provide that if a child was burnt to death owing to the want of a fire-guard, and it was proved that the father was in a position to provide one but had not done so, and wilfully exposed the child to a horrible death, the neglect should be made a penal offence. It seemed to him that a little physical suffering inflicted upon the father, in the shape of the cat-o'-nine-tails, would have an enormous effect in inducing more care.

At the last meeting of the Metropolitan Board of Works, the Works and General Purposes Committee presented a report upon the subject of the Artisans' and Labourers' Dwellings Improvement Acts, in which it is stated that they had now under consideration the question as to the steps to be adopted, having regard to the unfitness for human habitations of large numbers of houses in the unhealthy areas. The Committee were not at present prepared to report fully upon this matter, but in the meantime it appeared to them very desirable that the Board should have a general authority to remove any premises required for the purposes of these schemes, in which fever or other infectious diseases were prevalent or imminent. They therefore recommended "that application be made to the Secretary for the Home Department for this purpose." The report was received and ordered to be adopted.

The case of Smee and others *v.* Smee and the Corporation of Brighton has resulted in a verdict which sets aside both wills made by the testator, Mr. William Henry Ray Smee—viz., the will of 1859, by which he gave the whole of his property to his wife; and the will of 1867, in which he gave his wife only a life interest in the property which was eventually to go to the borough of Brighton for the purpose of founding a free public library. The case is remarkable as showing how a man labouring under insane delusions on some points may yet be capable of managing his own affairs, and of exhibiting in various ways the possession of mental faculties of a superior kind. The Court decided to allow the plaintiffs' and Mrs. Smee's costs out of the estate, but declined to make a similar order in favour of the Brighton Corporation; although the President remarked that he thought the latter body were justified in trying the case, on which account he had not condemned them in costs. The law as now declared, therefore, is that a will cannot be overthrown by mere evidence of the existence of a delusion, unless that delusion has evidently affected the bequest.

A meeting of the delegates of the Hospital Saturday Fund was held on Saturday last at King's College Hospital, Mr. Samuel Morley, M.P., presiding. After some discussion as to certain privileges which the Council considered themselves entitled to in virtue of their contributions to the various London hospitals, the annual report was read. It stated that last year the total sum received was £6502. The books for the present year had not yet been closed, but up to the date of that meeting it was calculated that the Fund was about £50 in excess of the previous year's collection—an advance which was considered satisfactory when the great depression of trade was taken into consideration. The expenses were about £25 per cent. less than last year, and the charities would receive £5250, as against £5000 in 1878. The "Employers' Fund," by which employers were enabled to show their appreciation of the

efforts made by the men themselves, had been a decided success. With reference to the question of provident dispensaries, it was explained that a committee had been formed, with Mr. Stansfeld, M.P., as chairman, to consider the subject, and a hope was expressed that early in the coming year this Committee will have done its work, and that a scheme will be adopted that will secure to those who desire it medical relief for themselves and their families, at a comparatively small cost, from their own chosen doctor, and at their own homes. The report was adopted, as was also the report of the Distribution Committee, which showed that awards had been made to sixty-four hospitals, twenty-eight dispensaries, three convalescent homes, and one surgical aid society.

Whilst on the subject of Hospital Saturday, we may mention that last Saturday was the day appointed for making this collection in Wolverhampton, and, although trade has been very dull in the district for some months, nearly £1000 was handed in to the Committee from different works in the town in the course of the day. This does not represent the total amount that is expected to be received, as at many works in the neighbourhood the collection-sheets will not be closed until the commencement of the new year.

We are authorised to state that during the ensuing summer a Students' Garden will be thrown open in the Royal Gardens, Kew, where students will be permitted, under certain regulations which will be drawn up hereafter, to procure botanical specimens for scientific study and observation.

THE EXECUTIVE COMMITTEE OF THE GENERAL MEDICAL COUNCIL.

At the meeting of the Executive Committee of the Medical Council, held on Friday, the 28th ult., official notifications were received of the reappointment of Drs. Leet, Andrew Wood, Aquilla Smith, Storer, Rolleston, and Humphry, as representatives of the authorities they have hitherto represented on the General Medical Council. A difference of opinion was raised some years ago between the General Medical Council and the Branch Council for Ireland, relative to the practice adopted in the London office, of registering additional qualifications, and of making alterations in the General Register, without their being effected in the first instance in one of the local registers; and the General Council obtained the opinion of Mr. Bowen—then their standing counsel—on the subject. But the Irish Branch now sent fresh communications on the subject, with an opinion of the Solicitor-General for Ireland on the question at issue. The Executive Committee sent the opinions of Mr. Bowen and the Solicitor-General for Ireland to Mr. Ouvry, in order that he might submit both documents to counsel for the guidance of the General Council.

The names of some six-and-thirty members of the profession were directed to be restored, on payment in each case of the prescribed fee, to the Register, from which they had been erased in conformity with the provisions of Section 14 of the Medical Act—that, if they could not be found by a letter sent to them at their registered address, their names must be expunged.

Reports were received from the Branch Councils for Scotland and Ireland, on the answers from medical licensing bodies to a letter sent to them by the Executive Committee in regard to the preliminary education and examination of medical students. The answers from the licensing bodies related to three subjects: complaints made by several of the licensing bodies with regard to the insufficiency of the general education of many of the candidates presenting themselves for examination; the recommendation of the

Medical Council that the licensing bodies shall instruct their professional examiners to report to them any cases in which decided ignorance in general education has been shown by the candidates, with the names of the Board before which the preliminary examination had been passed, and that these reports be sent to the General Council; and the opinion of the General Council that the examination in preliminary education be left to the Universities, and such other bodies engaged in general education and examination as are approved by the Council. The report from the Branch Council for Scotland was characteristically argumentative and full, but the conclusions arrived at were that the recommendation to report deficiencies should be added to, and that it did not appear to them that the last recommendation would be an improvement in the mode of conducting examinations in general education. The reply from the Irish Branch Council was very short, and it may perhaps be said that it also was characteristic. It was—"That, taking into consideration the great diversities of opinion among the licensing bodies on the subject of Preliminary Education, and the impending amendment of the Medical Act, the Branch Council believe that the question of preliminary education may be postponed for future deliberation."

A letter from the Colonial Office to the President of the Medical Council was read, giving the satisfactory information that the proposed legislation in Canada for imposing a heavy registration fee, in cases where registration in the province of Ontario is sought by British practitioners, had been abandoned; and it was decided "that the Entrance Examination of the University of New Zealand be included in the list of preliminary examinations recognised by the Council."

The Registrar reported that at the instance of James Patrick Murray a rule *nisi* had been served upon him, ordering the Council to show cause why a writ of *mandamus* should not issue directed to them, commanding them to restore the name of James Patrick Murray to the Medical Register. And Mr. Ouvry, the solicitor to the Council, reported that James Patrick Murray's solicitor had intimated his intention to abandon the rule, and in consequence thereof he had procured the rule to be dismissed with costs.

Some returns from licensing bodies had been obtained by the Registrar, pursuant to instructions from the House of Commons' Select Committee on Medical Bills, showing in detail how far the regulations and practice of each licensing body are in accordance with the "Recommendations of the General Medical Council"; but these returns were not complete. When they have all been received, a tabular series of them will be drawn up and printed, along with a subsequent edition of the Minutes of the Committee. Some dental business was transacted, and then the Committee adjourned.

THE CASE OF DR. PHILLIPS v. LONDON AND SOUTH-WESTERN RAILWAY COMPANY.

In accordance with the notice previously given on Saturday last in the Common Pleas Division of the High Court of Justice, before Mr. Justice Grove and Mr. Justice Lopes, Serjeant Ballantine appeared to ask for a rule calling upon Dr. Phillips to show cause why there should not be a third trial in his case as against the London and South-Western Railway. The present rule was asked for on the ground that the damages awarded were excessive, and also that there had been misdirection. It was also stated that there was great anxiety to obtain some decision as to what should be the rule as regards the amount of damages to be awarded in such cases in future. A long discussion ensued between the Bench and Serjeant Ballantine, but in the end Mr. Justice

Grove said he thought there should be no rule in this case. As to the amount of damages, Lord Coleridge, who tried the case, was not dissatisfied with that. The mode in which damages were to be assessed might be worthy of consideration elsewhere, but they themselves could not alter the law. Lord Coleridge laid down the law as it had always been laid down, nor could it, under all the circumstances, be said that the damages were excessive. If any fresh principles of assessing damages were to be laid down, that must be done by a court of appeal, or by Parliament. Whether this should be done was a matter that might very well be considered, but the Court had only to act upon the law as it was. The rule was therefore refused. A stay of execution was, however, granted until the 17th inst., in order that the directors of the Company might consider the matter, and decide whether they would carry the case to the House of Lords. It would certainly appear to be a moot point whether the weight of public sympathy should incline to Dr. Phillips, who has been first injured, and then legally harassed, or to the unfortunate shareholders of the London and South-Western Railway Company, whose possible dividends are being expended in the law courts over this case.

UNIVERSITY OF DUBLIN.

THE Council and Board of Trinity College, Dublin, have appointed Mr. H. W. Macintosh, B.A., Registrar of the Medical School, to the Professorship of Zoology in the University, vacant by the recent appointment of Professor Macalister to the Chair of Anatomy and Chirurgery in the School of Physic in Ireland.

UNHEALTHY OFFICIAL RESIDENCES.

It is unhappily no new thing to hear that official residences in which her Majesty's servants, military, naval, or civil, of various grades have to work or live are in a dangerously insanitary condition. The story of the unhealthy state of the War Office is well known. Last year, a distinguished and valued medical officer of the Medical Department of the Navy died of typhoid fever, supposed to have been contracted at the Admiralty Office; and very lately, Inspector-General W. T. Domville, a most valuable officer, died also of typhoid fever at Haslar; and it is said that the drains and sewers of the official residence in which he lived were in a most unsatisfactory condition. We now hear that the sanitary state of the Admiralty House at Portsmouth is dangerously bad. A new Naval Commander-in-Chief was, we believe, coming into residence, and took the precautions of first going over the house, and of then having it examined by an expert; with the result that the whole of the drainage system was condemned, and the Admiral in command will have to live somewhere else for three months, while all the drains, sewers, etc., of his official residence are relaid and the house put into a proper sanitary state. It is probably very fortunate for this officer that he was wise and energetic enough to see to the state of the Admiralty House before moving into it; but might it not be fairly required that Government should have all official residences periodically inspected, and kept in a properly sanitary condition? It should not be difficult for the Local Government Board to do the work.

ANNUAL REPORT ON THE HEALTH OF KENSINGTON.

THE annual report on the health and sanitary condition of the parish of St. Mary Abbott's, Kensington, for the year 1878, by Dr. T. Orme Dudfield, the Medical Officer of Health to the district, requires only a brief notice at our hands, since many of the monthly reports issued by this gentleman on the sanitary condition, etc., of Kensington, have already been

noticed in these pages. The year under notice is shown to occupy an unfavourable position in respect of the vital statistics of the parish, especially as compared with its predecessor, 1877; but, Dr. Dudfield remarks, a death-rate much below the average one year is nearly sure to be followed by a rate above the average in the next or following year; and, therefore, though it may be well to refer to the fluctuations in the rate from year to year, it would be unwise to attach too much importance to them, since the healthiness of a district is best judged by the decennial rate. Whooping-cough and diarrhoea were the two zymotic diseases answerable for the greatest mortality, and Dr. Dudfield maintains that the latter disease becomes fatally prevalent in London when the water of the Thames attains a temperature much above 60° Fahr. The report also refers to the charges which have been brought against the Fulham Small-pox Hospital of spreading the infection in the locality, and Dr. Dudfield details the steps taken by him to prove the fallacy of this assertion. In dealing with the subject of hospital accommodation for cases of infectious disease, the report advocates the establishment of a "Common Sanitary Fund" for the metropolis, as hinted at by the President of the Local Government Board; and if this could be successfully carried out, coupled with a law to compel the disclosure of all cases of infectious disease, Dr. Dudfield thinks we might hope to be able to combat diseases like small-pox and scarlet fever with more success than we can at present boast. As might be imagined, judging from the earnest manner in which the health of the Kensington district is supervised, the report contains a full account of all the sanitary work which has been undertaken and carried out during the year to which it refers.

ABSTRACT OF A PAPER

ON ANIMAL VACCINATION,

By Dr. WARLOMONT.

Read before a Special Meeting called by the British Medical Association.

I FEEL that my temerity is great in discoursing to you on vaccination in the country of its birth, under the sky which has seen the growth of that to which we owe the most stupendous benefit with which the genius of man has ever endowed mankind. Permit me, before commencing my address, to fulfil a religious duty in at once saluting the name which grateful families only pronounce with veneration—the great name of Jenner. In speaking of vaccination for the first time I wish to make a profession of faith, which will be sincere, as everything that I shall have the honour of saying to you. Although I have come to speak to you on the method of so-called animal vaccination, I am anxious, above all things, to tell you all my ideas as to the part which it is expedient to assign to each of the two methods. In my view animal vaccination should have no tendency to forcibly supplant vaccination from arm to arm. The latter ought, on account especially of the facilities afforded by it principally in the countries where the population is much scattered, to be scrupulously observed. They are, in fact, two sisters, and must not be separated. This proposition is based upon a fact without which it could not exist—the perfect identity between the lymph of the child and of the calf, so far as regards their active principle. The vaccine matter is composed of two chief elements—a vehicle which is nothing but serum, and some special granulations which represent the vaccinal power. This last fact has been quite recently placed beyond doubt by the experiments made at the vaccinating establishment of Amsterdam by MM. Carsten and Coert, whose results fully confirm those which M. Chauveau had already obtained by other means with regard to human lymph. The identity is perfect as to the nature of the active principle of the lymph,

whether it is derived from the calf or the child. It is in both cases a figurative granulation, perhaps a microbe, suspended in serum. This serum, however, differs a little; it is more plastic in the calf, perhaps because the lymph yielded by the latter has had to be expressed by a force which expels more fibrine; hence a tendency to coagulation, which renders its keeping in the liquid state more difficult, or rather, its expulsion from the capillary tubes into which it has been put. This identity is established, if possible, more completely still by my own personal experience. During six months I have successively transmitted the same lymph from the calf to the child, from the child to the calf; and, after twenty-five transmissions thus crossed, I have found the lymph still to possess all its original qualities. This fact, well established in the way that I have just related, enables us to formulate the proposition that human lymph and calf lymph can render each other mutual aid and assistance. But, it will be asked, if the two lymphs are of equal value, why call to the aid of humanised lymph, the supply of which never fails, the assistance of animal lymph? The answer is, that this help is especially necessary to satisfy doubts, fears, imputations, and perhaps prejudices. It has been said that lymph degenerates by passing through the human organism; so that what was introduced by Jenner has now lost a part of its power. This is only a simple assertion, and its truth has not been proved. There is perhaps some merit in my acknowledging it, but I myself—rashly, I fear, but honestly—brought forward this idea some years ago. At the present time nothing proves to me, nothing tells me, that lymph can degenerate. As long as its globular molecule—its microbe?—is preserved and is healthy, there is no ground for asserting that it has degenerated. Have small-pox and syphilis lost their vigour by lapse of time? However this may be, the feeling exists, many physicians share it, and I think it must be respected. If to their mind animal lymph promises to those vaccinated with it a more certain and more durable immunity, what right have we to refuse it to them? Again, it has been said, and this is much more serious, that human lymph taken from a syphilitic subject can transmit syphilis to the vaccinee. The fact is only too true, and certainly it is not in England that it is necessary to strive to establish it. The physician ought, then, to guard himself against such a possibility; and he can, indeed, only do so by imposing upon himself the obligation only to make use of the lymph from infants whom he has under his own eyes, and of the state of whose health, as well as that of their parents, he can be positively assured. We will not insist too strongly upon the necessities in this direction; but we believe that the practitioner can in no other way find the elements of complete security. This being so, he ought not to be allowed on his own responsibility to make use of any human lymph collected by any other person than himself; and he should impose upon himself as a line of conduct that, when a family requests him to perform vaccinations or revaccinations, the family should itself provide him with the inoculating matter. In this way, and in this way alone, can the physician protect himself from future responsibilities and claims. I am fully aware that this method of procedure, faithfully followed, would have the result of increasing and exaggerating the mistrust already diffused in the public mind. But what is to be done? The physician is by no means anxious to offer himself as a holocaust to the ill-feeling of families, always disposed to attribute to the lymph employed all the maladies which may subsequently seize their children; and the prudent course which I recommend to them is the only one which can at once really cover their responsibility, and, on the other hand, screen them from unjust reproaches. I know full well that I shall be accused of excessive precaution. At vaccination establishments, I shall be told, the collection of lymph from the arms of infants is done under conditions calculated to offer every security; the persons charged with this office quite appreciate the importance of the duty confided to them, and not a tube of lymph escapes their hands which has been taken from a doubtful source. What a mistake is this assertion! Does not the moment always arrive when the most attentive, the most scrupulous man, relaxes his vigilance? So, when the question is of human lymph, this rule must always be rigorously observed: Do not vaccinate any subject unless you can take lymph for its vaccination from the arm of a child present whom you have yourself carefully examined. Now, this condition cannot be always

observed. Too often, the stocks can only be kept up by means of preserved lymph collected from subjects intended to serve as vaccinifers. These conditions apply indiscriminately to all countries in which vaccination is voluntary; but there recourse to it can be dispensed with until opportunity serves. In those countries in which vaccination is compulsory, it is not the same; it is necessary to submit within a fixed period to the lancet of the vaccinator one's children or grandchildren, without, in the majority of cases, having the time—we are speaking especially of the poor,—the power, or the means to inquire if the matter to be used for vaccinating fulfils all the conditions of harmlessness which one has the right to demand of it. I do not hesitate to repeat—I say “repeat” because I have already said and written many times—that this is not right. In the countries where vaccination is compulsory by law, the duty of the State is to put in the hands of the public a lymph which should be free from all suspicion of diathetic adulteration. Like Cæsar's wife, it ought always to be above suspicion. Nothing is so blind as the prejudices of the public; but are these prejudices inconsiderate? England, in systematically rejecting animal vaccination, as it has officially done up to the present, has neglected to rob revaccination of the principal obstacle which has been obstinately thrown in the path of its general acceptance; and it has by this neglect committed a fault for which public opinion has, perhaps, the right to reproach it. However this may be, the objection founded on the difficulties of execution is no longer valid. If he who speaks to you has been able during more than ten years to preserve his service from all interruption, the pursuit of a similar object and the execution of a similar programme cannot be beyond human power. What has been done in Belgium can be done in England. But will the organisation and the direction of such a service be an easy task? Very far from the truth would he be who had such a notion. One cannot, indeed, imagine all the zeal, the care, the incessant supervision, which such an enterprise exacts, and in default of which all the wheels of the machine will stop at once.

After relating many facts, the Professor concluded by saying: Does animal vaccination preserve from small-pox as does humanised vaccination? Up to the present, no one has contested this, and we have no taste for fighting wind-mills. I confide myself, therefore, to what I wrote five years ago on this subject:—“Out of more than 10,000 children vaccinated at Brussels with animal lymph, from 1865 to 1870, and who went through the terrible epidemic of small-pox which in 1870 and 1871 frightened the world, not a single one was, to my knowledge, reported as having been attacked by the disease. The same immunity was shared by those—a much larger number—whom I had revaccinated, and who, at the same time, were living in epidemic centres.” Three years later, in 1878, wishing to have a clear conscience, we, at a meeting of the Belgian Academy of Medicine on March 30, appealed with this object to our colleagues in the following terms:—“I have said before that no such case had been reported to me. I repeat it; and, up to the present, none of the numerous practitioners that I have questioned on the subject have contradicted me. Have there not been any? It seems to me impossible. However this may be, I appeal to the medical officers of hospitals and charities to clear up the point, which, on account of the deductions to be drawn from it, requires to be strictly verified.” This appeal has remained, and still remains, without reply. Such a silence is what I hope to evoke from you, as the most eloquent testimony in favour of the method of which I am the most confident defender. I will conclude by stating precisely what position I recommend should be assigned to animal vaccination. This position is not of that exclusive character that one might think. In the recent report which I addressed to the Minister of the Interior of Belgium, and to which I have referred above, I have thus frankly explained it. The State Vaccine Institute, while being the supporting column of vaccination in the country, ought not to have any thought or claim of substituting itself for the traditional practices. Vaccination from arm to arm, strong in its ancient rights, is, and will long yet remain, the greatest strength against small-pox, and nothing ought to be omitted to encourage and regulate it. Animal vaccination ought now only to be its faithful auxiliary, but an auxiliary so useful that it would be as unjustifiable to pass it by as to desire to upset suddenly the classical method.

DEATH FROM NARCOTIC POISONING: PHYSICIANS' PRESCRIPTIONS.

ON October 28 last, the Deputy Coroner for Central Middlesex held an inquiry at 56, Guilford-street, Russell-square, concerning the death of Nina Louise Sherwin, an American lady, who occupied apartments at the above address, and who was supposed to have died from an overdose of narcotic medicine. The deceased lady was thirty-two years of age; her husband was abroad, and she lived in apartments with her son, who was fifteen years old. In the course of the inquiry it transpired that some two years ago she had consulted a well-known West-end physician, and obtained from him a prescription, which was produced in court, and which was as follows:—"Pulv. opii. gr. j., fiat pil. mitte vj.;" label, "The opium pills." And about the same date she had a second prescription from the same physician which contained the following:—"Hydrat. chloral. ʒij., potass. brom. ʒiij., aquæ ad ʒvj. A sixth part to be taken at bedtime." Both prescriptions were without date, and were covered with the stamps of various chemists who had at different times prepared them.

A chemist residing in the neighbourhood of the deceased's residence gave evidence that he had over and over again made up the medicines referred to, and that the deceased was in the habit of constantly sending for double quantities, and also of obtaining them from other chemists besides himself. He also stated that the deceased made use of sulphuric ether to a very large extent, and that her husband had within the last twelve months procured from him for the use of deceased as much as forty ounces in the twenty-four hours; and he was told deceased used to inhale it to a large extent.

On being further questioned, the witness said that there was nothing stated in the prescriptions which prevented him from preparing the medicines as often as he was requested to do so, and if he had refused to supply only a certain quantity the patient could procure any amount by taking the prescription to other chemists. During the fortnight before her death deceased had not purchased any sulphuric ether from him, but had had the chloral mixture and the opium pills frequently repeated. The deceased died on the 25th, and on the 23rd he supplied one bottle of the mixture and a double quantity of the pills, which deceased herself called for; and he had since the death been informed that supplies had also been obtained from another chemist. Sometimes deceased came herself for the medicines, at others she sent a messenger.

Dr. Watkins, of Guilford-street, stated that he was sent for on the afternoon of the 25th, and found deceased in bed and in a dying condition. Her pupils were closely contracted and her breathing stertorous; she was perfectly insensible, and suffering from the effects of narcotic poisoning. He used every endeavour to rouse the deceased, but without avail. From what he had ascertained the deceased had been for years in the habit of inhaling sulphuric ether to a very large extent, and had obtained the prescriptions produced for pain and want of sleep. He was quite satisfied that her death was caused by taking an overdose of opium contained in pills, and hydrate of chloral contained in a mixture.

From the evidence of Annie Gager, a dressmaker, who stated that she had known deceased for over two years, and that lately she had been much in her company, and sometimes had slept with her, it appeared that on the day previous to the death the deceased sent for her, and she remained with her during the night. At the request of the deceased, she obtained a supply of the medicine from the chemist, and was also sent by deceased the same day to another chemist, from whom she obtained a double supply of pills. She knew deceased had not been in good health, and suffered from pain in the chest. That evening she observed that deceased was in a weak and exhausted condition, but not worse than she had seen her before. Deceased was not in any way addicted to intemperance, but she knew that deceased took ether in large quantities, and was at times stupefied by it. On the evening before deceased died she left her about eight o'clock,

but was again sent for at half-past eleven to stay the night. Deceased was restless, and got up and looked out of the window, but was persuaded to return to bed. Deceased then asked for her medicine, which she gave her, and deceased poured the contents of the six-ounce bottle into a tumbler, and drank some of it, placing the tumbler by the side of the bed. Deceased also took several of the pills, and then went to sleep, but woke again during the night, and took more of her medicine. The following morning witness went home shortly after nine o'clock, leaving, as she thought, deceased sound asleep. Between three and four hours afterwards she was sent for to come at once, and was greatly surprised to hear that deceased was much worse, and that Dr. Watkins was there trying to rouse her, and that she was dying from the effects of an overdose of opium. She found the tumbler nearly empty, and all the pills gone. The same witness further stated that she knew deceased had been in a very nervous condition, and that her hands trembled, but she did not think that she was likely to die so soon. Deceased always refused to have medical advice, as she said she could use her prescriptions.

The landlord of the house, the son of the deceased, and a gentleman who was a friend of the family, confirmed most of the above statements, and the jury, after a careful and lengthened inquiry, returned the following verdict:—"That the deceased was found dying from the mortal effects of opium contained in pills, and also from other narcotic poisons contained in a mixture, of both of which deceased took overdoses; and the said jurors having heard in evidence that the prescriptions from which the deceased's medicines were prepared contained no special directions as to how frequently, when, and for how long a period the remedies were to be used, would suggest that physicians should indicate on their prescriptions when the patient should leave off taking the medicine, or so mark them that chemists may refuse to make them up repeatedly unless medical authority is obtained for so doing."

The Coroner stated that he was further of opinion that the full name and address of the physician or surgeon should be written at the bottom of the prescription, and not merely the initials attached, as appears to be the usual custom of prescribers.

BADER v. GORDON.

THIS case, which lasted several days, and was brought to a conclusion on Monday last, was an action brought by Mr. Bader, the well-known Ophthalmic Surgeon of Guy's Hospital, to recover the sum of £23 2s., his fees for treating and operating upon the defendant, Mr. Alexander Gordon, a Chancery barrister, for cataract. The defendant admitted that the operations—iridectomy and needling—for which fees were claimed, had been performed, and that the sum charged for them was reasonable; but he asserted that the plaintiff had performed them unnecessarily and without his consent, and, in general, had acted unskillfully and negligently. In his pleadings he further alleged that in performing iridectomy the plaintiff had injured the lens of the eye, and had afterwards resorted to the operation of needling simply to conceal the effects of his previous unskillfulness. And finally, the defendant claimed damages for the injuries he had sustained through the negligence of the plaintiff. For Mr. Bader it was contended that the operations performed were such as were suitable to the case; that they were skilfully performed; and that it was the defendant's own fault that the cure had not been completed, as he had neglected to present himself, as told to do, to have the needling repeated; that it was with the defendant's consent that the operations were performed; and that a cure might still be perfected by a repetition of the needling. The operations were performed in 1875. The professional witnesses called were Mr. Power and Mr. Higgins for the plaintiff, and Mr. Bowman and Mr. Critchett for the defendant, and they all agreed that the operation was an appropriate and common operation as a preliminary to other operations for cataract, and that it had been skilfully performed.

The jury found a verdict for the plaintiff on his claim, and against the defendant on his counter-claim, and added a rider to the effect that, in their opinion, Mr. Bader did not suffi-

ciently explain to Mr. Gordon the operations he was about to perform, before he performed them. A question was raised as to costs, but Lord Coleridge, in giving judgment, stated that he thought that the verdict upon the evidence was perfectly right, and the jury could not properly, upon the materials before them, have come to any other conclusion. The action was for £23 2s. for fees, and the plaintiff could not be expected to bring it in the County Court. He could not get his fees without this action, and the jury found a verdict for him, in which verdict he (Lord Coleridge) concurred. It seemed to him that he ought to leave the ordinary consequences to follow, where a gentleman brought an action and recovered, and against him there was scarcely a word of imputation as to *mala fides*, or dishonesty or fraud, and certainly no charge sustained. He therefore gave judgment for the plaintiff with costs.

PRIZE FOR ESSAY ON FEVERS.

SURGEON-GENERAL C. A. GORDON, M.D., C.B., Honorary Physician to her Majesty, with the approval of Government, offers a prize of 500 rupees to the writer of the best Essay on Fevers as affecting British Soldiers in India. Particulars with regard to conditions, arbitrators, date, and manner of submitting essays, are given below, namely:—

2. The essays must include a comparative history of that class of diseases as given by the older writers and by the more modern; their causes, including such as are predisposing and those that are direct or exciting; their relative prevalence and mortality according to age and residence in India; their modifications by diathesis, locality, climate, and season; their pathology; their treatment, illustrating this important point, as far as possible, by records of "cases" either from case-books or published works dating previous to 1857, and of those of a date subsequent to that period; the object being to indicate, as clearly as may be practicable the results of the several methods adopted, and thus obtain a guide with regard to the future.

3. The assigned causes of fevers being investigated and categorically detailed, measures will be indicated by which their prevalence among British troops and their present very serious rate of mortality may for the future be diminished.

4. With reference to what some writers may in their essays designate *enteric* or *typhoid fever*, they will give a distinct definition of the precise significance attached by them to these terms, whether applied in a sense independent of each other or synonymously; also, in the event of either term being used to indicate a specific and otherwise independent disease rather than a *condition of*, or *complication* occurring in, the course of endemic fevers whether continued or periodic in type, a distinct and precise record must be given of the circumstances upon which the distinction thus indicated is based.

5. The prize now offered will be open to all officers of the Army Medical Department and of the Indian Medical Service of the three Presidencies, whether upon retired or full pay, provided that they have on August 31, 1879, severally done medical duty with British troops in India during five full years and upwards.

6. The award of the prize now offered shall rest with three arbitrators, who must themselves have done duty for at least five years with British troops in India, and have been at least ten additional in this country, making in all not less than fifteen full years in India. Government has been solicited to request the Director-General of the Army Medical Department, the Right Honourable the Secretary of State for India, and the Army Sanitary Commission, each to appoint one of the three arbitrators, the latter unconnected with the Commission itself; these three to have power, should they so desire, to add two to their number so as to make it five in all; and at least one of the arbitrators to have himself served in India as above during not less than ten years prior to 1857.

7. Essays by officers of the Army Medical Department should be transmitted through the usual channel to the Director-General of that department; those by officers of the Indian Medical Service through their channel of communication to the India Office.

8. With a view to afford ample time for the preparation of essays, December 31, 1881, will be the latest date on which those essays will be received in the India Office or that of the Director-General, and the decision of the arbitrators as to the award of the prize for the best of those essays will be published in England and in India, if possible, not later than July 31, 1882.

9. In the event of no essay being laid before the arbitrators, or of their considering it desirable for other reasons to withhold the reward for the present, they are hereby authorised to re-model the conditions of award in such manner as to them may appear fit, bearing in mind the general object in view in offering the prize as above detailed.

September 4, 1879.

FROM ABROAD.

PROFESSOR BALL ON THE DIAGNOSIS OF INSANITY.

THE following is the first lecture which we have seen reported (*Gazette des Hopitaux*, December 2) of the course now being delivered at the Asile Ste. Anne, by Prof. Ball:—

When you approach the bedside of an ordinary patient you are usually met with friendship and goodwill. You are regarded with hope as a saviour, and everyone hastens to inform you. This is not the case with regard to insanity. Not only the victim looks upon your arrival with distrust,

but the self-esteem of relatives has a tendency to lead you into error and become an accomplice in the delirium of one of its members. In many cases, however, the diagnosis is easy enough. If the patient exhibit certain disordered proceedings, you pronounce him a maniac; while if he bears on his countenance the impression of stupor, and keeps himself huddled up, you regard him as the subject of melancholia. But they do not always go on in this way, and you may sometimes have to contend with true obstacles. These may especially proceed from magistrates and certain learned and well-educated persons, who may be just as apt to decide as a physician. This is an error to be regretted in all points of view, and justifies the necessity of a regular and scientific method. Four problems may present themselves: 1. Is the patient mad? 2. If he be mad, what is the form of his delirium? 3. May this not be caused by an intercurrent disease? 4. Is not his insanity simulated?

1. *Is the Patient Mad?*—Here you will understand that you can make no use of Rostan's formula, "Where do you suffer? How long have you suffered?" To such a question the lunatic would indignantly reply that he is not ill. Thus it is necessary to commence by inquiring concerning his condition and antecedents, and in default of these to proceed to minute interrogatories, finishing by a physical examination. One of the chief difficulties is to put oneself in relation with the patient, all kinds of subterfuge being required, and the mode of procedure varying according to whether we are commissioned by authority as an expert, or directly consulted by the patient himself or his friends. The first recommendation I give you is to present yourselves with authority. The insane, although they are in revolt against reason, readily allow a real ascendancy to be imposed upon them. They retain their respect for the magistracy and armed force, and some adroit insinuations, such as that we are charged with an inquiry, etc., may suffice to obtain valuable admissions. These first difficulties overcome, we should let the subject go on talking as he chooses, merely guiding the course of his ideas and preoccupations, without opposing the flow of his verbose loquacity. Maladroit interference would suspend the course of his delirious conceptions, just as we may suspend the subdelirium of a typhus patient when we seek to arouse him from his torpor. If in this way we can only obtain from him some vague information, we can always engage him in ordinary conversation on some common topic in order to be able to judge whether he is capable of judgment, memory, cohesion of ideas, etc. In the case of intellectual confusion we may easily find the channel of the dementia; but, if doubt still remains, we must search in another direction, and I do not know of any better manner of obtaining light in such cases than having recourse to the arithmetical test employed by Prof. Broca for the subjects of aphasia. By asking how many five times five or six times six, etc., make, we rarely fail to cast the sound with certainty into the depths of the perverted mind. After having engaged him in an apparently indifferent conversation, by successive transitions you come to inform yourself of his health, and the really weak point of the individual. A word will often decide you. I saw a locksmith some time ago, who presented all the symptoms of commencing general paralysis, but who, in regard to his faculties, seemed irreproachable. One day, however, he told me that he had been the subject of so singular a disease at the Pitié that M. Labbé had assembled 50,000 students in order to lecture upon so rare a case. An exaggeration like this at once taught me what I ought to think of his mental condition. The formulæ are easily varied, but I recommend you to especially have in view the sentiments of pride and vanity, and the social position of the patient should also be considered. Sometimes he believes himself to be highly fortunate, when he has no means of existence; or, possessed of all the elements of well-being and comfort, he may regard himself as reduced to mendicity. Interrogatories concerning parentage or friends will often furnish most positive information. I one day asked a lunatic whether he was really the son of a grocer, when he confided to me that he was a bastard of the Pope. On following up the lunatic into his last intrenchments, he soon makes frightful confidences concerning his relatives, his enemies, and the miseries of his existence. We here approach the *délire des persécutions*, and then you have to ascertain whether hallucinations exist, whether he hears voices or threats are addressed to him, and whence they come; whether he sees his persecutors, and what forms they

assume. You should inquire also whether he has hallucinations of smell or taste, suffers from filthy odours, has been poisoned, and whether the taste of the adulterated food which has been given him is perceived long after meals. Political events often cause an outbreak of ambitious delirium. At one time a number of persons persisted in stating that they were the sons of Louis XVI.; and lunatics often declare themselves persecuted for the sake of a valuable inheritance that has descended to them. The religious question should be approached only with prudence and circumspection, and avowals will only be obtained by caution. The lunatic will then avow to you that he has long had relations with the superior powers, and that the renovation of the world has been confided to him. Secrets of this kind are sometimes kept for years, or even during an entire existence. . . .

As to the external habitus, it is of great importance in the diagnosis. The physiognomy resembles a mask, exhibiting no longer any intellectual reflection. The eyes wander, and have sometimes the immobility of a batrachian, while at others they roll in the orbit like those of the traitor of a melodrama. The expression is that of cunning and trickery; the features are ill-defined, and wrinkles show prematurely. As a general rule, lunatics are more ugly than by nature; but some women, under the influence of maniacal excitement, exceptionally assume an illuminated and poetic expression, which is not without its charms. I must also mention the pigmentation of the integuments (a characteristic bistre colour sometimes being present), tremor, hesitation of speech, strabismus, etc. The attitudes vary with the strength and the idea which the lunatic entertains of his position, his powers, or his infirmity, and the dangers which menace him. In the one case he walks with ostentation, taking on a royal and protective air; and in the other being humble and shrinking. The smallest details are of importance. The door-bell of a rich man with numerous servants is rung, and he answers it himself, because he is agitated and anxious to know that he has nothing to fear from the new arrival. He is already affected, and the drama will ere long be played out in all its varieties. Their gestures, tics, and mode of demeaning themselves, frequently betray lunatics. If they are searched, in the lowest depths of the clothes of some of them will be found a magazine of provisions, or objects collected or stolen by hazard, denoting an exaggeration of the instinct of property. Finally, we must take into account the history of the patient, his near or distant relationship with lunatics, and the fact of his having had prior attacks of insanity (relapses are of frequent occurrence at Sainte-Anne). We must ascertain also whether he has had neuroses, epilepsy or exophthalmic goitre, and whether he has undergone change in his tastes and tendencies, such as seeking solitude, and what have been the precursory phenomena of the crisis.

2. *What is the Form of Insanity?*—I shall not offer you a learned classification, but will content myself with telling you what is most often seen within this Asylum and beyond its walls. *a.* First of all we have general paralysis, which is becoming more and more frequent in Europe, although it is not met with in Ireland—a singular circumstance, seeing that the inhabitants of that country are active, intelligent, drinkers, and easily given to excess; which are all pre-disposing conditions. *b.* Alcoholism continues to make ravages which the phylloxera has not arrested. *c.* The *délire des persécutions*. *d.* The insanity which is consecutive to neuroses may be placed in the fourth rank, and in the fifth sympathetic insanity dependent on lesions of various viscera, as the uterus, liver, etc. *e.* All the other forms of insanity may be ranged under the head “various.”

3. *The Temporary Influence of Various Diseases.*—Certain acute diseases, and especially typhoid fever when it is not accompanied by intestinal disturbance and its ordinary symptoms, may put on the appearance of insanity, giving rise sometimes to unfortunate confusions that are only revealed at the autopsy. It is the same with acute meningitis (chronic meningitis is especially our own concern). Aphasia has sometimes given rise to a belief in the presence of insanity; and drunkenness, prolonged during several days, may induce divagations which persist until the consequences of the excess have passed off.

4. There is not time to speak of simulation; but it may be stated that it is scarcely ever met with except in criminals wishing to avoid their penalty.

REVIEWS.

Observations on Contraction of the Fingers (Dupuytren's Contraction) and its Successful Treatment by Subcutaneous Divisions of the Palmar Fascia, and Immediate Extension; also on the Obliteration of Depressed Cicatrices after Glandular Abscesses or Exfoliation of Bone, by a Subcutaneous Operation. By WILLIAM ADAMS, F.R.C.S., Surgeon to the Great Northern Hospital; Consulting Surgeon to the National Orthopædic Hospital. With four plates and numerous engravings. London: J. and A. Churchill. Pp. 80.

THE first part of this work consists chiefly of a *résumé* on the subject of Dupuytren's finger-contraction. The affection is common enough to attract the prominent attention of the profession, and troublesome enough to cause us to be thankful for any hint in the way of cure. Mr. Adams has laid down precise rules how the operation is to be done, and the exact methods to be adopted in after-treatment. His large chances of experience in affections of the kind lend weight to his words, and his evident success in treatment is encouraging to others. There is nothing new in the pathology, according to his showing; and, with the exception of the adoption of multiple incisions to relieve tension, nothing new in the principle of his treatment. We would warn less experienced members of the profession that there are numerous affections closely resembling this Dupuytren's contraction that are not dependent on fascial contractions at all. One of the hands figured in Fig. XIX., Plate 1, represents a little finger bent on the palm, and the distal phalanx extended in the middle. Such a condition, as it appears to us, must depend on muscular contraction; and, from dissections we have seen, such a condition as is here figured arises from muscular contraction only. This is, however, an excellent treatise on and *résumé* of the subject, and will do good by reducing the treatment to exact steps.

As regard the second part of this work, on Depressed Cicatrices, we are at a loss to understand it. The author's description and illustrations do not correspond, and we must confess ourselves completely at a loss as to his meaning. What he means by “everting the cicatrix, as it were,” and then “passing needles so as to maintain the cicatrix in its everted and raised form,” is impossible to tell. Nor do we believe that the principle advocated would eradicate the cicatrix. It seems to us that there is danger of sloughing, and almost certainly a permanent discolouration would be induced in the part.

Eye-ball-Tension: its Effects on the Sight and its Treatment.

By W. SPENCER WATSON, F.R.C.S., Senior Surgeon to the Royal South London Ophthalmic Hospital. With woodcuts and illustrative cases. London: H. K. Lewis. 1879. Pp. 70.

THAN the subject of Eye-ball-Tension, commonly called glaucoma, there is no more important subject in ophthalmology; and the least scrap of information is of importance. A publication of such a nature as this will encourage many a hard-worked practitioner to look into the subject much more narrowly than when presented in a less handy form—say in one of the large text-books.

The rapidity with which the eye is lost in glaucoma renders it imperative for every practitioner to execute prompt treatment; and had Mr. Watson presented the result of his experience in a tabulated form for easy retention by the memory, he would have added to the value of his work.

The author's language is at times racy, but again at times too highly technical for all but professed ophthalmologists. He ought to remember that the danger of losing eyes from *tension* occurs almost wholly in the practice of general practitioners, not amongst professional ophthalmologists, consequently his language ought to be as little technical as is consistent with use. The recent discoveries of eserine and pilocarpine as drugs are no doubt important, and, as shown, may do good, but it is dangerous to proclaim their doubtful benefit in too high terms. The ordinary practitioner, not accustomed to perform iridectomy, and dreading the operation, may, resting satisfied with such drugs, lose many an eye.

We congratulate Mr. Watson on the persistent use of the term eye-ball-tension instead of glaucoma: it indicates the

disease, and not a symptom only. Although it appears to us from the author's description that several diseases are included under the term "tension," still they seem all to be capable of improvement by a timely iridectomy, which still holds the first place amongst the many known operations.

Smith's Physicians' and Surgeons' Visiting List. Long-acre. THIS tried old friend comes, with its inexorable regularity, to warn us that a new year looms in the immediate distance, and to provide us with its usual help and aids. With more, indeed, for to the Visiting List for 1880 have been added tables giving the equivalents of the Fahrenheit, Réaumur, and Centigrade Scales; a Table of the Principal Poisons and their Antidotes; and one giving the Periods of Incubation of the Eruptive Fevers.

The Boy's Own Paper.

THE BOYS' OWN PAPER has now been in existence many months, and its first volume, very handsomely and tastefully bound in cloth, has been issued under the title of "The Boy's Own Annual." The paper, as it appeared week after week, has more than kept up the high character and tone of the first numbers, which we noticed in February last, and the volume is one to delight a boy's heart. In all its articles, on sports, pastimes, amusement, instruction, etc., and in its stories, the publication is thoroughly good and pure of tone; and, to pick out only one or two of the subjects dealt with—for we cannot spare space for more—the instructions on Learning to Swim are, we think, the best we have ever met with; and the articles on Weather Forecasts are very clear and instructive. The work reflects great credit on both the able editor, Mr. James Macaulay, and on the publishers; and we are glad to know that it has commanded the remarkable success it so well deserves.

GENERAL CORRESPONDENCE.

THE DISTINCTION BETWEEN TYPHUS AND TYPHOID.

LETTER FROM DR. A. P. STEWART.

[To the Editor of the Medical Times and Gazette.]

SIR,—My reply to Dr. Perry is unavoidably postponed till next week, when I trust you and your readers will be of opinion that my defence is a satisfactory one.

I am, &c., A. P. STEWART.

Grosvenor-street, W., December 10.

LOWER THAMES VALLEY SEWERAGE.—The notice given by the Lower Thames Valley Main Sewerage Board states that they intend to put forward an application at once to the Local Government Board for a provisional order enabling them to put in force the provisions of the Lands Clauses Consolidation Acts, 1845, 1860, and 1869, with respect to the purchase and taking of lands, otherwise than by agreement, for the purposes for which their Board was formed, and also to enable them to construct works for the purification, utilisation, filtration, and disposal of the sewage of the said district, together with powers for the erection of pumping and lifting stations, tanks, machinery, and plant, and generally for carrying out a system of sewerage for their district. With patience we may at last hope to see the day when the Lower Thames Valley is in possession of a sewerage system.

DEATH OF PROF. A. CHEVALIER.—The oldest member of the Académie de Médecine, M. Chevalier, has just died in the eighty-seventh year of his age, having been elected in the year 1824. He had been also a Professor of the Ecole de Pharmacie, and was editor of the *Journal de Pharmacie* for many years. He was one of the most active of the members of the Conseil de Salubrité, and few men have done more than him in originating improvements in public hygiene, especially as regards alimentary substances. His reports to the Academy on mineral waters, secret remedies, and various hygienic subjects, and his articles in the *Annales d'Hygiène*, constitute an enormous mass of writing of great practical utility.

REPORTS OF SOCIETIES.

THE CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 28.

E. H. GREENHOW, M.D., F.R.S., President, in the Chair.

(Continued from page 653.)

EXCISION OF BOTH HIP-JOINTS FOR SYMMETRICAL DISEASE (?) —FEMORAL NECROSIS—ANTISEPTIC OPERATIONS—SUCCESSFUL RESULT.

MR. J. CROFT read notes of this case. A. G., aged four, was admitted under the author's care in St. Thomas's Hospital on January 3, 1879, for hip-joint disease on both sides. Two years previously she had fallen downstairs. She had limped during the last eleven months, and complained of pain in both hips and knees. She had been under treatment at St. Thomas's Hospital as an out-patient for three months, and afterwards at the Children's Hospital in Waterloo-bridge-road. She had suffered more or less from starting pains at night for eight months, and as much in one leg as the other. On admission she was miserably thin and in bad health, and she was suffering from ulcerations of the cornea (strumous ophthalmia), as well as from the hip disease. There was well-marked muscular rigidity at each joint; attempts at movements caused pain. The thighs were somewhat flexed on the pelvis, and the legs on the thighs. The feet were rather everted. Spurious lordosis existed. There was no extensive swelling, and there was not any shortening. She was allowed a good diet, with wine, and she was carefully nursed. The keratitis was treated and cured. The limbs were straightened and a modified double Thomas's splint adapted. Extension was maintained either by weights or elastic bands. During the month following her health steadily improved, though she suffered somewhat at night, and cried occasionally from starting pains. On February 26, or between seven and eight months after her admission, a collection of fluid was discovered between the great trochanter and the anterior superior spine of the ilium. About a fortnight later, or two months and a half after her admission, an attempt was made to evacuate the collection, or abscess, by the aspirator. A small quantity of thick puriform fluid was drawn off. Six months after her admission and seventeen months after she was first observed to limp decidedly, she was still suffering from muscular rigidity and occasional spasmodic pains in both joints. Fluid had re-collected on the left side. It was therefore determined to excise the joints, and to operate on the left side first. On May 17 the left joint was excised antiseptically and, as it has been termed, sub-periosteally. The antiseptic treatment was well carried out by the house-surgeon, Mr. Castle, and the dressers, Messrs. Hoker and Panisty. Three weeks after the first operation the right hip-joint was excised (on June 7) in the same way. The wound on the left side healed in about five weeks' time, and the right side rapidly followed the example of the left. With regard to the parts removed at the operations, on each side the femur was sawn across at the level of the base of the great trochanter. The surface of the acetabulum was freshened by means of the gouge. The remaining cartilage and the granulations were cut away with the same instrument. The synovial membrane and its granulations were dissected out, and the lining membrane of the abscess on the left side was removed. The surfaces remaining after these procedures were carefully washed with carbolic solution, and a solution of chloride of zinc (40 grains to 3j.) was applied to them. A double modified Thomas's splint was employed in the after-treatment, and extension kept up by india-rubber bands. Passive movements were commenced after the third week. (The parts excised were shown to the meeting.) The parts from each side might be divided into four—(1) The epiphysis or capitellum; (2) the main mass, consisting of the neck and top of the femur; (3) pieces of synovial membrane and bone cut out from the acetabulum; and (4) small pieces of detached dead bone. The epiphysis was found separated at the epiphysial line from the neck of the bone. On the left side its upper surface was for the most part bare, and small pieces of dead bone were adhering to it, and its under surface was irregular where it had separated from the epiphysial cartilage. The upper end of the neck of the

Bone was bare; small crumbs of dead bone were lying upon it and adhered to it. Some of these pieces had become detached unavoidably during manipulations. No trace of epiphysal cartilage remained. The bare condition of the neck was owing to the fact that the operation was done sub-periosteally. It would be noticed that none of the trochanteric epiphysis remained on the specimens. That process was preserved to the lining, and left attached to the gluteal muscles. The parts from the right side exhibited very similar changes, which were there more demonstrable. The separation between the epiphysis and the neck was easily seen, though they were still loosely connected. Two small sequestra might be seen deeply embedded in the neck of the bone, and a piece of dead cartilage was hanging by a thread of tissue to the epiphysis. The synovial membrane was swollen and the peri-synovial tissues infiltrated; but their condition did not appear to be that of synovitis hyperplastica tuberculosa. The state of the parts justified the opinion that there was symmetrical separation of the epiphysis on each side, and necrosis. The author's objects in showing this case were as follows:—

1. To illustrate the value of operating early in hip-joint disease, before the third stage had advanced.
2. The value of operating antiseptically.
3. The value of removing the parts freely.
4. The value of leaving the great trochanter attached to the muscles which are fixed to it.
- And 5. The case being rare and interesting from its being one of double disease, and from the disease being symmetrical (?).

The author then went on to remark: 1st. *Early Operation*.—As the disease had been in progress for eleven months or more, it cannot be said that in point of time the operation was performed very early. It was not a case of acute necrosis of the epiphysis. That disease is attended by urgent symptoms, and should be treated by very early operation. The case belongs to the chronic form of arthritis. I consider that the inflammatory changes began in the bone, and that the osteitis terminated in necrosis and caries. This osteitis necrotica led to inflammation of the joint tissues. The osteitis and arthritis combined to disorganise the joint. Had the case been allowed to take its course uninterrupted by operation, the surgeon following the routine treatment recommended for the second and third stages of hip disease—viz., rest, splints, opening abscesses as they arise, and so on—the child must have continued to be the victim of disease and suffering for many months, and probably for several years. The joints must have become stiff and immovable. This would have been a favourable course under the circumstances. She might have succumbed to tuberculosis of lungs or membranes of brain, or to amyloid changes in the abdominal viscera. I repeat that this case demonstrates the immense advantages which may be obtained by operating in good time.

2nd. *Antiseptic Operation*.—Without antiseptic precautions the operation of excision of this joint is followed by some febrile disturbance and numerous painful dressings. In this case we were successful in maintaining the antiseptic system. A reference to the temperature-chart shows that absolutely no febrile movement ensued. I believe the child was in the matter of temperament an uncommonly favourable subject. She began laughing and playing soon after the immediate effects of the operation had subsided. Where there is reason to fear that the disease for which the operation is about to be undertaken is of a tubercular character, it is of consequence to prevent the induction of high temperature—that is, to avoid sharp febrile attacks. High temperature appears to be favourable to the rapid propagation of tubercular changes.

3rd. *The value of Removing the Diseased Parts freely*.—I attribute the good results in this case partly to having made the section of the femur on each side through undiseased bone, and to having dissected out or destroyed by chloride of zinc the remains of the diseased synovial membrane. A common cause of failure after excision of articular ends of bones is that of not putting away all morbid bone or synovial membrane—in other words, of not having made the section through uncontaminated bone.

4th. *The Gluteal Muscles were not Severed from their Connexion with the Great Trochanter*.—The attachment of the gluteus maximus to the great trochanter was split longitudinally, and the process of bone was also bisected, but the trochanter and its muscles were not separated. The trochanter has renewed its attachment to the shaft of the femur. To this I attribute the fact that this child has such remarkably good movements at the joint. She can abduct the leg, invert the foot, and flex the thigh on the pelvis to a great

extent. There is no fear of bony ankylosis in her case.

5th. *With regard to Propriety of Excision in Hip Disease*.—Some surgeons still see many objections to excision at this joint, looking upon the operation as almost always fatal and hopeless. I do not agree with those who condemn the operation. I have now performed excision of this joint forty-five times. An analysis of my cases encourages me to continue the practice, and to practise the operation *early*. I would on this occasion direct attention to one result of an analysis of these cases. It is one which bears on the case before us this evening, and it is this:—*Twenty-one* of the cases were instances of necrosis either of the top of the femur or of the acetabulum. I hold that if a surgeon knows that there is a piece of dead bone shut up in a joint, he should perform an operation for the removal of that piece of dead bone. If a surgeon knows that a loose cartilage is irritating a joint, he takes steps to remove that body in the safest manner possible. It appears to me that there are more cogent reasons for removing dead bone from a joint. I would condemn in the strongest terms the practice of leaving these cases of hip-joint disease unexplored and unrelieved.

6th. *Are there any Signs or Symptoms which may be taken to indicate certainly the Presence of Dead Bone in Hip-joint Disease?*—Excluding acute inflammation of the joint, which presents very positive symptoms and signs, and limiting my remarks to chronic cases, I would say that those cases in which the symptoms are traced to an injury, and in which the signs and symptoms progress slowly and without hyperplastic swellings, are probably instances of necrosis. A case in which the disease has advanced slowly in that way, and in which a collection of fluid (or abscess) has slowly formed, is most probably one of necrosis.

7th. I venture to submit the following formulæ as *Guides to Operating*:—

1. When there is fluid in the joint, antiseptic incision should be made as if the surgeon intended to excise, and he should only desist on finding the articular structures in a condition from which they could rapidly recover, and yield a movable joint.
2. When pus is known to be present, even if the surgeon is uncertain with regard to the state of the bone, he should excise.
3. If the surgeon is certain that necrosis has occurred, he should certainly excise.

Mr. BRYANT said the whole question of the excision of joints was opened up by this paper, and several very important points illustrated in it. The case he considered one of simple osteitis, not acute, and of a nature similar to nine-tenths of the infantile cases met with. The mischief was not synovial, but a good typical subacute one. That the operation performed was a proper one, under the circumstances, no one could doubt. The disease had assumed a marked character; and he thought that the *stage* of the disease, and not *time* merely, should indicate operative interference. He could not understand how Mr. Croft could describe his operation as a sub-periosteal one, for necrosed bone must be devoid of any such covering. In the case under notice, Mr. Croft did wisely in preserving the trochanter, and as much periosteum as possible—it being the imperative duty of the surgeon to save as useful and movable a joint as possible; but this carefulness might be carried to an extreme. He had never satisfactorily succeeded in sub-periosteal operations for excision, and regarded the term as a mere ornamental expression to which no actual meaning could be attached. Such an operation could only be performed on a healthy subject, and therefore must of necessity be an improper one. He strongly dissented from Mr. Croft's opinion that it is right to cut down into a joint, except on the strongest clinical evidence of disease, and the existence of pus. He felt he ought not to enter on the large question of antiseptic surgery, but he could not assent to everything urged on its behalf. He thought excision should be done where the existence of necrosis was quite certain, but as long as the head of the femur is in the acetabulum it is not possible to tell with certainty if dead bone exists or not. With indubitable proof of this, it is right to cut into the joint, and follow this up with resection. He would like to know more concerning the *early* incision mentioned in the paper. He doubted its propriety, and further again questioned the accuracy of arranging hip-diseases into such *stages*. He had been disappointed with the results of resection in his own practice. There were but a few really excellent results, the limb resected, in the majority of cases, being only a poor substitute for a perfect one. In a very large number of cases, he admitted, no good result ensued, in consequence

of delayed treatment, and this might be urged in defence of *early* operation. Alluding to antiseptic surgery, he feared that its introduction had induced the undertaking of operations not sanctioned by every-day experience; joints, for instance, being nowadays too freely opened, because of the confidence felt in the protective spray and dressings. In many instances cases have been undoubtedly interfered with, which might have been permanently cured by time and rest. As a surgeon of the pre-antiseptic period, he did not like to witness the readiness with which action was taken under the new system. He wished to hear more from Mr. Croft in reference to *early* interference.

Mr. HULKE congratulated Mr. Croft on the brilliant results he had attained. The history of the case proved that unfavourable conditions had existed, the child not having had the advantage, for one thing, of perfect rest. Operation, he held, should be resorted to as soon as possible after it is evident that necrosis is established in the joint. The determination of this time is, however, a very difficult matter, and he felt convinced that, unless there were a conviction that the fluid collected was really pus, no interference ought to take place. Even with pus collected, free incisions were often sufficient to insure a good recovery, so that even pus did not of itself indicate the necessity for excision. He agreed with Mr. Bryant that, considering the magnitude of the operation, but a small mortality attended it; but much disappointment must be felt at the dwarfed nature of the limb that is the usual result of it. He endorsed the remarks made by Mr. Bryant concerning sub-periosteal excisions, and had listened with much interest to Professor Sayre's defence of this method some time since, when that surgeon was in England. He did not, however, feel satisfied that the periosteum was thereby preserved to an extent commensurate with the expectations which might be formed from descriptions of the operation. All cases of this disease, even acute ones, would, he considered, eventually recover if submitted sufficiently early to treatment. In extreme cases he advocated free incision, but had never seen anything but harm follow the employment of the aspirator in hip-joint disease.

Mr. PARKER did not think the case could be rightly described as an *early* one. He noticed that on the charts exhibited, the temperature was recorded once as 100°, and varied for some time from 99.4° to 100°. He was of opinion that a better classification of hip diseases was desirable in the interest of young surgeons, to guide them in the treatment to be adopted, especially since the disease runs very varying courses. Under the most careful treatment he had seen children progress from bad to worse, and in many had observed that the disease attacked also the side opposite to that first implicated. In five out of eight cases in which he had operated, he had removed sequestra of dead bone. He felt uncertain as to the best mode of incision. In his own practice he adopted what he termed the antero-lateral incision. In making it he cut in the *direction of*, and not *across*, the muscular fibres, thus insuring the best results. Then with a keyhole saw introduced from above, down, and in, he was enabled to separate the head of the femur without disturbing the trochanter, or injuring the periosteum or muscles. In reply to a question from Mr. Hulke, Mr. Parker said that in the five cases he referred to the dead bone was in the form of loose sequestra; and further confirmed his statement by producing the fragments for the inspection of those present.

Mr. BRYANT remarked on the unusually frequent occurrence of necrosed bone in Mr. Parker's practice. In his own experience of about fifty cases he had not so many. He hoped Mr. Parker would bring forward a record of his cases.

Mr. JONATHAN HUTCHINSON said that in his experience the separation of the epiphysis had been a rare event; he had seen it in only four or five instances. He agreed that disappointment usually resulted from the operation for excision. He had witnessed many cases in which the most dexterous surgeons had operated, but had never been enthusiastic in favour of the proceeding. In many successful recoveries at the time, the patients had succumbed at longer or shorter intervals after; and many operations had entirely failed of any good at all. These had mostly been cases of late operative interference. He thought they might help to sustain Mr. Croft's dictum, that the early adoption of radical measures of cure is essential in these cases. The use of plaster-of-Paris dressings to insure perfect rest might, he thought, be desirable; but he had seen the most marked

benefit occur through the influence of change to seaside places, and, further, placed much reliance on counter-irritation over the seat of the affection in the early stage, before they would be justified in making an incision into the joint. He recommended the covering of the whole joint in such treatment with tincture of capsicum, over which an oiled silk protective should be laid, and the whole permitted to remain for half an hour. He concluded by adding his congratulations on the successful result of Mr. Croft's operation.

Mr. MARSH had seen, he said, many excisions at the Children's and St. Bartholomew's Hospitals. The results were not encouraging. Out of 100 or 120 cases he could only point to six or seven entirely good results. This, he admitted, might be due to late operation and non-antiseptic treatment. His experience was so unsatisfactory that he would only with reluctance resort to the operation. At St. Bartholomew's it was only attempted three or four times a year. He objected that it was not possible to draw any conclusion from a single case as to the wisdom of the proceeding, but willingly admitted that the one brought forward by Mr. Croft was remarkable for the success attending it. He wished that gentleman would show and detail the histories of as many as possible of his forty-five cases. He agreed that necrosis is comparatively rare in hip-disease, the condition of the bone noted being generally caries; of this carious material, part must remain after operation, as its entire removal would involve the taking away of some three or four inches of the femur. It was certainly true that neglect alone gave a formidable aspect to the disease. In all cases, if resorted to early enough, sea-air and counter-irritation might be expected to work a cure. He knew cases, even, in which recovery had followed the existence of sinuses, the children being now able to walk about freely. He suggested that the child shown by Mr. Croft should be kept in sight, and brought before the Society hereafter. It might then be found that its power of locomotion had suffered. He thought that good *did* sometimes follow the use of the aspirator, having seen it employed with advantage. The objection that blocking of the tube frequently occurred might be got over by employing one of sufficient calibre.

Mr. CROFT explained that by *early* operation he meant interference at a stage later than that in which no perceptible effusion into the joint had taken place. This condition, he should term the *incipient* stage. If treatment by rest were then adopted a favourable termination was certain. In the case he had recorded, however, the disease had progressed for seventeen months. The division of the disease into the stages adopted by Sayre and other surgeons was useful for descriptive purposes; as in syphilis, it was found convenient to speak of various conditions as stages. The first stage in hip disease terminated with effusion into joint; the second extended from the effusion to the opening of the abscess; the third from this point to the end. Thus a child in the second stage was, in a pathological sense, only in an early stage of the disease. He had confidence in the wisdom of incision into the joint, and especially since the splendid results of antiseptic treatment justified such a course. He urged that when the signs observed give evidence of extensive degeneration it was incumbent on the surgeon to make incisions at times, not alone to verify his assumptions, but to afford ease to his patient; and especially so, considering the absolute certainty of healing that attends operations performed with minute antiseptic precautions. The term *sub-periosteal* he had employed for want of a better to express his meaning. He had used it as explanatory of his method of procedure. The neck of the femur, he continued, can be turned out without the removal of any periosteum, since this is absent from the head of the bone, and hence he could not be said to speak of it in connexion with that process. By the *antiseptic method* he meant Listerism pure and simple, and admitted no other system. Unsatisfactory results were all attributable to late operative interference. As to dead bone, he could not say there were any definite signs to indicate its presence, and had referred to it, therefore, in guarded language. He had not employed the aspirator to draw off fluid from the capsule of the joint when only serum existed. He thought favourable results might ensue from tapping. That it was unwise to generalise from a single case he admitted, but had adduced a number of cases to sustain the conclusions he had formed. He believed the child exhibited would gradually acquire a new joint, on which it would be able to balance and walk.

On the suggestion of Mr. Hulke and the President, Mr. Croft undertook to bring a record of all his cases before the Society; and Mr. Parker also promised to read reports of the cases to which he had referred in discussion at a future date.

THE PATHOLOGICAL SOCIETY.

TUESDAY, DECEMBER 2.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

VARIOUS BONE LESIONS IN CONGENITAL SYPHILIS.

DR. NORMAN MOORE showed a calvaria from a case of congenital syphilis, from a female child, seven years of age, who had died of tubercular meningitis. The skull-cap showed general roughening and thickening, chiefly in the parietal regions, but also in the upper parts of the frontal and occipital bones. There was a depression on each side of the coronal suture. The incisor teeth were deeply notched, but there was no other evidence of syphilis, and none of rickets. A caseous mass, the size of a walnut, was found in the right lobe of the cerebellum; there were also caseous bronchial glands, and ulceration on each side of the ileo-cæcal valve, without tubercle. The lungs were infiltrated with recent tubercle; there were in the œsophagus two rounded scars, perhaps of a syphilitic origin. Dr. Moore thought the cranial lesions in this case were probably syphilitic, though that view was open to question. Dr. Moore showed also a skull, the lesions of which he thought were probably not syphilitic. It was that of a child six years of age, who had died from ulceration of intestines, with caseous masses in the lungs and mesenteric glands. The incisors were slightly notched, and there was some puckering about the anus. There were small worm-eaten patches on the inner table of the skull-cap, corresponding with villous processes in the dura mater. What was the explanation of these?

Dr. ALLEN STURGE had recently seen somewhat similar appearances in the inner table of the skull of a young man who had shot himself in the forehead, and died a month afterwards of hernia cerebri and abscess. In the speaker's opinion the dura mater had in that case been separated in places by the effects of the blow, and thus nutrition of the inner table had been interfered with, and caries and absorption had resulted.

Mr. R. W. PARKER also showed specimens of bone-disease in congenital syphilis, obtained from an infant seven weeks old. There was a conclusive history of syphilis, and, besides the bone lesions, there had been dermatitis on the nates, and condylomata around the anus. The bones affected were:—1. The calvaria, which was asymmetrical, and presented patches of what Parrot described as "gelatiniform degeneration." This differed from cranio-tabes in presenting a worm-eaten or eroded appearance on *both* aspects, inner and outer; and furthermore the disease did not occur in this case on those places which were subjected to pressure, as did the tabetic form, but well above the line of pressure as the child lay in its bed. 2. Changes in the long bones of the limbs, evidently not of a periostitic nature, for the periosteum could be peeled off without any difficulty, and when peeled off it did not present any obvious changes in its structure. They were instances rather of osteitis, and belonged to Parrot's hypertrophic form of disease. They were most marked on the humeri and the tibiae, but the ulnæ and fibulæ were also affected. The disease had been materially lessened by a vigorous mercurial treatment. He believed that the administration of mercury exercised a marked influence on the number and nature of the bone lesions in congenital syphilis. He had not observed any affection of the spleen in any of these cases, and had come to regard it as less frequent in its occurrence than had been recently indicated.

Dr. BARLOW showed specimens of crania and long bones in further illustration of hereditary syphilis, and remarked upon the great variety of forms which these lesions assumed. The first cranium was one of M. Parrot's specimens; the other crania and long bones were from cases under his own observation. No. 1 showed the atrophic lesion due to gelatiniform transformation of a portion of one parietal bone. It showed the same disease as Mr. Parker's case, but the stage was earlier. A limited portion of the outer table presented a smooth eroded surface, quite different

from the worm-eaten caries seen in adult cranial syphilis. In Mr. Parker's specimen the process had gone on to complete perforation of the bone from without inwards. The atrophic lesion in the cranium, as pointed out by M. Parrot, was found in younger infants than in those where the commoner hypertrophic form occurred, which was characterised by the bony swellings round the anterior fontanelle. Dr. Barlow had also brought two specimens of the hypertrophic form associated with spots of cranio-tabes, more especially to show the difference between spots of cranio-tabes and the perforations in Mr. Parker's specimen due to atrophy subsequent to gelatiniform transformation. As to position, it was shown that the cranio-tabes spots were situated further back, most commonly being near the posterior inferior angles of the parietals, and more on one side generally than the other. In Mr. Parker's specimen the perforations were near the middle line, and not in dependent positions at all. In the cranio-tabes spots the loss of substance was on the *inner* table; the exceedingly thin lamina still remaining was quite continuous with the rest of the *outer* surface of the cranium. In the atrophic lesion the process of destruction was from without inwards. In a paper recently published, M. Parrot had shown that in the production of cranio-tabes there were three conditions to be considered—(1) the softness of the skull; (2) the decubitus of a weakly child lying with its head against a resisting body—the cradle, or the arm of the nurse; (3) the weight of the brain bearing especially on the posterior part of the cranium. M. Parrot had come to the conclusion that the acquired form of cranio-tabes was only found in syphilitic children. In addition to the acquired form, which had been long known, M. Parrot had described also cases of congenital cranio-tabes. These differed from the acquired form in two ways—(1) The thinning and perforation, though extending from within outwards, was accompanied by bulging outwards of the external plate into small dome-shaped eminences. (2) The position of the spots was different; in the congenital form they were situated near the anterior fontanelle, where, in the later period of pregnancy, the downward pressure would be greatest. The syphilitic nature of the congenital cases had not been proved, but it was very significant that most of them were in premature births, and that the infants died in a very few days of marasmus. Dr. Barlow also brought two specimens of disease of the growing ends of the shafts of long bones from syphilitic children. No. 1 was from a child six months old, and showed a section through the knee-joint of the femur and tibia. There was gelatinous transformation of the growing end of the shaft of each of these bones for about half an inch, at a distance of a few lines short of the attachment of the epiphysis. No. 2 was from a child four months old, and showed slight displacement of the lower epiphysis of the radius, which owed its origin to the same kind of lesion as in No. 1. In this child the characteristic symptom of pseudo-paralysis of the wrist had obtained during life. One of the names given to this disease (which was now pretty well known clinically) was syphilitic perichondritis. But Dr. Barlow pointed out that the lesion was primarily an endosteal one. In the first specimen there was neither periostitis nor perichondritis; and in the second, although there was periostitis, it was slight in amount and distant from the lesion in question. In Mr. Haward's specimens of this disease, shown to the Society two years ago, there was also no periostitis. Another name sometimes used—viz., syphilitic disease of the epiphyses—was also objectionable, because, as the specimens showed, strictly speaking, the epiphyses were not affected at all, except in so far as they sometimes suffered displacement in consequence of the softening at the growing end of the shaft becoming very pronounced. He considered Dr. Moore's first specimen as probably syphilitic, but was inclined to think his second case was not of that nature.

Mr. W. HAWARD remarked that although there might be a great variety of the lesions found in congenital syphilis, yet several varieties might occur in the same case. Thus the case of "epiphysial" disease he had formerly exhibited showed also thickening of the shaft of the bone. Mr. Macnamara had thought that the changes in the shaft were due to periostitis, but the speaker disagreed because the periosteum peels off readily, and has a perfectly normal appearance, which would hardly be the case if it were the seat of an ossific deposit. Though the term "epiphysial"

was hardly the correct one, it was not inconvenient, as expressing the important fact that the lesions near the epiphyses tended to detach these, and hence arose the important clinical fact of the inability to use the affected limbs. He agreed with Mr. Parker as to the great value of mercurial treatment in such cases, for though he had had many cases under his care, not one of them had died except the case he had just referred to, and death was there due to acute bronchitis, and not to the syphilis. Another point in regard to congenital syphilis was the fact that when the bone-changes were prominent other syphilitic symptoms and lesions were not at all marked. Thus the child referred to, though belonging to a very syphilitic family, had itself no strong evidences of syphilis beyond the osseous lesions, yet a sister had died with extensive visceral lesions.

Mr. PARKER also showed, as a living specimen, a girl, aged fourteen years, who was the subject of extensive hyperostoses of the lower jaw, of the clavicle, of the humeri and forearm, and of the tibiae and fibulae. She was an orphan, and hence it was impossible to get any reliable family or personal history. The patient had applied for advice on account of the constant aching pain which was experienced in these nodes. All pain quickly yielded to anti-syphilitic remedies. Some of the nodes had also diminished in size (notably that on the left clavicle), while others had continued to grow. They had only been noticed for five or six months, and had appeared without any assignable cause. The girl presented no other symptoms whatever of the disease. He asked for an expression of opinion on the part of the Society as to the real nature of these lesions.

The PRESIDENT showed a specimen of the crown of a milk tooth which was exfoliated in a case of congenital syphilis brought under his notice by Mr. Parker. Inflammation, followed by abscesses, occurs frequently in these cases in connexion with the dental sacs, preferably those of the central incisors, as he had pointed out before the Society some years since. He had lately met with a similar instance in another syphilitic infant. As to Dr. Moore's specimens, he thought that in both cases the teeth were suspicious, especially in the first case, but not quite characteristic as seen in congenital syphilis in either. As to Mr. Parker's living specimen, he thought the hyperostoses were really syphilitic nodes, but he had never before seen so large symmetrical nodes on the lower jaw. Moreover, it was rare that such nodes should develop so late in life as in this case without previous evidence of the inherited taint. But the state of the long bones in this case was quite sufficient to establish the diagnosis, and he had not seldom seen multiple periostitis develop late. The explanation of these late changes, he thought, was that in infant life most of the tissues were affected by the syphilitic poison, that a lull then took place, and after an interval an outbreak occurred, when often very large nodes were developed, along with so remarkable brittleness of bone sometimes as to lead to fracture by ordinary muscular exertion.

Dr. WILTSHIRE remarked on the frequency of asymmetry of skulls in infants and adults where there was no suspicion of hereditary syphilis, and the specimen which Dr. Barlow had exhibited from M. Parrot's collection showed very fairly, he thought, this frequent physiological asymmetry in the commonest form, in which one frontal bone is in advance of its fellow, with a corresponding backward development of the opposite occipital. In about 60 per cent. of the cases it was the right frontal that was in advance. In a small percentage only of all skulls was there perfect bilateral symmetry. The palate also shared in this natural asymmetry. This asymmetry of the skull was found even in cases delivered by Caesarian sections, and, indeed, the brain usually showed a slight degree of asymmetry of the hemispheres. Syphilis, however, might exaggerate this natural tendency to asymmetry.

Dr. LEES said that in congenital syphilis the asymmetry was often very marked indeed, and, conversely, that the cases of marked asymmetry were usually found to have congenital syphilis. As to cranio-tabes, he believed M. Parrot was now of opinion that all tabetic cases developed after birth were of syphilitic origin; and in his own experience eight out of ten such cases were indubitably syphilitic, the other two being probably so. The speaker had seen a case of large nodes like those in Mr. Parker's living specimen, and in that case the evidence, though not clear, pointed to congenital syphilis.

Dr. MOORE asked whether the asymmetry in syphilitic cases did not result from thickening of the bones. It was, of course, well known that all skulls were somewhat asymmetrical, and in some animals—the cetacea, for example—this asymmetry was quite pronounced.

Mr. F. EVE was at present dissecting a six-months foetus got from a woman with syphilitic rectum who had aborted. The shafts of the long bones showed gelatiniform degeneration, and in many cases there was also separation of the epiphyses. The surface of the humerus was roughened with adherent periosteum, and from the tibia and fibula of one leg the periosteum had separated from the bones, which were greatly thickened. It was possible that retrograde changes followed the osseous thickening, and led to the detachment of the periosteum, for the surface of the tibia was carious.

Dr. ORMEROD asked whether thickening of the parietals, without thickening of the frontals, round the fontanelle, would be considered as one form of syphilitic change, for he had often met with such a condition in syphilitic children.

Dr. BARLOW, in reply, quite agreed with Mr. Haward that in the cases of congenital syphilitic bone-disease other signs of congenital syphilis were in some cases very slight. He had seen one case of an infant where the pseudo-paralysis was absolutely the earliest specific sign, and was followed by the appearance of snuffles and characteristic rash. Dr. Barlow thought that the extreme variety of the forms of bone-lesion was not sufficiently recognised. Besides the endosteal change and the hypertrophic form where osteophytes were formed outside the shafts, but where no thickening of periosteum was obvious, he had specimens showing definite local periostitis, with increased vascularity of periosteum and rough surface of bone quite similar to the periosteal nodes of adults. Dr. Barlow agreed in the view that Mr. Parker's living case was probably syphilitic, in spite of the absence of confirmatory evidence from the history or other signs. He had seen one case, nearly as marked, where the history gave no clue, but where the existence of double choroiditis disseminata was confirmatory. In reply to Dr. Wiltshire's observations respecting obliquity of the skull, Dr. Barlow stated that M. Parrot did not contend that all oblique skulls were syphilitic, but rather that syphilitic skulls, being softer than normal skulls, were more liable to get acquired obliquity from decubitus than non-syphilitic.

(To be continued.)

OBITUARY.

HARRY LEACH, M.R.C.P.

THE year has unfortunately been notable by the departure of many well-known faces, and to some of us not the least missed will be Harry Leach, who died at the early age of forty-three, at his house in Victoria-street. Dr. Leach was a student of St. Bartholomew's Hospital, but it was not until he had become the Resident Medical Officer of the old *Dreadnought* that he came prominently under notice. Since that time the two have been hardly ever separated. In this capacity Dr. Leach had rarely surpassed opportunities for the acquisition of knowledge; of these he fully availed himself, for though no voluminous writer on most of the subjects which came under his notice—indeed, his comparatively subordinate position prevented that—yet he was a man of knowledge on certain recondite subjects which seldom come before the majority of our hospital physicians. Early, however, he was induced to turn his attention to that scourge of the merchant navy—scurvy. And it may be said, without exaggeration, that it was mainly through the efforts of Harry Leach that the improvement in the health of this service is to be traced. He was instant, in season and out of season, in all kinds of publications, bringing before the public the evils under which these unfortunate men laboured, especially as regards all attempts to keep them free from the dreadful scourge of scurvy. His efforts were crowned with success; but, whether with a view to enabling the measure to pass more smoothly, or from his own convictions, we know not, but it has always seemed to us that Dr. Leach was too fond of relying on lime-juice alone. At best, lime-juice has always appeared to us but a poor substitute for a proper dietary. This implies no derogation from Dr. Leach's work, for it was his endeavour to do that which was right; and that his

efforts were not without their reward the Act shows. When cholera broke out in London in 1866, Leach was most active in instituting a thorough examination of all vessels arriving from suspected ports, and in providing measures for prompt relief and active segregation of those who had become subjects of the disease or of those who had been exposed to its contagious influences. It was probably the efforts so successfully carried out which led ultimately to the appointment of a Medical Officer of Health for the Port of London, a post of which Dr. Leach was the first incumbent. This implied a temporary severance with the *Dreadnought*; but the connexion was subsequently renewed in the shape of a more prominent and more honourable position—that of Visiting Physician.

We fear greatly that the post eagerly and honourably sought, of Port Health Officer, was in no small measure the means of curtailing a useful life. The fogs and damps of the river, on which and in the docks his work mainly lay, must have had a prejudicial influence on lungs not originally of the strongest; and it was from disease of the chest that Harry Leach ultimately died. He had visited—we believe, more than once—Natal and the adjoining regions during our winter, with apparent benefit; but such improvement, as is too often the case, proved delusive, and at last poor Leach succumbed. He was to those who knew him as good a fellow as stepped.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following are lists of candidates who have passed the recent examinations:—

M.D. EXAMINATION.

Bury, Judson Sykes, B.S., University College; Carrington, Robert Edmund, Guy's Hospital; Carter, William, LL.B., B.Sc., Charing-cross and St. Thomas's Hospitals; Gadsby, John Topham, B.S., University College; Glyn, Thomas Robinson, St. Bartholomew's Hospital and Liverpool; Hadden, Walter Baugh, St. Thomas's Hospital; Nicholson, John F. (Gold Medal), St. Thomas's Hospital; Paget, William Smith, Liverpool and University College; Raine, George Rolph, Guy's Hospital; Smith, Herbert Urmson, St. Thomas's Hospital; Unthoff, John Caldwell, Guy's Hospital.

LOGIC AND PSYCHOLOGY ONLY.

Buchanan, Arthur, Guy's Hospital; Cattle, Charles Henry, Leeds and University College; Edwardes, Edward Joshua, St. Mary's Hospital; Henderson, George Courtenay, University College; Lubbock, Montagu, Guy's Hospital; Phillips, Sidney Philip, University College; Silcock, Arthur Quarry, B.S., University College; Willoughby, Edward Francis, University College.

SECOND M.B. EXAMINATION FOR HONOURS.

MEDICINE.

First Class.—Smith, Robert Percy (Scholarship and Gold Medal), St. Thomas's Hospital; Williams, Dawson (Gold Medal), University College; Mackern, George (obtained the number of marks qualifying for a Gold Medal), Guy's Hospital; Gill, Richard, B.Sc., St. Bartholomew's Hospital, and Pughe, Tiaeliesin Wilim Owen, Liverpool Royal Infirmary and Guy's Hospital—equal.

Second Class.—Fuller, Thomas Warberton, Guy's Hospital; Boyd, James Stanley Newton, University College; Bond, James William, University College; White, William Hale, Guy's Hospital; Buckell, Arthur Edward, University College; Hayle, Thomas Hahnemann, Owens College and Manchester Royal Infirmary, and Hine, John Edward, University College—equal.

Third Class.—Herman, George Ernest, London Hospital, and Taylor, Harold Gilbertson, King's College—equal; Hayward, Thomas Ernest, St. Bartholomew's Hospital.

OBSTETRIC MEDICINE.

First Class.—Smith, Robert Percy (Scholarship and Gold Medal), St. Thomas's Hospital; Fuller, Thomas Warberton (Gold Medal), Guy's Hospital; Gill, Richard, St. Bartholomew's Hospital; Sheppard, Charles Edward, St. Thomas's Hospital; Herman, George Ernest, London Hospital.

Second Class.—Gabb, James Percy Alwyne, University College; Hine, John Edward, University College; Forsbrook, William Henry Russell, Westminster Hospital.

Third Class.—Williams, Dawson, University College; Taylor, Harold Gilbertson, King's College; Buckell, Arthur Edward, University College; Hayward, Thomas Ernest, St. Bartholomew's Hospital; Boyd, James Stanley Newton, University College; Pughe, Tiaeliesin Wilim Owen, Liverpool Royal Infirmary and Guy's Hospital.

FORENSIC MEDICINE.

First Class.—Taylor, Harold Gilbertson (Gold Medal), King's College; Hayward, Thomas Ernest, St. Bartholomew's Hospital; Sheppard, Charles Edward, St. Thomas's Hospital.

Second Class.—Pughe, Tiaeliesin Wilim Owen, Liverpool Royal Infirmary and Guy's Hospital; Sainsbury, Harrington, University College; Smith, Robert Percy, St. Thomas's Hospital; Barling, Gilbert Harry, St. Bartholomew's Hospital, and Hine, John Edward, University College—equal.

Third Class.—Bond, James William, University College; Hayle, Thomas Hahnemann, Owens College and Manchester Royal Infirmary; Maylard, Alfred Ernest, Guy's Hospital; Colquhoun, Daniel, Charing-cross Hospital.

B.S. EXAMINATION.

First Division.—Boyd, James Stanley Newton, University College; Maylard, Alfred Ernest, Guy's Hospital; Pughe, Rhinallt Navalaw ap Joan, Liverpool Royal Infirmary.

Second Division.—Bond, James William, University College; Jones, Thomas, Guy's Hospital; Williams, Dawson, University College.

B.S. EXAMINATION FOR HONOURS.

Second Class.—Jones, Thomas, Guy's Hospital; Boyd, James Stanley Newton, University College.

Third Class.—Bond, James William, University College.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members of the College having undergone the necessary examinations for the Fellowship at the half-yearly meetings, terminating on the 29th ult., were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and at a meeting of the Council on the 11th inst. were admitted Fellows of the College, viz.:—

Andrew, George, L.R.C.P. Lond., Egham, of St. Bartholomew's Hospital diploma of Membership dated January 21, 1874.

Hensman, Arthur, L.R.C.P. Edin., Harley-street, of University College Hospital; November 14, 1866.

Johnson, John, M.B. Melb., Melbourne, of Guy's and London Hospitals; January 31, 1876.

Miller, Richard Shalders, M.B. Lond. and L.S.A., Gower-street, of University College Hospital; August 1, 1877.

Robson, Arthur William Mayo, L.R.C.P. Lond., Leeds, of the Leeds School; July 21, 1874.

Seven candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for twelve months.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 4:—

Baker, William James, Millbrook, Southampton.

Harper, Charles Frederic, Stowmarket, Suffolk.

Jones, William, Aberystwith, South Wales.

King, Ernest Edward, Saffron Walden.

Redmond, Walker, Grange Loughgall, Ireland.

Runnalls, Harry Boyle, New Quay, Cornwall.

Stansby, Charles John, 154, Hoxton-street, N.

Walker, Robert Spencer, Hebden Bridge, Yorkshire.

Williams, William, Llwydceod, Aberdare.

The following gentlemen also on the same day passed their Primary Professional Examination:—

McDonagh, James Samuel, University College.

Papillon, James William, St. Thomas's Hospital.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

WHARRY, ARTHUR, M.R.C.S. Eng.—House-Surgeon to the Great Northern Hospital, London, N.

BIRTHS.

CAMPBELL.—On November 30, at 40, Wellington-square, Hastings, the wife of William Campbell, L.R.C.S., of a daughter.

DUNKIN.—On December 5, at 110, St. Martin's-lane, Charing-cross, the wife of Silas Dunkin, Surgeon-Dentist, prematurely, of a daughter stillborn.

GRIFFITH.—On December 8, at 9, Lupus-street, St. George's-square, S.W., the wife of G. de Gorrequer Griffith, M.D., of a daughter.

JONES.—On December 8, at 19, Chapel-street, Belgrave-square, the wife of T. Ridge Jones, M.D., of a son.

MORGAN.—On November 8, at Fatehgarh, the wife of Surgeon-Major Jerome Morgan, A.M.D., prematurely, of a son.

PHILLIPS.—On December 7, at Bromley, Kent, the wife of Robert Edward Phillips, M.D., of a son.

STEWART.—On November 28, at South Kensington, the wife of Howard Douglas Stewart, L.R.C.P., of a son.

WIGMORE.—On December 9, at 130, Inverness-terrace, Hyde-park, W., the wife of William Wigmore, M.R.C.S., of a daughter.

WRIGHT.—On December 5, at Hartford, Northwich, Cheshire, the wife of Strethill H. Wright, M.D., of a son.

MARRIAGES.

BERNAYS—WESTON.—On December 4, at Lewisham, Herbert Leopold Bernays, M.R.C.S., of Old Charlton, to Sarah Jane, eldest daughter of John Weston, Esq., of New Cross.

BOOKEY—SCHWEINSBERG.—On November 25, at Bremhill, Wilts, the Rev. P. Bookey, M.A., eldest son of J. W. Bookey, M.D., of Ballyisland, Carnew, County Wicklow, to Hedwig Maria Louisa Dorothea, daughter of General A. D. Baron von Schenk zu Schweinsberg, of Hesse-Cassel, Germany.

FLINT—FOX.—On December 4, at Croydon, Arthur Flint, L.R.C.P., of Westgate-on-Sea, to Amy, youngest daughter of Charles Fox, Esq., of Park Hill, Croydon.

LYCETT—THURLBY.—On December 4, at Kensington, son of John Lycett, M.D., of Scarborough, to Emily Frances, only daughter of the late J. M. Thurlby, Esq., of Ranceby Heath, Sleaford, Lincolnshire.

MACLEAN—NELSON.—On November 22, at Cairo, T. Edwin Maclean, M.B. Lond., of Cairo and Luxor, to Edith Hector, youngest daughter of the late John Nelson, Esq., of Southwick-crescent, and of Doctors'-commons, London.

SHELLY—TRAVERS.—On December 3, at Kensington, Charles Edward Shelly, B.A., M.B. Cantab., M.R.C.S. Eng., to Ellen Travers, youngest daughter of the late Mildmay Wolfe, Esq., of Port Elizabeth, South Africa.

SHEPPARD—WALLIS.—On December 4, at Bexhill, Charles Sheppard, Esq., solicitor, Battle, to Ella Nora, youngest daughter of Frederic Wallis, F.R.C.S., of Bexhill.

DEATHS.

DURRANT, HERBERT ARTHUR, youngest son of Christopher Mercer Durrant, M.D., of Ipswich, at Eastbourne, on December 4, aged 23.

FOWLER, ANNE SOPHIA, wife of Robert Fowler, M.D., of Bishopsgate, at Brighton, on December 5, aged 47.

GEORGE, RICHARD FRANCIS, M.R.C.S., late of Bath, at Weston-super-Mare, on December 4, aged 81.

HILL, EVELINE AUGUSTA, daughter of J. R. Hill, L.R.C.P., at Oak House, Tufnell-place, Holloway, on December 3, aged 8.

RAWLINGS, JOSEPH HENRY, M.D., at Norwood, Adelaide, South Australia, on September 29.

ROSSITER, FREDERICK WILLIAM, M.R.C.S., at Southfield Villa, Taunton, on December 4, aged 72.

SMITH, CHARLES, M.R.C.S., L.S.A., late of Highgate-road, Kentish Town, at Tottenham, on December 3, aged 73.

WELLS, JOHN SOELBERG, M.D., of 16, Savile-row, W., at Cannes, France, on December 3.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

HAMPSTEAD PROVIDENT DISPENSARY.—Medical Officer. Candidates must be duly qualified, and resident in the parish of Hampstead. Applications, with testimonials, to be sent to the Secretary, Mr. S. D. Roff, 57, Heath-street, Hampstead, N.W., on or before December 27.

LONDON HOSPITAL.—Medical and Surgical Registrars. Applications, with testimonials, to be sent to the Secretary, A. G. Snelgrove, on or before December 22, from whom further information can be obtained.

NATIONAL ORTHOPÆDIC HOSPITAL, GREAT PORTLAND-STREET.—Surgical Registrar. Candidates must be Fellows or Members of the Royal College of Surgeons. Applications to be sent to E. Carr Jackson, Esq., Honorary Secretary to the Medical Committee, on or before December 19.

MIDDLESEX HOSPITAL.—Medical and Surgical Registrars. Information can be obtained from the Secretary-Superintendent, Mr. R. Leeson. Applications, with testimonials, to be sent in on or before December 20.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.—House-Surgeon. Applications, with testimonials, to be sent, on or before December 16, to J. Walter Wilson, Esq., Honorary Secretary.

UNIVERSITY COLLEGE, LONDON.—Professor of Medical Jurisprudence. Applications to be sent to Talfourd Ely, M.A., Secretary, on or before January 7 prox., at the office of the College, where further information can be obtained.

DR. MORELL MACKENZIE'S valuable little work on Diphtheria, which has been so favourably received at home, appears to be as well appreciated on the Continent. A translation of it into Italian, by Dr. Graggi, was published by Civelli, of Rome, in April last; and a second translation is now appearing in the pages of the *Clinica Contemporanea Italiana e Straniera*.

UNIVERSITY COLLEGE HOSPITAL.—The Rev. Henry Stebbings, D.D., F.R.S., Rector of St. Nicholas Cole Abbey, E.C., has been presented with a handsome silver salver by a number of his friends, in recognition of his long and devoted services as Chaplain to University College Hospital from its foundation in 1834 until his retirement in 1879.

EDINBURGH OBSTETRICAL SOCIETY.—The following gentlemen have been elected office-bearers for the ensuing session:—*President*: Dr. Angus Macdonald. *Vice-Presidents*: Dr. A. R. Simpson, Dr. Bruce. *Treasurer*: Dr. William Craig. *Librarian*: Dr. Charles Underhill. *Secretaries*: Dr. James Carmichael, Dr. Berry Hart. *Members of Council*: Dr. Croom, Dr. Peel Ritchie, Dr. J. Young.

TESTIMONIAL TO A MEDICAL OFFICER.—On the 27th ult. a large gathering of gentlemen interested in the General Infirmary at Hertford assembled at that institution to present a testimonial to Dr. Elin for the long and valuable service he has given to the patients of that charity. The testimonial took the form of a handsome English chimney clock, and eight silver spoons made after the fashion of apostle spoons. The following inscription was affixed to the clock:—"Presented to G. Elin, M.D., in token of his valuable services during twenty-two years as an honorary medical officer of the Hertford General Infirmary."

MEDICAL PRACTITIONERS IN PRUSSIA.—According to the new Prussian Medical Calendar, there are at present in Prussia (including Waldeck and Pyrmont) 8397 doctors of medicine, 476 *Kreisphysici*, 143 *Wundärzte* (these having diminished from 347 in the course of five years), 251 dentists, and 2440 apothecaries. The number of doctors in Berlin is 917 (as compared with 907 for last year, and 801 five years ago), and 51 dentists.—*Berlin. Klin. Woch.*, November 17.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

THE PATHOLOGICAL SOCIETY OF DUBLIN.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—You note in your last issue that at the meeting of the Dublin Pathological Society immediately preceding your publication a large number of students had been present. It has been said on this side of St. George's Channel that in former days such attendance counted as a regular course of instruction in the medical curriculum, and was paid for accordingly. I should be glad to know if this practice still continues. If so, the attendance speaks for itself; if not, is it becoming that men in a position to instruct their coevals (I had almost written grandfathers) should so pose before such an audience? I trust we shall have a full explanation of the whole position. I am, &c., INQUIRER.

Variola.—Inoculation was introduced at Haverfordwest in 1733. It was first tried on criminals in 1727.

Street Accidents in London.—The Society for Preventing Street Accidents report for the week ending the 6th inst.—killed, 3; run over, 42.

Oculist, King's College.—The late Mr. John Soelberg Wells was admitted a Member of the Royal College of Surgeons on December 21, 1860, and a Fellow by examination on June 13, 1872.

Mr. Williams.—The election of Fellows into the Council of the College of Surgeons will take place the first Thursday in July. The gentleman you mention, it is already known, will decline re-election.

£ s. d.—The Parochial Board of Holm, Orkney, has appointed the Rev. Daniel McNeill, L.F.P.S.G., Free Church Minister, Medical Officer, in place of Dr. Bruce, Kirkwall. It was stated that the former gentleman would undertake the office for about half the amount paid to the present medical officer.

A Reprisal.—A retail milk dealer (a poor woman), who had been twice convicted under the Adulteration Act, and paid the fines imposed, has recovered, in the County Court, Southampton, the whole amount from the wholesale dealer from whom she purchased the supply. The judge also awarded her 10s. for loss of time in attending before the magistrates.

Chemicus.—Yes, quinine wine, which is an article of great demand in Canada, was, by an official report some time since issued by Colonel A. Brunel, the Commissioner of Inland Revenue of Canada, found, as stated, to be a highly alcoholised wine, containing gentian and nuxvomica, with 20 per cent. of alcohol, and therefore a powerful stimulant instead of being a simple tonic.

Lithotomist.—You will find much curious matter on the subject in the early volumes of the *Gentleman's Magazine*, in August, 1733. It is there stated that "Mr. Paul, a surgeon at Stroud, extracted from the kidneys of a woman, by an incision through her back, a rough stone as large as a pigeon's egg, and made an entire cure, the first of the kind ever performed in this kingdom."

A Quack Doctor.—At the Halifax Borough Court, last week, a quack doctor, of Prussia-street, Lady-lane, Leeds, was committed for trial on three charges of obtaining money by false pretences. He undertook, *inter alia*, to cure blindness, and published testimonials alleged to have been given by Halifax people who had been cured of various ailments, but the police failed to discover any of the persons mentioned. He was admitted to bail.

Sentries on Guard Duty.—Referring to the recent correspondence in the London Press on this subject, a correspondent writes:—"Soldiers doing guard duty in Berlin are not only allowed to wear the great wide neck-laps whenever the weather is inclement, be it summer or winter, but during the continuance of such a cold time as the present each sentry-box is provided with a pair of large thick and warm felt shoes, easily slipped on by the man on duty over his ordinary boots, and handed over by him to the relief. Warm gloves are of course also furnished."

Who is the Owner?—The Local Board of Torquay summoned Sir L. Palk, Bart., M.P., to show cause why he should not pay the sum of £45, being the amount of the general district rate on his property, known as Torquay Harbour. The defence was, that the sum claimed was levied on property which Sir L. Palk did not own. Torquay Harbour was really that portion of land covered by water for which a separate rate amounting to £14 1s. 3d. had been levied and paid. The property on which the £45 was demanded belonged to the public. The Bench did not coincide in this view of the case, and made an order for the payment, allowing the defendant the option of appeal.

A Philanthropist.—By the death of Miss Mary Stanley, eldest sister of the Dean of Westminster, and daughter of the late Bishop Stanley, of Norwich, we have lost one who took an active interest in projects of public and private philanthropy. In 1854 she took out to Constantinople the second detachment of nurses and ladies (the first having been taken out by Miss Nightingale), and remained four months, first assisting the Naval Hospital at Therapia, and then under the guidance of Lord and Lady Stratford de Redcliffe, in order to establish a military hospital at Koulalee, in addition to the principal one at Scutari, which was under the charge of Miss Nightingale.

BOOKS AND PAMPHLETS RECEIVED—

Schiller's Lay of the Bell, by Andrew Wood, M.D., LL.D.—Pathologie Clinique de Grand Sympathique—Royal London Ophthalmic Hospital Reports, vol. ix., part 3—Skin Diseases, by Malcolm Morris—Venereal Diseases, by Bumstead and Taylor—Returns of the Society of Medical Officers of Health—Atlas of Histology, by E. Klein, M.D., and E. Noble Smith, L.R.C.P.—Atlas of Skin Diseases, by Louis A. Duhring, M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Louisville Medical News—Nature—El Siglo Médico—Imports and Exports—National Board of Health Bulletin—Boston Medical and Surgical Journal—Analyst—Journal des Sciences Médicales—Practitioner—Centralblatt für Gynäkologie—Philadelphia Medical Times—Monthly Return of Births, Deaths, and Marriages.

COMMUNICATIONS have been received from—

Mr. HENRY MORRIS, London; Dr. JAMES CARMICHAEL, Edinburgh; Dr. JAMES MCCRAITH, Smyrna; Messrs. ARTHUR and C. COLE, London; Mr. ALFRED HAY, London; THE EDITOR OF THE "COLONIES AND INDIA"; THE REGISTRAR OF APOTHECARIES' HALL, London; THE REGISTRAR OF THE UNIVERSITY OF LONDON; Messrs. HOPKINSON and COPE, London; Dr. C. MEYMOTT TIDY, London; THE EDITOR OF "IRON"; Professor SPENCE, Edinburgh; Dr. E. I. SPARKS, Mentone; Dr. D. COLQUHOUN, London; Dr. MATTHEWS DUNCAN, London; Dr. G. E. HERMAN, London; Mr. M. BECHER, London; Mr. HENRY C. BURDETT, Greenwich; Dr. L. W. SEDGWICK, London; Messrs. G. STREET and Co., London; Dr. LOSCHNER, Austria; Mr. J. HAMILTON CRAIGIE, London; THE REGISTRAR-GENERAL, Edinburgh; Dr. J. W. MOORE, Dublin; Dr. GEO. THIN, London; Messrs. P. NIMMO and Co., Edinburgh; THE SECRETARY OF H.M. OFFICE OF WORKS, Whitehall, London; THE SECRETARY OF THE ROYAL INSTITUTION, London; Mr. C. MOSSOP, London; Mr. CHATTO, London; THE HON. SECRETARIES OF THE MEDICAL SOCIETY OF LONDON; Dr. DRUITT, London; THE HON. SECRETARY OF THE PATHOLOGICAL SOCIETY; Mr. HULKE, London; Mr. T. M. STONE, London; Dr. PEARSON IRVINE, London.

APPOINTMENTS FOR THE WEEK.

December 13. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

15. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.
MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. Cockle (the President), "On the Sequel to a Case of Aortic Disease" Mr. Thomas Bryant, "On the Value of Parallelism of the Lower Extremities in the Treatment of Disease or Injury of the Hip-Joint, with the best Means of Securing it." Professor Forster, "Experiments on the Contamination of Atmospheric Air with the Vapour arising from Arsenical Pigments."

16. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopaedic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.
PATHOLOGICAL SOCIETY, 8½ p.m. Dr. W. Ewart—Extra-pericardial Aneurism; Haemorrhage into Pericardium. Dr. Barlow—Ephysematous Cyst of the Lung, with Atelectasis. Mr. Hutchinson—1. Supposed Rupture of Roots of Brachial Plexus; 2. Two Cases of Peculiar Skin Disease. Mr. Bryce Barrow—Congenital Malformation of the Heart. Dr. Miller Ord—1. Large Gall-Stone passed per Anum, with Remarks on Structure and Formation of Biliary Calculi; 2. Some Urinary and Intestinal Calculi. Mr. Hulke (for Dr. Da Silva Lima, of Bahia)—Specimen of Ainum. Mr. Brailey—Glioma of Optic Nerve and Brain. Dr. Meredith—Ovarian Cyst which had repeatedly Ruptured during Nine Years. And other specimens. Specimens exhibited by Card: Dr. Coupland—Organ affected by Visceral Syphilis. Mr. James Adams—Cystic Sarcoma of Testis, with Enchondroma. Mr. Hulke—Specimens and Drawings of Cancers. Dr. Lediard—1. United Kidneys; 2. Dislocation of the Hip from Disease. Specimens on the tables by 8 p.m. for inspection.

17. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.
ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY (Council Meeting, 7½ p.m.), 8½ p.m. Casual Communications.

18. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.
HARVEIAN SOCIETY, 8½ p.m. Third Harveian Lecture—Edmund Owen, F.R.C.S., "On Certain Practical Points in connexion with the Surgery of Childhood."

19. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.
SOCIETY OF MEDICAL OFFICERS OF HEALTH, 7½ p.m. Short Communications and Conversation on Sanitary Subjects.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 6, 1879.

BIRTHS.

Births of Boys, 1230; Girls, 1240; Total, 2470.
Average of 10 corresponding years 1869-78, 2297.0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	992	896	1888
Average of the ten years 1869-78	846.8	836.9	1683.7
Average corrected to increased population ... ..	...	...	1802
Deaths of people aged 80 and upwards ... ..	...	...	71

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West	561359	1	4	13	3	12	1	4	2	1
North	751729	1	11	13	1	13	...	9	4	1
Central	334369	...	3	8	4	...	...	2	1	...
East	639111	...	17	29	4	7	...	1	1	2
South	967692	3	32	27	3	25	...	5	1	5
Total	3254260	5	67	60	15	57	1	21	9	9

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	29.631 in.
Mean temperature ... ..	...	...	...	...	...	27.1°
Highest point of thermometer ... ..	...	...	...	...	...	33.6°
Lowest point of thermometer ... ..	...	...	...	...	...	14.1°
Mean dew-point temperature ... ..	...	...	...	...	...	17.0°
General direction of wind ... ..	...	...	...	...	...	Variable
Whole amount of rain in the week ... ..	...	...	...	...	...	0.12 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Dec. 6, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Dec. 6.	Deaths Registered during the week ending Dec. 6.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		In Inches.	In centimetres.
London	3620868	48.0	2470	1888	33.6	14.1	27.1	-2.72	0.12	0.30
Brighton	105608	44.9	49	60	35.8	21.0	27.8	-2.33	0.14	0.36
Portsmouth	131821	29.4	83	50	...	...	...	...	...	...
Norwich	85222	11.4	51	35	34.0	14.0	27.0	-2.78	0.22	0.56
Plymouth	74293	53.3	38	41	42.2	20.8	32.1	0.06	0.10	0.25
Bristol	209947	47.2	130	114	...	...	...	...	...	...
Wolverhampton	75100	22.1	52	63	34.5	12.5	24.2	-4.34	0.26	0.66
Birmingham	338884	46.3	287	207	...	...	...	...	...	...
Leicester	125622	39.3	84	66	...	...	...	...	...	...
Nottingham	169396	17.0	92	92	38.2	4.5	23.5	-4.72	0.41	1.04
Liverpool	598333	103.3	378	385	39.2	21.5	28.6	-1.89	0.71	1.80
Manchester	361819	84.3	243	194	...	...	...	...	...	...
Salford	177849	34.4	122	62	...	...	...	...	...	...
Oldham	111318	23.9	69	47	...	...	...	...	...	...
Bradford	191046	26.5	106	90	38.6	15.6	23.2	-3.23	0.15	0.38
Leeds	311860	14.5	204	153	39.0	15.0	27.0	-2.78	0.27	0.69
Sheffield	297128	15.1	200	133	34.5	10.0	23.9	-4.50	...	...
Hull	146347	40.3	98	70	35.0	10.0	25.0	-3.89	0.53	1.35
Sunderland	114575	41.4	71	52	35.0	9.0	26.7	-2.95	1.24	3.15
Newcastle-on-Tyne	146948	27.4	90	81	...	...	...	...	...	...
Edinburgh	226075	53.9	136	99	36.6	7.5	23.2	-3.23	...	...
Glasgow	578156	95.8	343	232	34.0	23.5	29.8	-1.22	...	...
Dublin	314666	31.3	166	224	42.2	16.2	29.0	-1.67	0.10	0.25
Total of 23 Towns in United Kingdom	8502896	38.6	5562	4488	42.2	4.5	28.9	-2.84	0.35	0.89

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.63 in. The lowest reading was 29.32 in. on Thursday evening, and the highest 30.13 in. at the end of the week.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

THE DIAGNOSIS OF DISEASES OF THE SPINAL CORD.(a)

By W. R. GOWERS, M.D., F.R.C.P.,

Assistant Professor of Clinical Medicine in University College;
Assistant-Physician to University College Hospital, and to the National
Hospital for the Paralysed and Epileptic.

(Concluded from page 659.).

THE last part of our subject remains for consideration—the elements of the pathological diagnosis, by which, having ascertained the seat of the lesion, we endeavour to learn its nature. To do this, we attend, first to the way the symptoms come on and develop; secondly, to the position and distribution of the lesion; thirdly, to any causal or associated conditions which may be present.

We may group the primary morbid states into the following forms:—

(a) Vascular lesions; rupture, causing hæmorrhage; occlusion, from thrombosis or embolism (the latter being very rare).

(b) Inflammation; “myelitis,” acute or chronic, causing softening. (It is common to call all forms of softening “myelitis”; we do not yet know how far they are originally inflammatory, or are set up, as in the brain, by vascular occlusion.)

(c) Degeneration, or “sclerosis,” in which the nerve fibres waste, and the connective tissue (neuroglia) overgrows.

The term “sclerosis” is inaccurate etymologically, but seems to be firmly rooted. In some cases the change appears to commence in the nerve fibres, in others in the connective tissue. Some forms of degeneration pass by gradations into chronic inflammation (here as elsewhere), and the term “chronic myelitis” is sometimes inaccurately applied to the true degenerative forms.

(d) Pressure from without by inflammatory swelling of meninges or bones, or by growths.

(e) Growths in the cord itself.

We have first to consider how far these several lesions can be distinguished by their onset and course. According to the time occupied in their development, we may divide them into six classes: those in which the onset is *sudden*, instantaneous or nearly so; *acute*, occupying a few hours to a few days; *subacute*, developing in one to four weeks; *subchronic*, in one to two months; and lastly, the *chronic* cases, which may be divided into those occupying two to six months, and those occupying six months and upwards in their onset.

I have endeavoured to show the common relation of the lesions to these several courses in the following table:—

Onset.		
Pressure or Growths	SUDDEN (few minutes) . . .	} Vascular lesions.
	ACUTE (few hours or days) . . .	
	SUBACUTE (one to four weeks) . . .	} Inflammation (myelitis).
	SUBCHRONIC (one to two months) . . .	
	CHRONIC (two to six months) . . .	} Degeneration.
	VERY CHRONIC (six months and upwards) .	

A lesion of sudden occurrence, developing symptoms in the course of a few minutes, is always vascular; commonly, hæmorrhage, perhaps sometimes vascular obstruction. But a vascular lesion may occupy a somewhat longer time in development—a few hours or days. In acute and subacute inflammation the symptoms come on in the course of a few hours, a few days, or a week or two. Chronic inflammation occupies from a few weeks to a few months. Degeneration, in which there is no adequate evidence of any inflammatory process, occupies many months or it may be years. The symptoms produced by growths or simple pressure (traumatic causes excluded) are never sudden or acute, and rarely, if ever, very chronic, the time occupied by the development

of the symptoms varying, according to the nature of the cause, from a fortnight to six months.

It is necessary to consider, however, not merely the whole time occupied by the development of the disease, but also the uniformity of its course. Two or more forms of lesion may concur. An initial myelitis, for instance, may lead to a secondary degeneration; and, on the other hand, in degenerative tissues sudden vascular lesions occasionally occur. So the whole course of the disease must be ascertained, from its commencement to its height, before an inference is drawn.

The onset and course of the symptoms thus sometimes enable us to decide at once that a lesion is of a given character. More frequently they enable us to exclude certain morbid processes, and to restrict the possible lesion to two or three forms. Between these we have to decide by attention to other indications, and in actual diagnosis it is convenient to consider next the indication afforded by the position and distribution of the disease. As I said at the outset, this indication is never to be employed alone—never, except in subordination to a careful study of the mode of onset and course.

The affections called “system-diseases,” in which one system of structure is affected through a wide vertical extent of the cord, are commonly degenerative in nature: such are lateral sclerosis; posterior sclerosis (locomotor ataxy), the change in the anterior cornua which leads to progressive muscular atrophy (anterior cornual degeneration). These processes *probably* begin in the nerve elements. On the other hand, lesions which have a limited vertical extent—“focal lesions”—are commonly the result of processes which may be either acute or chronic, but begin outside the nerve elements, in the connective tissue vessels. Such are hæmorrhages, foci of myelitis, spots of “insular” sclerosis, growths, and pressure from without.

But this distinction cannot be employed except after due consideration of the mode of onset. Scattered acute focal lesions, for instance, may occur widely scattered in the same structure, and produce symptoms limited to certain functions, but of wide distribution, and simulating—indeed, constituting—a “system-disease.” Thus I have seen subacute symmetrical myelitis of the anterior cornua in the lumbar and cervical enlargement causing paralysis and atrophy in all four extremities, the upper parts of the limbs being normal.

Again, a small focal lesion may be limited to one structure, and cause symptoms confined to one function. Thus we may have an anterior cornual myelitis, or a columnar myelitis, lateral or posterior, giving rise to limited symptoms—local muscular atrophy, unilateral paralysis, or local ataxy.

Lastly, many “focal lesions” may give rise to secondary system-degenerations. Thus a focus of myelitis in one lateral column may cause descending degeneration in the whole lateral column below, with its attendant spasmodic symptoms. Indeed, so true is this, that, as we have seen, lateral sclerosis, “spastic paraplegia,” is one of the rarest of primary lesions—is almost always secondary to a limited focal lesion. In all these cases, however, attention to the mode of onset will prevent error.

The combination of mode of onset with seat of lesion sometimes helps us in a more direct manner, especially in the case of growths and compressions in the cord. The characteristics are their limited vertical extent and slow invasion of parts adjacent to that first affected, on the same level. The only other chronic lesion which acts thus is a patch of muscular sclerosis; and the diagnosis between the two may be difficult. It is rare, however, for sclerosis to pass from one side to the other, while it is very common for a growth arising on one side to damage the other by invasion or pressure. Hence the characteristic effect of growth is to cause symptoms due to damage to one portion of the cord, and slowly extend to the opposite portion. The same is true of slow compression, with the exception that the effect is more frequently limited, and it more frequently affects the front of the cord before the back, and bilateral motor paralysis precedes sensory impairment. The diagnosis between the two is also aided by the next indication.

The last element in the pathological diagnosis is the detection of any condition which can be regarded as the cause of the disease in the spinal cord. We have seen that the mode of onset may help us to limit the possible disease to certain forms of lesion: the distribution of the affection may render it probable that it is one or other of these forms;

(a) An Address delivered before the Medical Society of Wolverhampton, October 7, 1879.

and the detection of a cause of disease of the spinal cord, and the knowledge of the lesions which that cause produces, may help us to fix the nature of the lesion still further. It is important, therefore, in diagnosis to be aware of the several effects of the common causes of spinal disease.

1. *The State of the Vascular System.*—The conditions which favour hæmorrhage are of far less value with regard to the spinal cord than with regard to the brain. Conditions of mechanical congestion—heart disease, emphysema, etc.—favour degenerative changes and also probably thrombosis. The state of the vascular system which is associated with chronic kidney disease undoubtedly favours diffuse degenerative changes in the cord; the occurrence of which has been so ably demonstrated by Sir William Gull and Dr. Sutton.

2. *Scrofula* commonly causes spinal disease by leading to disease of the bones of the spinal column; and the evidence of this, local tenderness or irregularity in the vertebral spines, or actual curvature, is of the highest diagnostic importance, and careful and repeated examinations of the bones should never be neglected in cases of obscure spinal disease. There is, perhaps, no error in diagnosis which is more frequently made, or which results in graver errors in treatment, than the non-recognition of disease of the spinal bones. It is important to remember also that the damage to the cord may occur before the signs of bone disease are distinct: hence the importance of repeated examinations.

In bone disease the cord suffers in at least four different ways:—(a) By pressure from the inflammatory swelling of the bone without curvature. The effects of the pressure may lessen as the curvature comes on. (b) By pressure in consequence of the displacement, the bony canal being narrowed by the angular projection of the bodies over which the cord is stretched. (c) By secondary chronic inflammation, with thickening of the dura mater (pachymeningitis), compressing the cord. (d) By the extension of an acute inflammation from the bone through the membranes to the cord. Hence we cannot, because we find evidence of bone disease, immediately conclude that the cord is pressed upon by the displaced bone. We must investigate the mode of onset of the symptoms and their character, and infer from these the character of the disease of the cord according to the rules now given.

3. *Syphilis.*—The methods by which syphilis causes disease of the cord, which are universally recognised, are—

(a) The growth of syphilomata springing from the connective tissue, the membranes or tissue in the fissures, and invading the cord. In these cases we have symptoms varying in character according to the position of the growth, and similar to those produced by other limited lesions, but always of gradual onset.

(b) By chronic meningitis, with thickening and pressure on the nerves, and sometimes on the cord also. The characteristic symptoms depend upon the damage to both motor and sensory nerves, the former cutting off the muscles and peripheral nerves from the influence of the motor nerve cells, and hence causing muscular atrophy, very similar to that due to disease of the grey matter, but differing by its association with scattered areas of diminished sensitiveness of the skin. The interference with the reflex loops abolishes reflex action in the part; but if the damage is confined to the upper part of the cord, and the cord itself is pressed upon, there may be an excess of the reflex action on the lower part.

(c) Syphilitic disease of vessels may *probably* lead to acute softening, similar to that in the brain. Syphilitic subjects may become suddenly paraplegic, and it is probable that it is by this mechanism, although the fact does not at present rest on post-mortem evidence.

All the above lesions originate in the adventitial (adneurial) structures; they are primarily "adneurial" diseases. There is, however, a considerable mass of evidence to show that (d) diseases which originate in the nerve elements and neuroglia, primarily "neural" diseases, more or less degenerative in character, may be a late effect of syphilis, although, except perhaps in the very earliest stage, they are not benefited by antisyphilitic remedies to the same extent as the adneurial diseases. I believe that in one-half of the cases of locomotor ataxy of primary posterior sclerosis there is a history of syphilis; (b) and the proportion becomes greater if we include the cases

in which the posterior sclerosis is secondary to an adneurial affection. Anterior cornual degeneration (progressive muscular atrophy) sometimes occurs after constitutional syphilis, and so also do the symptoms associated with sclerosis of the lateral columns. Moreover, I have seen disseminated sclerosis (demonstrated post-mortem) follow constitutional syphilis in a manner which afforded the strongest evidence of a causal relationship.

In these cases of degenerative neural disease it does not appear, as far as we can tell, that the anatomical process presents any recognisable difference from that which occurs as a result of other causes; and it is possible that the relation to syphilis, although effective, may not be direct.

The exciting causes of disease of the spinal cord sometimes afford diagnostic indications. Exposure to cold may cause acute symptoms, commonly due to inflammatory softening—sometimes focal, sometimes diffuse; and in the latter case accompanied by symptoms of meningitis. It may also cause hæmorrhage. It is especially effective in women at the menstrual period. Repeated exposure may lead to degeneration, especially in the grey matter.

Acute specific diseases, especially typhoid fever, are occasionally followed by spinal symptoms, due to changes which are probably of the nature of subacute inflammation. It is very common for a patient after typhoid fever, for a long time, sometimes permanently, to suffer from slight weakness of the legs; and occasionally during the course of the disease acute symptoms, as those of anterior cornual myelitis, may occur.

Sexual excess is a more common cause of transient functional weakness than of organic disease.

Traumatic influences are frequent causes of cord disease. The cord may be directly pressed upon and damaged by displacement or fracture of the vertebræ, or a severe concussion may be followed by slow paralysis at an interval of a few days or weeks. In such a case I have found post-mortem numerous minute foci of chronic inflammation, most abundant in the grey matter.

These, then, are the chief etiological facts, which, taken in conjunction with mode of onset and distribution, enable us to form an opinion regarding the nature of the lesion.

To sum up: In examining a case of disease of the spinal cord, the method should be briefly as follows:—First endeavour to ascertain the exact seat of the lesion; note how far the several conducting functions of the cord are impaired, and the highest level of their impairment; then ascertain the condition of the central functions, especially muscular nutrition and irritability and reflex action, first in the part below the level at which conduction is impaired, and secondly at the supposed level of the lesion: and in this way you may infer, without much difficulty, what is the extent of the lesion transversely and vertically. In the next place endeavour to ascertain its nature by considering—first, how the symptoms came on and developed; secondly, which of the lesions having this mode of onset and development are common in the region affected; and thirdly, which of them are produced by the cause or causes to which the disease is apparently due.

This process of diagnosis may seem somewhat elaborate, and, no doubt, a practised observer does not always consciously go through it. But in most cases, if he wish to avoid error, he goes through it unconsciously, and no step can be with safety dispensed with. We may thus, in almost all cases, arrive at an exact diagnosis of the seat of the disease, and, in a large number of cases, of its nature also. There are, however, some cases with respect to which the diagnosis of the nature of the lesion can be approximate only, although we can always limit it to one or two possibilities.

I had intended to illustrate the principles I have laid down by a series of examples, but have already tried your patience beyond reasonable limits, and will content myself with two illustrations having reference especially to the point which has been mentioned to-night, I believe, for the first time—the utilisation of the superficial reflexes of the trunk in the diagnosis of spinal cord disease. I will take, as examples, two cases in which the pathological diagnosis presented no difficulty, since both were cases of fractured spine, and complete paralysis of the legs occurred immediately on the accident, indicating direct damage to the cord by the displaced bone.

(b) See paper on "Syphilitic Neuroses," *Brit. Med. Journal*, March, 1879. The same opinion has lately been expressed by Erb.

In the one case, that of a sailor, there was no irregularity of the spines to guide us as to the position of the injury, but this was clear enough from the symptoms. The legs were completely paralysed, and all the muscles, when the patient came under observation, some months after the injury, were greatly wasted, faradaic irritability being extinct. This proved complete degeneration of the motor nerves arising from the lumbar enlargement. Sores had formed on the limbs and sacrum, indicating damage to the nerves which influence the nutrition of the skin. Sensation was at first lost, but afterwards returned as hyperæsthesia—suggesting initial damage and partial recovery of the tracts conveying sensation. The sphincters were powerless, and their condition was such as to indicate damage to their centres in the cord. From these symptoms we inferred damage by compression of the lower three-quarters of the lumbar enlargement. But what was the state of the dorsal region of the cord? Sensation above the groins was normal, but this does not exclude slight damage to the cord, since the impairment of sensation caused by slight damage may pass away. Here it was that the superficial trunk reflexes arrested us. We found that the epigastric reflex and the abdominal reflex were perfectly natural on each side, even in the lower part of the abdomen. The cremasteric reflex, however, was active on the right side, absent on the left; so that we had evidence that the dorsal cord was normal, and that the damage commenced at the level of the first lumbar nerve, where the reflex loops were damaged on the left side and normal on the right, and that just below this point the damage was great. The patient died, and the autopsy revealed exactly the condition which had been diagnosed. The dorsal cord was uninjured, and so was the highest part of the lumbar enlargement; while its lower position was split in two by a fracture, with displacement of the first lumbar vertebra.

The other case is that of a girl, who is now in University College Hospital under the care of Mr. Heath. There are indications of damage to the bones about the ninth dorsal spine. The limbs are completely paralysed; but there is only slight wasting, the faradaic irritability of the muscles being preserved, although slightly lowered; and reflex action is preserved. Hence we infer that the motor nerves are undegenerated, that the anterior cornua are not directly damaged, that the lumbar reflex loops are entire; in short, that the damage to the cord is at or above the highest part of the lumbar enlargement. There is loss of sensibility to pain in the legs, that to touch being preserved. Hence we infer that the destruction of the cord is incomplete. This loss extends as high as the epigastrium—evidence that there is some damage to the cord extending as high as the origin of the eighth dorsal nerves; and this is corroborated by the condition of the superficial reflexes of the trunk: the abdominal is lost on both sides; the epigastric is lost on the right side, but present on the left, indicating clearly the highest level of damage. Thus there is evidence of affection to the cord from the origin of the eighth to that of the eleventh dorsal pairs; but these symptoms do not show whether the damage is equal throughout this region. This information is, however, supplied by an examination of the faradaic irritability of the abdominal muscles. Above the umbilicus there is normal irritability; below the umbilicus it is gone—i.e., the motor fibres of the ninth and tenth pairs are undegenerated, their anterior cornua are undamaged, the fibres of the eleventh, perhaps of the twelfth, pairs are completely degenerated, and the corresponding cornua are destroyed. As the lumbar enlargement is not directly damaged, we are able thus to limit with precision the considerable damage to the cord to the origin of the eleventh and perhaps also of the twelfth pairs. (c)

In both these cases, thus, the information conveyed by the trunk reflexes was most important.

Gentlemen,—to know your enemy is, if not “half the battle,” at least a most important part of it. To understand the disease with which you have to deal is only second in importance to the knowledge of how to treat it. Real advance in therapeutic science comes but slowly. The present generation has, however, witnessed not unimportant progress, and still greater additions in our knowledge of the

(c) The epigastric reflex has now (December 10) returned on the right side, indicating the commencement of recovery in the upper part of the area of slighter damage.

nature of disease, and in our means of precise diagnosis. I shall be glad indeed if the account I have endeavoured to give to-night of one department of diagnosis may help any of you in your daily work, by rendering to you the problem of the diagnosis of diseases of the spinal cord, if not more simple, less obscure.

ORIGINAL COMMUNICATIONS.

ON THE TEMPERATURE IN RELAPSE OF TYPHOID FEVER.

By J. PEARSON IRVINE, B.Sc., M.D., F.R.C.P. Lond.,
Assistant-Physician to Charing-cross Hospital, etc.

(Concluded from page 661.)

I HAVE reported at least three examples of intercurrent relapse, and in all, as the term *intercurrent* would imply, there was no interval between the primary disease and relapse. Intercurrent attacks, in fact, interrupt the disease, and have a specific character, because they run a course very similar to that of ordinary typhoid relapse. In Cases 10, 17, and 24, undoubted illustrations of intercurrent relapse are presented. These relapses ran a more or less typical course, after interrupting the disease midway, as it were; the manner of their onset and the rapid elevation of temperature to the fifth day indicating intercurrency, rather than complications which could be excluded by careful examination. One intercurrent relapse lasted about fifteen days, and two about twenty-one days, the general symptoms being in all those of ordinary typhoid relapse. But these intercurrent attacks add greatly to the difficulties which the clinician meets with in his study and treatment of typhoid. It is clear that, occurring as they do in the midst of an ordinary attack, they must mislead the physician sometimes in spite of all his care. I ask reference to Chart 10; in this case the temperature during a primary relapse was on the eighth evening 103.4° Fahr., and on the ninth evening down to 96° Fahr. Irregularity of fever was the rule for the next two days, when an intercurrent relapse set in, and ran so characteristic a course that it is not necessary to dwell on it again. The intercurrent relapse lasted twenty-one days, and plainly, if intercurrency had not been recognised, it would have seemed that the relapse which it interrupted had gone on for at least thirty-two or thirty-three days. In Case 17 the intercurrent attack was much milder, but its chart is typical enough. Intercurrency in Case 24 is equally undoubted; it came on during typhoid of unknown duration, and followed a course which aided the diagnosis, if such aid were needed. I cannot here dwell at length on these three charts, however anxious to do so; they prove that typhoid or its ordinary relapses may be prolonged strangely unless the fact of intercurrency is remembered, and that if intercurrent attacks are recognised they help us vastly in the prognosis and treatment of our cases. And here we must again speak of the so-called *Recrudescences*. These simulate relapse and all kinds of complications; indeed, sudden rises of temperature during a typhoid convalescence are frequently most puzzling. But I believe that the temperatures ascribed to “recrudescence” are simply accidental; they are not due to any new disease, but to the local intestinal lesions which have been disturbed by various causes—errors in diet, for example. But the elevated temperatures in these cases convey a warning, and that warning is not neglected by the intelligent physician who remembers that the mischief of typhoid fever does not end with the termination of fever and the almost too apparent convalescence of the patient. Recrudescence shows no regularity; in it the temperature runs up suddenly, and as suddenly falls. We can find no clinical explanation of the unexpected changes, and at once fall back on the view that local intestinal lesions remain unhealed, from some cause or other have become irritated, and have excited the temporary fever. “Recrudescences” are really but ordinary sequelæ of typhoid fever, and the same term might fairly be applied to uncertain accidents met with at the end of other acute diseases. Many examples of recrudescence appear in the charts; but the best is afforded by Case 21, in which during convalescence the temperature rose from subnormal level more than five degrees, and sank again to the same level within

thirty-six hours. Similar accidental elevations and sudden falls undoubtedly occur without apparent reason during ordinary typhoid fever.

And now we come to accidental variations of temperature which can be ascribed to true complications. As has been said, complications are during the actual febrile period perhaps more common in relapse than in primary attacks. Nor can we wonder thereat, inasmuch as the patient is reduced by a long pyrexia, and has a system deteriorated by what may be fairly described as a protracted blood-poisoning. A patient in such a condition is prone to pneumonia of low type, to pleurisy, to hepatic and renal disturbances, and to gastro-intestinal mischief; his long period of fever has necessarily weakened his heart; and it is plain that, directly and indirectly, his nervous power must be greatly reduced. So, in relapse of typhoid fever, we expect accidents and complications, and I am convinced that, it is this expectation which has made the mortality of relapses far less than that of the primary attacks. And in this fact lies the greatest of all reasons for the careful study of temperature after the apparent termination of an ordinary attack of typhoid fever. Pneumonia and the other diseases mentioned are of course common complications in most acute specific diseases, and examples of their occurrence in typhoid-relapse have been given. The clinical point is to discover them, and thus explain irregularities of fever which without such explanation would be of the gravest import. In *Case 16* (*vide* chart) is given an excellent illustration of this fact. In *Case 20* greater difficulties are manifested; pneumonia occurred at the end of primary typhoid, and the typhoid relapsed after a short interval. The relapse in this case was modified by the pneumonia, which had not cleared up, and as it progressed relapse increased the lung-troubles. The patient had, in fact, pleurisy with effusion; the temperature of relapse was therefore not typical in all respects, and the variations of temperature led to considerable variation in the treatment of the patient, who finally recovered. Such a case is by no means uncommon in primary typhoid; but its lessons are valuable. We meet with persons suffering from pneumonia or pleurisy secondary to typhoid, and may go far astray if we fail to recognise the disease on which they are contingent.

The fatal cases illustrate the value of exact observation with the thermometer. They are but few in number, and an examination of their charts will show how strangely the temperature varied from that of more favourable cases. During the progress of many relapses anxiety was, of course, often aroused, and, whenever there was a deviation from the typical stages, signs of danger invariably succeeded the warnings of the thermometer. Perhaps it is not out of place to point out particular examples of this important clinical fact. In *Case 4*, where relapse followed relapse almost without intermission, and there was an almost continuous pyrexia lasting seven or eight weeks, the dangerous days were associated with extraordinary variations in the temperature—with departures from normal standards. In the third stage of the second relapse a sudden fall and a sudden rise on the sixteenth day were followed by alarming symptoms—a rapid and feeble pulse, circumscribed flushing of the cheeks, subsultus, typhoid stools, and a new crop of typhoid eruption. In *Case 8* the danger of the first relapse was very great between the eighth and eleventh days, during which the temperature had not the characteristic fall; and though the fall shortly afterwards occurred, it was associated with severe diarrhoea and hæmorrhage from the bowels, which of course gave the warning that the fall should not be considered so satisfactory as that of more natural cases. The fall was delayed, and it is not unfair to suppose that the violent symptoms which attended it explain the delay, for these symptoms were those of deep and dangerous ulceration of the intestines. This view is sustained by the after-course of the disease; the fever did not fall in the third week, for there were daily increasing exacerbations, and, though the temperature did not reach great levels, these irregular exacerbations were always accompanied by severe general symptoms. The second relapse in this case is a marked contrast to the first; it was favourable throughout almost (though in the first stage there was hyperpyrexia). The second stage ran away into the third, and from the fifth day to the end of the disease there was a daily descent to subnormal temperature. This relapse was, however, severe; but the course the temperature took

was regarded as of favourable prognosis, and, in spite of the patient's long-continued and irregular fever, at the end of the second relapse she entered on a rapid convalescence, which was not interrupted by a single bad symptom.

Such a case as this is more instructive, clinically especially, than typical cases; and others of the series enhance its value. In the brief description of *Case 13*, allusion was made to the severity of the symptoms. The patient was for some time as ill as he could well be; and I remember no case in which there was more need to give an unfavourable prognosis; but the temperature guarded that prognosis, for it fell on the eighth day, though only in small degree. The fall, however, occurred; and though the second stage was prolonged to the thirteenth day, the absence of irregular rises during this stage made us hopeful, in spite of the excessively severe general symptoms. A decided fall came on the thirteenth day of the relapse; but the patient was prostrated almost in the last degree; and had the thermometer not been used, and its teachings compared with those of other cases, everything would have pointed to a fatal issue. Even the most cultivated "*tactus eruditus*" could scarcely have given results so accurate as the thermometer; but though the hand is less accurate than the thermometer, it should none the less be thoroughly trained to determine, as far as possible, the "temperature of the skin," so that we may not, in the possession of instruments, lose those tactile powers which have proved so valuable in all ages and epochs of medicine. For other cases with bearings similar to those I have just quoted, reference is asked to the series, a careful examination of which indicates what temperatures are valuable in the prognosis of unfavourable cases. In any instance of relapse of typhoid a temperature on any day after the fifth day which exceeds or even equals the temperature of that day is a bad sign; and all the more, of course, is a continuation of fever as high as that of the fifth day, or approaching it without evening remissions through a prolonged second stage, evidence of danger. It is not necessary to dwell with more detail on the signs of danger which the thermometer gives. The general course of the fever in relapse demands every attention, and there is no disease in which comparison of one day's pyrexia with preceding degrees is more valuable, especially because the vast majority of cases are under careful observation from their onset to their end—a fact which perhaps explains the comparatively small mortality in relapses of typhoid.

The number of cases which terminate favourably is remarkable, for relapses occur in persons pulled down by long periods of fever; and it is but fair to claim for medicine a therapeutical triumph in the success with which it meets relapses of typhoid. The cases being under observation from their beginning, various so-called "trifling" methods of treatment are adopted, of whose value none but the medical man is aware; errors of diet and mischievous remedies are alike avoided; officious friends and their nostrums are carefully guarded against; the thermometer, used diligently, keeps the physician on the alert, and forewarns and arms him against complications—so that the patient is safely piloted through the dangers of his disease. And when one relapse has been passed through, the physician who remembers the possibility (or even probability) of a second relapse can do much for the good of his patient. He relies on the thermometer as his chief guide, and avoids errors into which he might otherwise be led.

It is clear that relapse differs very greatly from primary attacks. It is asserted by all authorities that the temperature of relapse rises to its highest level more quickly than in the primary disease; and this is true, but it would be more correct (judging by the instances given) to say that there are not in relapse the typical evening exacerbations and morning remissions met with for the first few days in the ordinary fever. The rise in relapse, in the great majority of cases, is to the fifth day all but uninterrupted, and where great interruptions occur there are accidents enough to account for them. The maximum evening temperature is reached by the fifth day, as occurs in primary typhoid, (a) but afterwards the curve presents a decided contrast to that of the latter; in which till the twelfth day the fever

(a) Most observers fix the third day as that of highest temperature in relapse. I ask attention to the charts in regard to this point.

remains high, though with a maximum scarcely so high as on the fourth to sixth days. Wunderlich has gone so far as to declare that we may exclude typhoid if the temperature on any day between the eighth and eleventh be below 104° Fahr.; and a fall at the end of the first week, he also thinks, excludes it. Of course he is speaking generally, and would be the first to admit exceptions to these rules of exclusion. However, an exactly opposite general rule must be laid down for cases of relapse, in which, if normal in their course, a fall about the eighth day occurs, and temperatures far lower than 104° Fahr. are met with in the interval mentioned by Wunderlich. These important differences between primary typhoid and its relapse should always be borne in mind, and particularly because many patients suffering from relapse are, when first seen by the physician, considered to be the victims of a primary attack of typhoid. In these cases the thermometer is of the first importance, for it helps us to determine with accuracy the imperfect previous histories which typhoid patients so frequently furnish. In out-patient practice all are, as I have said, familiar with instances of "ambulatory" typhoid, where the disease is so "trivial" that the patients resent the assertion that they are suffering from a dangerous disease. During the epidemic, for example, of typhoid in London, in the autumn of 1877, I had in one week two out-patients of this class. They persisted in walking through their primary attacks, which lasted, as nearly as could be determined by observations made twice a week, twenty-eight days. In both relapse set in a few days after the end of the primary disease, and ran a course of from twenty to twenty-one days. The patients refused admission to hospital and persisted in attending as out-patients; but recognising at last the gravity of their illness, gave up work, and were strict in their diet. Thermometric observations of these cases were, of course, but occasional; they had, however, a special value in many directions, and the termination of their relapses about the end of the third week was prognosticated. As has been already urged, we should, in all attempts to determine the nature of primary typhoid and its relapses, not forget that the former is very often completely obscure and disregarded by the patient, and, in fact, that many cases of typhoid would escape notice did not relapse set in. The second stage in relapse, as compared with that of the primary attack, is cut short, and the same is true of the third stages. In relapse this stage is marked by decided fall of the temperature to the normal, and there is no *fourth week* in which deep curves prove the end of ordinary attacks of primary typhoid. The absence of those exacerbations and remissions, met with at the end of typhoid fever, in the cases of relapse, was striking; but in many charts of mild (primary) typhoid, which are given by several authorities, this absence is met with. In some, indeed, the whole temperature-curve so exactly resembles that of normal relapse, and is in such contrast to that of normal primary typhoid, that it is quite possible that they were relapse-charts, and that the primary attack had been obscured. Wunderlich gives one chart illustrative of "mild" typhoid, which, after examination of relapse-charts, one would be inclined to think was an example of relapse. At any rate, even in the attempts to determine the normal duration of primary typhoid, we should rely on no cases which are not beyond all question primary; and the fact that the duration of normal first attacks is not satisfactorily settled, if we judge by the various authorities, teaches us to be cautious against confounding primary and other attacks of typhoid. For example, Dr. Murchison has seen roseolous spots in a mild typhoid as late as the sixtieth day, while Sir William Jenner has never seen them after the thirtieth day, except in cases of relapse. It is not necessary to dwell on the conclusions to be drawn from the observations of authorities so eminent; they clearly show that our most able clinicians hold different views as to the duration of primary typhoid; and no one can wonder, therefore, that relapse remains a difficult question, and one full of the greatest interest.

There is one other point to which cases of relapse call attention. Can they help to settle the question of the duration of the incubatory period of typhoid? The series of cases recorded gives nothing definite in this direction, but they are suggestive. Many physicians are of opinion that if a person suffers a relapse of typhoid he owes that relapse to a new contagion, even though the "return" sets in immediately after the termination of the primary attack—as was

the case in many of the instances of relapse detailed. On this view we must suppose that primary typhoid and incubation of relapse co-exist—in fact, run together for several days. I venture to think that relapse is due to the primary contagion, and in the great majority of cases relapse sets in within a short period after the termination of previous attack. But it is difficult to believe that a recurrence of a typhoid attack weeks, and even months, after a patient's convalescence, is due to the primary cause of disease. Instances of such "relapses" have been given by continental observers; but they are, to say the least, rare in this country, in which typhoid fever is the most common acute specific disease amongst its adult population. As has been already said, it is by no means certain that these are not cases of multiple relapse similar to many examples given above, for, unless the thermometer is used with daily regularity, intermediate relapses may be very readily passed by.

One word as to the therapeutical value of diagnosing obscure relapse. I repeat that the thermometer enables us to guard against mischievous treatment, and that it alone is frequently that which guides us in dieting patients for days and weeks after the apparent termination of typhoid fever. If the thermometer declares a recurrence of fever resembling relapse—nay, in the least suspicious of relapse—it is clearly one's duty to be as careful in the dietetic management of the patient as in the primary disease. Mild and severe cases should know no distinction in this respect, for in both there are local lesions, which errors increase, with fatal results. And it should be ever remembered that high temperature is not the only evidence of danger and of the necessity for care. Cases 26 and 27 afford illustrations; relapses occurred, and throughout the fever was slight, but a great mistake would have been made had this led one to regard the disease lightly. The teachings of ambulatory typhoid fever are but repeated by mild cases of relapse, and in the persuasion that ambulatory typhoid is one of the most dangerous forms of the disease (for reasons known to all), perhaps I may again crave indulgence for dwelling on the need of careful consideration of "post-typhoid" temperatures, and of absolute typhoid dietary when these temperatures are in the least significant of the occurrence of relapse.

ON THE CAUSES OF THE RISE AND FALL OF TEMPERATURE IN ZYMOTIC DISEASE.

By JOHN SHEA, B.A., M.D.,

Physician to the Royal Berkshire Hospital; Medical Officer of Health and Public Analyst for Reading; etc.

THE chemistry of brewing has much in it that tends to throw light on the fermentive processes that seem to occur in zymotic diseases. The brewer has to deal with a fluid full of organic matter (the wort), very prone to change and decomposition; even a tolerably strong unboiled infusion of malt will, after a few days' standing exposed to the air in a warm place, evolve carbonic acid freely, become acid and turbid, and throw down a sediment which itself acts as a ferment if added to dilute saccharine solutions. But the brewer does not depend on a chance ferment for producing the changes he requires; he is very particular about the ferment he uses, that it shall be as nearly as possible *always the same*, and he dreads the introduction of other or "false ferments." A moderate quantity of sound growing yeast is added to the wort on which the brewer operates, and, at a suitable temperature, the *kind* of fermentation he desires is produced. In the act of fermentation there is a *rise* in temperature, checked, if needed, by the application of cold (by the circulation of cold water within a coil of pipes immersed in the wort), and, as the act of fermentation proceeds and becomes complete, a crop of fresh *new* yeast rises to the surface of the beer, and is removed for further use in fresh brewings. The yeast first employed undoubtedly perishes in exciting fermentation in the wort, but it gives rise to, and develops, a fresh crop of new yeast-cells; and it is one of the brewer's great anxieties that this freshly developed yeast shall not be inferior to its progenitor, but shall be a healthy, strong, and active ferment, capable of again producing the *same kind* of fermentation as before. It sometimes happens, however, that by some mismanagement in the brewery the yeast gets deteriorated, becomes at each brewing weaker, and

at length perishes; or it becomes charged with forms foreign to healthy yeast, and does not excite the proper kind of fermentation. The brewer then abandons this yeast, and seeks a fresh supply elsewhere, often from some neighbour. Presuming, however, that the process has gone on successfully to the alcoholic stage, it is then the aim of the brewer to check any further fermentation; the beer has already been "hopped," and the bitter of the hop acts as an *anti-ferment*, preventing further change, but it is extremely needful to let all the yeast "work out" of the beer before the barrel is finally bunged up, or the beverage becomes what is called "yeast-bitten," and very liable to acetous fermentation.

It is by no means difficult to draw an analogy between this process of brewing and the process that goes on in the human body affected by zymotic disease. In zymotic disease there is (1) an organic fluid—the blood—susceptible of change; (2) this fluid may be fermented by the introduction of disease germs which act as ferments; (3) the fermentive process causes a rise of temperature; and (4) the kind of fermentation will depend on the kind of ferment or germ introduced, just as the quality of yeast will govern the sort of fermentation set up in the brewery; (5) the act of fermentation being accomplished, the mature form of the ferment disappears or perishes, but in so doing gives rise to a fresh crop of spores, which, *after an interval*, re-develop the mature form of ferment, and with it the fermentive process and a consequent further rise of temperature; (6) this sequence can be checked, more or less completely, by the application of cold, or by the administration of some bitter, such as quinine, which acts as an *anti-ferment*, just as the bitter of the hop acted in the beer.

The analogy ceases here, for the brewer is anxious to preserve his ferment for fresh brewings, whereas the physician desires that the ferment in the blood of a fever patient shall perish, lest by repeated fermentation it exhaust both the nutritive power of the blood and destroy the nervous power in the system. Where the fermentation is not severe, or the natural powers of the patient in resisting exhaustion are good, a time comes when the ferment itself perishes. The death of the ferment may be aided by cold (as baths) or by the administration of anti-fermentive remedies like the cinchona alkaloids or salicylic acid; and it is found that a full dose of quinine given shortly *before* the expected rise of temperature acts best, probably in retarding the further development and regeneration of the ferment. The analogy between the effect of disease-germs on the blood and the action of yeast in wort is by no means new. Liebig has drawn the same analogy.

Bavarian beer is fermented by a form of yeast which collects at the bottom of the fermenting vessels. It differs from the yeast which rises to the surface as in our English brewings, depending on management and temperature. The Germans call it "*Unterhefe*"; it is capable of *reproducing itself* (like other yeast), and is said to give rise to a special kind of fermentation of a mild and quiet character, producing a beer which, on exposure to the air, does not go sour so quickly as our English beer, which is made by the more violent fermentation produced by the yeast which rises to the top and called by the Germans "*Oberhefe*." Liebig has made a comparison between the "*Oberhefe*," which is a strong ferment, and the virus of small-pox, and has compared the "*Unterhefe*" to the milder virus of vaccine lymph. He says: "The ordinary yeast and the virus of human small-pox effect violent and tumultuous transformations—the former in vegetable fluids, the latter in blood,—and they are reproduced from these fluids with all their characteristic properties. The precipitated yeast of Bavarian beer, on the other hand, acts entirely upon the sugar of the fermenting liquid, and occasions a very protracted decomposition of it, in which the gluten takes no part, but the air exercises an influence upon the latter substance, and causes it to assume a new form and nature, in consequence of which this kind of yeast also is reproduced. The action of the virus of cow-pox is analogous to that of the 'low yeast.' It communicates its own state of decomposition to a matter in the blood, and from a second matter is regenerated, but by a totally different mode of decomposition. The product possesses the mild form and all the properties of the lymph of cow-pox."

Whether or not this exactly represents the changes that occur in the production of "low yeast," or in cow-pox, it would tend to show that Liebig considered that *each specific*

ferment produces its own kind of fermentation and reproduces itself.

Wunderlich admits, in his work on "Temperature in Disease," that "it is not at all impossible that, independently of the oxygen in the body, some kind of fermentive process may be excited which may become the source of heat, as happens, indeed, external to the organism." The ordinary normal heat, or normal rise and fall of temperature in the human body, is of course due to, and depends on, causes very different from those producing the rise and fall of temperature in fevers.

The sudden excessive rise of temperature in such diseases probably depends on, or is concurrent with, a development of the *mature* form of an exciting ferment, and the researches respecting the condition of the blood in "relapsing fever" seem to prove this. At the height of that fever the blood is found full of moving rods ("*spirillæ*"), which disappear as the temperature falls, and are again found if the temperature again rises. There can be little doubt that in the interval between the two rises of temperature, though the mature rod-like forms of the *spirillæ* cannot be observed, the spores are present as minute micrococci-like bodies. In zymotic diseases, if the fermentive action is very violent, the temperature rises very high, and a crisis, or "*perturbatio critica*," may occur, followed by an *abnormal fall* of temperature, due to the exhaustion of the vital powers, consumption of tissues, and deterioration of the blood, induced by the high temperature, or rather its cause. A tendency to collapse then occurs, and the lowered temperature and impoverishment of the nutritive character of the blood itself may bring about the *death of the ferment* and cessation of the fever, or even the death of the sick person himself, if the fermentive changes have been so violent that the essential functions of life are interfered with from the exhaustion of nerve-power. Thus, after or at such a "*crisis*," the blood will supply less pabulum for the re-development of the ferment, which then perishes, and with it ceases the fermentation of the fluids of the body, and the temperature resumes its normal state. But, presuming that the ferment does not perish and the patient still survives, the abnormal fluctuations of temperature will continue (1) as long as the ferment itself finds material to feed upon from which it can re-develop itself, and (2) so long as the blood and fluids of the body are duly renewed by assimilated food, and such blood and fluids retain the capacity of supplying nutriment to the ferment, and of supporting the fermentive process. The existence of effete matters in the blood may greatly help to support the ferment, and their removal help in its extinction. It can scarcely be doubted that in a *healthy human* body, where the effete matter is small in quantity, there is a *resisting influence* to zymotic disease, due also possibly to the presence of some natural anti-ferment in the blood—"animal quinoidine"—and to the absence of a pabulum on which the diseased germs can feed most readily.

The rise of temperature in fever is attended with the development of the mature form of the exciting ferment, which in its turn gives birth to fresh spores. If then the ferment can be killed, or the fermentive process checked *before this rise again occurs*, a stop will be put to the re-development of fresh spores or disease germs. In the intervals *between* the rises of temperature in certain diseased states, although the mature form of the ferment present has not been found, its place has been occupied by bright refractive micrococci-like bodies from which it can be re-developed. From the study of the life-history of these minute organisms it is known that the mature forms will perish at a temperature of 140° F., whilst the bright nuclei they contain resist heat of 260° F. The germs, therefore, are far more vital than the mature forms of these ferments, and are more difficult to kill. These germs may lie dormant in the viscera or lymphatics till circumstances favour their re-development or further activity. It is in this way only that the long intervals that sometimes occur between the attacks in ague can be explained; and the benefit that arises from the exhibition of a full dose of quinine before the next fermentive act or attack occurs is well known. Ague is a disease in which the periodicity seems clearly to mark distinct recurrent processes of fermentation (the theory propounded, that the disease is merely due to "chill," seems perfectly untenable), and there can be but little doubt that although Dr. Salisbury may have misnamed the *algæ*, he found in malarious districts

—confounding it with a harmless form, the “palmellæ” —he is correct in attributing ague to the action of a minute vegetable organism on the blood. The more recent researches of Klebs point entirely in the same direction, and it is now confidently asserted that the ague poison can be collected and concentrated, being a minute algæ—the *Bacillus malarie*.(a) Cohn considers all the bacteria to be *algæ*; and if one form will produce ague, other forms may each produce specific diseases. Not only does quinine cut short the hyperpyrexia in ague, but the early administration of a *large* dose of this anti-ferment is well known to reduce the temperature in enteric fever or pythogenic pneumonia. Salicylic acid also acts as a blood anti-ferment in rheumatic fever of malarial origin, and the same compound is somewhat largely used to preserve organic fluids in daily use. Although a fall of temperature usually follows the administration of a *large* dose of quinine, this result is not always seen, and the exhibition of powerful doses of anti-ferments in zymotic diseases affords *no certainty* of a favourable issue to the case. It may be that the anti-ferment is not given soon enough or in a sufficiently large dose to counteract the ferment introduced into the body by contagion. The medicine itself may tend to “slow” the pulse and still further depress the vital powers; or the nervous system may at the very outset have received too severe a blow from the blood-poisoning to recover its power; or lastly, the blood itself may become disintegrated from the violence of the action set up by the ferment absorbed, especially if the amount absorbed be large.

Disintegration of the blood is not uncommon in malarial blood-poisoning, where the dose of the poison and its results are both excessive. Where only a moderate dose is absorbed, the blood may sustain many repetitions of the fermentive act, may be deprived of much of its nutritive principles and salts, and yet not become disintegrated to such a degree as to produce purpura. The impoverishment of the blood in saline matter may be due to action of the ferment on the blood. It is a known fact that certain bacteroid forms seem to flourish in and live upon distilled water charged only with certain salts; and the use of saline medicines in fevers may be due to the counteraction of this impoverishment, and the combination of salines with an anti-ferment like quinine is often found to be useful. The rise of temperature is rarely so excessive in elderly persons as in young adults. After forty years of age very high temperatures are seldom observed in cases of enteric fever. Where the person affected is over forty the body has also, in all probability, sustained already several acts of fermentation from previous diseases, such as scarlet fever, etc., and is less prone than in youth to take on the fermentive process.

Although the existence of “special ferments” is widely denied or questioned, and objections are raised to the fermentive theory of zymotic diseases, the abnormal rise and fall of temperature are not easily explained on other basis.(b) Vaccine lymph is said to be true infective matter destitute of bacteroid forms, but it is on good evidence stated to be full of micrococci-like bodies. Pyæmia also is said to depend on a poison (“pyrogen”) which does *not multiply* in the body, but acts according to the dose absorbed; but it is admitted that in *nearly all* cases of pyæmia the blood has been found to contain various forms of bacteria, and where the *mature* forms were not found, it is by no means certain that their *germs* were absent. In certain diseases the germs may play a more important part than the mature forms, and, by gaining access to the *soft nerve-centres*, cause intense depression of nerve-power, such as is seen in diphtheria. Till some more probable theory arises, the fermentive theory in zymotic disease appears the most possible.

ROYAL INSTITUTION.—On Saturday, December 27, at 3 p.m., Professor Tyndall will deliver a lecture on “Water and Air,” being the first Christmas Lecture.

(a) In August, 1870, the author of this paper obtained spores, on glass slides placed over land where ague was rife, of a character exactly similar to those described by Klebs as *Bacillus malarie*.

(b) There is, moreover, a wide field of research open as to the cause of rise and fall of temperature in phthisis, in certain forms of syphilis, and in other diseases. In acute cases of phthisis, for example, some blood-poison may be introduced from the suppurating lung surfaces; and in syphilis it is more than probable that a specific ferment is present in the fluids of the body.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

LONDON HOSPITAL.

CASES IN MR. HUTCHINSON'S WARD.

Severe Epistaxis treated by Hot Foot-Bath.

W. C., aged forty-nine years, a brassfounder, was admitted into the surgical wards on December 5. He had been under treatment on the medical side from November 29, for severe bleeding from the nose. The nares had been plugged, and ergot had been given in large and frequent doses, and it had also been injected hypodermically. The usual local remedies had been applied in addition, and patient was kept at rest; but whenever the plug was removed the bleeding recommenced. Patient stated that he had had a similar attack about five years before, on which occasion the hæmorrhage had lasted off and on for two or three weeks. He was then, however, treated as an out-patient at another hospital, and had not required to be admitted indoors. When transferred to the surgical side patient was intensely anæmic, and in an irritable condition; the pulse was rapid and very weak; the general state was one of profound debility from loss of blood. The nares were plugged, but patient had cut off the string attached to the plug posteriorly. Mr. Hutchinson ordered the plug to be removed, and had the patient placed in an easy chair, with his feet in hot water; ice was applied to the nape of the neck. A mixture containing tinct. digitalis ℞xv., ext. ergotæ liq. ℥ss., aq. ad ℥ss., was ordered to be given three times a day. In about an hour's time the bleeding had completely stopped, but the postural treatment was continued, and the foot-bath was also kept in use for several days. In remarking on this case, Mr. Hutchinson said he never now treated epistaxis by plugging, as he found that what might be called the revulsant treatment was more satisfactory. Here the whole round of the usual treatment for epistaxis had been adopted, but the result had not been successful. When he first saw the patient he felt very anxious about him, as he had lost blood to a dangerous extent, and was altogether in a miserable condition. In another case which he had treated lately in private, the patient was a woman, whose condition was, however, even worse than this man's. Her pulse was so weak and irregular that it had been a question whether she would be able to bear the sitting position; but in her case, as in the present one, the result had been altogether good. The constitutional treatment in such cases was not, of course, to be neglected, and Mr. Hutchinson considered that ergot, and if necessary digitalis, should be administered. By December 10 patient was allowed to lie down in bed, and all special treatment was discontinued with the exception of the medicine. The bleeding had shown no signs of recurrence, and although anæmia and debility were very marked, patient has rallied well.

Erythematous Stage of Leprosy in a Boy.

John D., aged twelve years, was admitted in the beginning of December. He was born in India of English parents, who seemed to have been healthy and free from transmissible disease. He had several brothers and sisters, all alive and in good health. Patient was said to have always enjoyed good health until about the age of six and a half years, with the exception of several attacks of what was described as “dengue or Indian fever.” Two or three times a year he had had attacks commencing with a red appearance of the skin of the whole body, appearing first on the face, accompanied by vomiting, great thirst, and loss of appetite. These attacks usually lasted from a week to a fortnight, leaving patient as well as ever. When he was seven years of age he was found to have enlarged spleen; and his parents were advised to send him to England. He arrived here in June; and in the following November, patient, who is an intelligent lad, said that he first noticed a tingling in the little finger, and on the ulnar side of the ring finger of the left hand. This tingling lasted for about a month; and he then began to lose sensation and power of motion in the same parts. In December of the same year a red elevation appeared below and to the outer side of the canthus of the right

eye. In this place he felt the same kind of tingling sensation that he had previously felt in the left hand. The redness and elevation subsequently disappeared; and the spot became deficient in, but not absolutely devoid of, sensibility. During the four following years sensibility and the power of motion in the little and ring fingers gradually became more deficient, and the anæsthesia extended up the ulnar side of the hand, both on its dorsal and palmar surfaces. His general health kept good, and he complained of nothing else. About nine months before admission his face became brownish and dusky in appearance; two months later the same changes became apparent over the arms, legs, and buttocks; and after a short interval white patches began to appear in the middle of the brown ones. Nothing definite could be ascertained as to the cause of the disease beyond the fact of his residence in India. There were some discrepancies as to his and his father's statements regarding his diet while in India, his father stating that he was the only one of the family who ever ate much fish, while the boy states that he never ate fish, but took meat and rice as the ordinary articles of diet. On admission patient is rather undersized, but apparently fairly healthy. His face is swollen and has a somewhat erythematous and pigmented appearance. The alæ of the nose are especially thickened. Just below the outer angle of the right eye there is a white patch about as large as a shilling, which is very markedly anæsthetic as compared with the surrounding parts; the eyebrows are very scantily covered with light hair. The trunk is almost free from redness or pigmentation, but on the arms the condition is well marked, especially on the extensor aspects. There are several white patches here visible, and on testing these it is very evident that sensibility is much dulled. The little and ring fingers of the left hand are contracted from loss of function of the extensors, and the anæsthesia of these parts is well marked. There is a very decided metacarpal hollow between the thumb and forefinger of the same side, due to atrophy of the muscles in that situation. When the fingers are passed over the skin near the inner condyle of the humerus, the ulnar nerve can be made out to be much thickened in that situation. Mr. Hutchinson said there were here at least two distinct changes in the nerves—one connected with the nerve-endings in the papillæ of the skin, and to which were due probably the changes in the nutrition of parts, etc.; and another in the nerve-trunks themselves, as shown by the enlargements, which could be felt. The condition was more advanced on the left side than on the right, but on the right side also a similar swelling of the ulnar nerve could be distinctly made out. The lower limbs and the buttocks were also similarly affected. As an illustration of the deficient sensibility of the hand, it was found that patient had placed his hand on a stove in the ward, and had burnt himself, causing a considerable scar, without being aware of it. In its history, and the appearance of the patient, this case was a typical one of leprosy. In view of the supposed parasitic origin of this disease, the question of diet was one of importance, as the fish—of which, according to the father's story, patient took so much in India—might have been the source of infection.

Tumour of the Face, of Nævroid Origin.

A child, a few months old, was brought into the theatre (December 8) for examination. On the right side of the face in the parotid region was a large, smooth swelling, resembling a glandular tumour in appearance. This growth had appeared after birth, and had gradually increased in size. The mother stated that she had taken the child to a medical man, who had incised the tumour, and had ordered the parts to be poulticed. The scar of the incision could be seen on its surface. Mr. Hutchinson remarked that the case was of a very interesting nature. The growth was one of a kind the true nature of which Sir James Paget was the first to point out. They arose probably during intra-uterine life from some change in a nævoid growth, and were often associated with nævus after birth. The change consisted in the growth ceasing to be vascular and becoming cystic. These tumours were therefore always congenital, although it might be that at birth they were very small, and might easily be overlooked. A very interesting point in their life-history was that they would sometimes grow and remain painless for six months or so, and then become tense, painful, and take on inflammatory action. When inflamed they

appear as if bruised and about to burst, but following the inflammation, in from two weeks to a month the whole tumour subsides and shrivels up. In other cases, however, no inflammatory change takes place, and then the tumour does not disappear. Obviously, in a case like the one under notice, no operation would be satisfactory, looking both to the relations of the tumour and to its probable course. Mr. Hutchinson had seen a similar tumour in the thigh, where it presented a most alarming appearance, and amputation was suggested on the supposition that the growth was sarcomatous. He had also seen a case where a similar appearance was presented in the arm. The course to be pursued was to observe an expectant attitude, and if signs of inflammation came on, and the pain and tension were great, some simple local application might be used, such as lead and spirit lotion. In all growths found in young children the possibility of their being of this nature should be borne in mind.

MIDDLESEX HOSPITAL.

SEVERE SQUEEZE, NEARLY KILLING BY SUFFOCATION—PUNCTIFORM HÆMORRHAGES IN THE SKIN AND CONJUNCTIVÆ, ETC.

(Under the care of Mr. HULKE.)

THIS case aptly illustrates some of the effects of the heightened blood-pressure which attends suffocation. Their restriction to the upper part of the body may be explained by supposing the circulation in the lower part to have been wholly arrested by the great pressure on the lower part of the trunk.

A well-grown, healthy warehouse-woman, aged twenty-one, whilst kneeling, was borne down to the floor and held so by several heavy boxes, which fell on her and rested on her loins. They were so heavy that it was not possible for her to extricate herself, and before they could be lifted off her she was nearly suffocated. When admitted into the hospital, within a very short time of the occurrence of the accident, her face, neck, shoulders, and the upper part of the front of her chest were noticed to be speckled with numerous small hæmorrhagic spots not unlike fleabites. The conjunctivæ were similarly spotted, and a little blood had oozed from the right ear. She complained of aching in the loins, and a bruise was noticed over the left half of the sacrum. She could not lift the left leg off the mattress, and passive movements which tightened the psoas muscle were painful. When tested by boiling with nitric acid, the urine gave a deposit of one-quarter of albumen.

The capillary hæmorrhages slowly disappeared, those on the conjunctivæ continuing longest. The albuminuria ceased after a very few days. She left the hospital in three weeks, but the left leg was still a little lame.

ACTION OF ANTISEPTICS.—In a second note, dealing with their experiments, read at the Académie des Sciences, Prof. Gosselin and M. Bergeron come to the following conclusions:—1, Pus putrefies more slowly than blood; 2, its putrefaction is retarded by incomplete occlusion; 3, it is also retarded by antiseptics, whether in contact or at a distance; 4, but it is especially through their action on the blood which has issued from the vessels that antiseptics are useful in surgical practice. By preventing its putrefaction they suppress the principal agent of suppuration, lessen the amount of this, favour immediate union, usually partial, but sometimes complete, and thus preserve from grave traumatic fever and pyæmia.—*Gaz. Méd.*, December 6.

WANT OF MEDICAL ATTENDANCE IN FRANCE.—The Minister of the Interior is most properly engaged in endeavouring to find a remedy for the great inconvenience produced by the absence of all medical aid in communes in which are to be found neither practitioners nor *pharmaciens*. Of the 36,056 communes of France 33,003 have no *pharmaciens*, and 29,697 have neither physicians nor *officiers de santé*; so that in the case of accidents or sudden illness the inhabitants of these communes are utterly deprived of the succour they need. The Minister has decided that a *boîte de secours*, containing all the more usual medicinal agents, shall be deposited in every commune. A point has, however, to be determined—viz., in whose hands is this *boîte* to be placed. A commission is about to be appointed to decide this question.—*Union Méd.*, December 4.

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Medical Times and Gazette.

SATURDAY, DECEMBER 20, 1879.

ANTISEPTIC SURGERY.

DURING the remarkable debate, eloquent in a rare degree with facts, on Antiseptic Surgery, at St. Thomas's Hospital on the 3rd inst., Mr. Lister complained—and with some show of justice—that several new facts of the greatest pathological interest and the highest clinical importance had been added to our knowledge since the introduction of the antiseptic treatment of wounds, but that they had passed unnoticed or unappreciated by his professional brethren. If this is true, how is it, we would ask, that they have failed to attract the notice which they deserve? Is it that we are not in the habit of thinking about the actual changes that take place before our very eyes? Or may it be said that we are so much accustomed to looking at the healing process from a superficial point of view, that, unlike our German *confrères*, we are mentally incapable of seeing what is going forward, or, if we do see, of observing it? Let any one of our readers endeavour to think of himself as he was ten years ago, and imagine the incredulity he would have felt if he had been told that a piece of necrosed tissue—say a piece of bone lying in an open wound—could be absorbed by the surrounding tissues and replaced by a mass of living cells; or if he had been taught that the edge of a flap which had sloughed, or a patch of skin that had died as the result of pressure, need not necessarily be separated by the suppurating process, but that he might hope to see the living tissues gradually encroach upon, and ultimately replace, this dead material. We are told now, on evidence that seems incontrovertible, that such things do occur. If a teacher ten years ago had told his class that a blood-clot, lying in a wound, need not break down and disappear, but would undergo an organisation in its deeper parts, gradually extending to the more superficial layers, until at last cicatrisation extended over the surface of what was once the coagulum, unaltered in shape,

almost unaltered in appearance, would he not have been looked upon as the concocter of fables not cunningly devised? Yet *now* it is said that this is a matter of everyday occurrence. What would have been thought, at the time we are speaking of, of one who should have advocated the early and free incision of large spinal abscesses? *Now* we know that it is an established fact—for hundreds of cases have proved it—that the wall of a psoas abscess is not essentially “pyogenic,” but that if freely opened and efficiently drained, while putrefaction is prevented, the cavity no longer secretes pus, but actually does—not in a small percentage of cases, but in all—discharge only serum, in small quantities, till it has healed. These are well ascertained facts, and not the mere dreams of an enthusiast; and, moreover, it may be added that numerous surgeons have adopted them as articles of their creed, perhaps unconsciously to themselves, and are making them the basis of their daily practice; and not only so, but they have acquired, in consequence of these facts and others of a like nature, a confidence and a boldness which they themselves, ten years ago, would have accounted unjustifiable rashness. Mr. Lister himself might, of course, be accused of being an enthusiast, of riding his hobby too hard, and of possessing a confidence in his theory which was not justified by results; but it is impossible to read the careful address of Mr. Mac Cormac, containing not only an account of his own excellent results, but summaries of the opinions and practice of such men as Esmarch, Volkmann, Kraske, and Nussbaum, or to study the observations of Spencer Wells, Keith, Thornton, and many others, without being convinced that many of us are reaching, or have already reached, the same standpoint with regard to this important question. But may it not be fairly said, in reply to Mr. Lister’s complaint above mentioned, that if the profession in England have been slow to appreciate the antiseptic system, he is himself, in a considerable degree, responsible for their slowness of belief? They have been looking and asking for full reports of the results of his practice—not for mere statistics, but for detailed, authorised accounts of his operations and his successes,—and till just lately, and in his speech at St. Thomas’s, they have looked in vain. It is true that he published some statistics when he left Glasgow; and in 1875 he gave an address in relation to his work in Edinburgh; but since then—silence, or very nearly so. Now, through the speeches at St. Thomas’s, we have got from him and others the information longed for, and certainly it seems to fully justify the faith they have in antiseptic surgery.

What is to be said, then, of the principles upon which the treatment is founded? We adopt the practice, we acknowledge the efficacy of it: shall we, or shall we not, give in our adherence to the hypothesis, the acceptance of which has been the means of leading to the position attained? We say the *hypothesis*, because, like many other propositions in natural science, it is a theory which is not capable of actual demonstration, though, at the same time, the effect of cumulative evidence may be (many of us think, already is) sufficient to make it practically a certainty. No one, it may argued, is positively sure, as the logicians point out, that either he or his neighbour has a stomach, heart, or liver, or, in fact, anything else but a skin; but the anatomising of so many of his predecessors during the last few thousand years leaves him no reasonable ground for doubt upon the subject. In the same way, no one can prove that low bacterial life cannot arise *de novo* in organic fluids or in the interior of a wound, but the countless and often repeated experiments of a host of unimpeachable observers render it certain that, in the vast majority of cases, such an occurrence does not take place. That putrefaction is the result, and not the cause, of the development

of low organic life, and that the presence of decomposition in a wound is mischievous, and not beneficial, few at the present day will be disposed to deny. Now, every step of Mr. Lister's treatment has been laboriously built up upon the acceptance of this hypothesis—if such it is still to be called. It is not, in this instance, the practice which has caused the evolution of the theory, but the theory which has served as the groundwork on which the practice has been erected. That the practice is successful is a strong presumption in favour of the correctness of the fundamental hypothesis; and every addition to the former, arrived at by methods of deduction, must stand as additional evidence in favour of the latter. So much, indeed, is the one grafted upon and dovetailed into the other, that some contend, as did Mr. Mac Cormac, that those who intend to adopt Mr. Lister's practice must, in order to do him justice, believe without reserve in the germ theory, or at least act as if they believed in it.

So far as this, however, we do not go. All that is necessary to a fruitful, working faith in the antiseptic treatment is the belief that, by its means, *some* influence for evil—something that, if it gains access to a wound, may produce degradation and decay of tissue, pyæmia, and a host of other evils—can be kept at bay, and that more certainly and perfectly than by any other means at present known. It is by no means essential, for the fullest practical good to be attained, to believe that the evil-producing something consists of bacteria, or any other forms of low organic life.

It may be, however, that there are some men who would find it impossible to carry out, and carry through, the antiseptic system unless they believed fully in the germ theory; and, anyhow, we can agree with Mr. Lister when he says that it would be an excellent thing if anyone who proposes to himself to undertake means for preventing putrefaction in a wound could have the opportunity of performing experiments which involved the prevention of decomposition in putrescible fluids contained in glass vessels. He would then appreciate the nature of the difficulties that lie in his way, and the scrupulous care which is essential in order to arrive at successful results. This would be an excellent education to anyone who cannot believe in the existence, in the air round about him, of anything that he cannot see with his naked eyes; and would largely help to keep him scrupulously on guard against all evils, whether germs or not.

Considerations of this sort lie at the very root of this important question; but there are others of equal importance in connexion with certain statistics of Mr. Lister's cases which have been published during the present month. To them with the subject of the adjourned debate we propose to return in a future issue.

EMMET'S OPERATION FOR THE REPAIR OF THE CERVIX UTERI.

IN our number for July 20, 1878, we offered some remarks on the operation which has been introduced by Dr. Emmet, of New York, for the repair of lacerations of the cervix uteri. This operation has been lauded in America as if it were one of the greatest discoveries of the century, and English gynecologists, who have tried it, and found it of little use, or who have been so little convinced by the literature in its favour that they have not thought it worth a trial, have been censured with some bitterness by the American Press for their want of appreciation of American progress. They express a feeling, which we therefore suppose exists in America, that in England justice has not been done to this new operation of Dr. Emmet's. If in justice has been done, we are among the culprits, for in the article we have referred to above, we gave reasons for doubt-

ing whether the operation was really of much use, and for thinking that the benefits to be derived from it had been greatly over-estimated. The comments we then offered were based upon a paper by Dr. W. H. Baker, of Harvard University, detailing five cases in which the operation had been done. Of these five only one was uncomplicated, and in that one the symptoms were so slight that there was difficulty in inducing the patient to submit to treatment. Dr. Baker's cases seemed to us to point to the conclusion, that laceration of the cervix uteri is comparatively unimportant as a cause of symptoms. We had to express our regret at the absence of detail in the writings on the subject, both of Emmet and of others who have recommended the proceeding.

Dr. Goodell's presidential address to the American Gynecological Society has again drawn our attention to the subject, and afforded us some valuable information about it, in that this address contains a full account of a case in which the operation was performed. With relation to our present topic, even a single case is of especial value: because the operation has been advocated simply by general statements of the evils worked by laceration of the neck of the womb, and the good done by sewing up the torn part. These, however, are worth nothing except as expressions of opinion; and opinions derive their only value from the confidence felt in the judgment of the person who speaks. If we admit that Dr. Emmet and Dr. Mundé, are, like other mortals, liable to error, then their opinions at once cease to carry complete conviction.

Dr. Goodell's patient was aged thirty-four, and had had three children. "From the last labour," we are told, "resulted retroflexion, partial prolapse, hypertrophied (*sic*) womb measuring three inches and a half in length, and all the accompanying symptoms of that condition. There were present pelvic pains, great weariness, inability to walk even a block, cervical and corporeal endometritis, and great pain in coition. She also, from extreme tenderness of the womb, could not bear the softest pessary. Finally, menorrhagia set in so profusely that she would become unconscious during her periods." We need not quote the whole account in full, because those who wish to study it can do so in the *Transactions* of the American Gynecological Association. The diagnosis was, "retroflexion of a hypertrophied womb with eversion and hypertrophy of the lips from laceration of the cervix at her last confinement." From this account we should ourselves have judged the laceration of the cervix to be a factor of trifling importance in the production of the morbid state. However, treatment was begun by repairing the cervix; and we would draw special attention to the result. *Although wholly successful, this operation made no other change in her general condition than in reducing the amount of the periods, and in permitting the use of a pessary.* The reporter goes on to say, but without giving any reason for his opinion, that he believes the operation was the first step towards a permanent cure.

This case is one so complicated that it is idle to draw any positive conclusions of a general kind from it; for even the slight improvement which did follow the operation may be accounted for by the rest in bed and local depletion attendant thereon. But as to the individual case, the slowness of the benefit which followed repair of the cervix clearly demonstrates that the condition of the neck of the womb played a very small part in the causation of her symptoms. We should not have thought this single case worthy of so extended a notice were it not that no others have been vouchsafed us. This case, and those of Dr. Baker, which we before referred to, are our only materials for forming a judgment on this question.

We will now define our present position with regard to

this subject. We are of course not merely willing, but anxious, to modify our views if good cause for doing so can be shown us.

There are two points of view from which the operation may be regarded: first, as a means of repairing the cervix; and second, as a means of removing local and general symptoms. As to the first point we gladly admit everything that is claimed for it. We recognise Emmet's originality in proposing it, and in devising a good method of performing it; and we entertain not the least doubt, that when properly done, it completely and thoroughly repairs injuries done to the cervix in parturition or otherwise. But looked at from the second point of view—that is, as a means of removing symptoms—it seems to us that evidence of its value is much needed. It is alleged that laceration of the cervix causes and keeps up cervical endometritis. That this is highly probable, we admit; but it is not a necessary sequence, for cases are often met with in which laceration and eversion of the cervix exist without any trace of inflammation. Indeed, Dr. Emmet himself says that probably some laceration of the cervix takes place in every child-bearing woman. If it be so, and that these lacerations always cause endometritis, then cervical endometritis ought to be universal among child-bearing women. However, we will admit that in some women laceration and eversion of the cervix may cause inflammation, or prolong its course. It is also said that laceration of the cervix causes sterility. But everyone who has seen anything of the diseases of women must know that it is exceedingly common to meet with this condition of the cervix in pregnant women; so common is it, that it seems to us simply absurd to allege that eversion of the cervix can cause sterility. And far more grave symptoms are said to spring from laceration of the cervix—anæmia, dyspepsia, nervous disturbances, phthisis, etc. It is not possible for us here to go into this large question. The opinion in question is supported only by assertions and hypotheses; no proof has ever been attempted. And there are many facts which prove that inflammation of the cervix uteri is, comparatively speaking, a very harmless thing. We will only recommend any who may be inclined to believe this new American revival of an old and long since exploded doctrine, to first study Dr. West's Croonian Lectures.

The only way to prove the pathological importance of these lacerations, and consequently the necessity of repairing them by operation, is by reporting cases. These cases must be simple ones: it is no use taking a case in which several other pathological conditions were present, and as many modes of treatment were simultaneously carried out; for then we cannot tell to which morbid state the symptoms were due, or which was the treatment potent in relieving them. An operation, especially a plastic one, is a mode of treatment the benefit of which it ought to be peculiarly easy to prove in this way, for its effects are simple and definite. It is not like the administration of a drug, the physiological action of which we may only imperfectly know. If symptoms be really due to a cause which can be completely remedied by an operation, then rapid amelioration ought to immediately follow the removal of this simple cause.

The only way in which it is possible, at present, for any gynaecologist to form a judgment about this operation, is by performing it himself and carefully noting the result. And we hope that those who do so will fully report their cases.

THE WEEK.

TOPICS OF THE DAY.

A FINAL meeting of the Stafford House Relief Committee, which was so active in furnishing supplies for the sick and

wounded Turkish soldiers during the Russo-Turkish war, was held at Stafford House on the 4th inst. A balance of £500, remaining after all outstanding claims had been satisfied, was directed to be forwarded to Sir Henry Layard for distribution in conformity with the objects of the Committee. A vote of thanks to the Duke of Sutherland and to the executive officers was then passed, and the Committee was finally dissolved.

Apparently encouraged by the communication received from the Home Secretary on the subject, the City Commission of Sewers are endeavouring to administer the Artisans' and Labourers' Dwellings Improvement Act in regard to the Golden-lane and Petticoat-square sites. A report from their Finance Committee, submitted last week, and adopted, showed that, acting under the amendment of the Act passed this year, which provided that accommodation for the people displaced might be obtained elsewhere than on the site sought to be improved, always supposing the same to be equally convenient, they had selected a site near the Islington Cattle Market, as an eligible position, possessing the great advantage of being immediately contiguous to the permanently open space of the market, and being easily accessible from all parts. The saving in cost by substituting this site for those cleared in Golden-lane and Petticoat-square, and devoting the latter to commercial purposes, would be considerable. The engineer estimated that £20,000 would be saved to the ratepayers; but it was hoped the Corporation would give the ground, and thus the cost would be much reduced. The sites in the city would be thus available for sale, and the workmen's dwellings would be erected in a better and healthier locality. The foregoing report was considered by the Court of Common Council at their last week's sitting, and it was determined unanimously that the same should be referred to the Markets Committee, with power to confer with the Commission as to the terms on which the land near the Cattle Market might be obtained. In the course of the discussion on this subject it was stated that the Commission proposed to build dwellings for 1800 people on the Islington site, and although some of the speakers were of opinion that very few of those actually turned out would avail themselves of the accommodation to be provided in lieu of their old dwellings, the importance of doing something was so universally admitted, that they withdrew their opposition. If arrangements of this description can be legally carried out, there may be some hopes for those sites which have been cleared under the direction of the Metropolitan Board of Works.

Dr. Benjamin Browning, Medical Officer of Health to the Vestry of Rotherhithe, and Inspector under the Canal Boats Act of 1877, has addressed a letter to the papers, in which he calls attention to the fact that the latter Act is practically a dead letter, since there is no provision in it for the detention (excepting when contagious disease occurs) of any boat infringing its regulations, and consequently offenders get out of reach of the local authority before the procuring or serving of a summons is practicable. Until this and other working defects in the Act and the Local Government Board regulations are amended, Dr. Browning is of opinion that no inspector, however painstaking, can do more than obtain a voluntary registration of some of the boats he sees; still less, though he is often expected to do so, can he insure the school attendance of the children living on board these vessels.

Some very munificent bequests have recently been made in behalf of the sick poor. Mrs. Grimes, who resided in Hounslow for a great number of years, has left the sum of £10,000, free of duty, for the purpose of erecting a hospital for Hounslow and its neighbourhood. After paying some other legacies, the remainder of her fortune is to be

appropriated in endowing the said hospital; and she directs that her medical attendant, Dr. Tyler Smith, shall be appointed the medical officer thereto. Mrs. Mary Charlton, late of Priory House, Dudley, Worcestershire, has bequeathed £10,000 to the Dudley-Guest Hospital, founded by her late brother, £1000 each to the Dudley Dispensary and the Wolverhampton Orphan Asylum, £300 each to the Birmingham and Midland Eye Hospital, and several other charities, all the legacies to be free of duty.

The sanction of the Local Government Board has been obtained to a scheme adopted by the Abercystwith Town Council for supplying that town with water from Plynlimmon at an estimated cost of £16,000. A short time since a deputation from the Council waited upon the Local Government Board and the Commissioners of Woods and Forests, and the latter body have granted, upon favourable terms, the use of the water, which belongs to the Crown. Sir Pryse Pryse has also granted the use of his land upon liberal terms. These concessions are the more valuable as the supply of water to be obtained is said to be inexhaustible and of the purest quality.

A Parliamentary paper has been issued, containing further correspondence relating to hospitals for British seamen in foreign ports. The correspondence originated in a report made by Dr. Patterson, Surgeon-Superintendent of the British Seamen's Hospital, Galata, Constantinople, a portion of which we quote:—"A peculiar form of disease was developed on board the English steamers carrying Russian troops. It was a purely mephitic intoxication, due to the crude method of ventilation practised on board, which was almost entirely prevented by introducing a more perfect system of ventilation which I suggested. I desire to call the attention of the Board of Trade to this fact, as more than half the crews of the vessels so employed were reduced in a short time to a perfectly anæmic condition of blood; all eventually succumbed to the mephitic influence, and many, I fear, will be permanently weakened in vitality. This condition was characterised by blood-decomposition and a state of general marasmus of the body, with glandular and intestinal engorgement. Several weeks elapsed before these patients could assimilate nourishment; they required much stimulant. The mortality was trifling, but few of the men were able to re-ship, and had to be sent home as convalescents, probably to become future victims of phthisis. I regret to state again the fact of the large amount of disease prevailing among the seamen arriving here from British ports; the firemen and stokers, as a class, become ruined in health at an early age. Heart disease, glandular and kidney diseases, are quickly developed in them, probably due, in a great measure, to the fact that the function of the skin is almost entirely suppressed under ordinary conditions of temperature. The rule is, that seamen coming to this port are physically below par, and are slow to recover from either disease or injury." "A large number of communications have also been received by the Board of Trade, the general tenor of them being that it is not legislation, but stringent rules on the part of shipowners, that are required, and that it is not true of sailors, though it may be of stokers, that they are, as a class, unhealthy, the contrary being the case. Several correspondents are of opinion that if the Contagious Diseases Act were extended to the different maritime and commercial ports of England, it would be a great boon to seamen."

The hint we gave last week to the Home Hospitals Association chimed in singularly well with the action they have taken. The Committee of the Association held a meeting last week, at which it was decided, consequent upon the recent decision of the Master of the Rolls, to take imme-

diately steps for the sale of Berkeley House, and a report was considered, which had been received from the Medical Board of Reference, signed by the President of the Royal College of Physicians, by Professor Erichsen, F.R.S., Dr. Quain, F.R.S., and other members, and recommending the committee to take a freehold house either in the Western-Central or South-West district. It was shown that the Committee's programme, as laid down in the original prospectus, embraced the above-mentioned decision of the Medical Board. An eligible freehold had accordingly been selected in Fitzroy-square, and, with the consent of the Chairman, the Duke of Northumberland, the house and grounds have already been purchased. It is hoped that the Committee will be able to dispose of Berkeley House without delay, as otherwise their proceedings will be seriously hampered. The Committee further agreed that as soon as this house has been disposed of, an energetic appeal should be made to that large portion of the public interested in the establishment of middle-class hospitals, for an increase of capital to enable the Association to purchase a freehold, and open a home hospital in the Western district. Any purchaser of Berkeley House will have the advantage of finding that its sanitary arrangements have been placed in almost perfect condition.

It is possible that the recent discussion on vaccination has been more widely considered than would at first sight appear likely. At any rate, a wheelwright of Barnes was last week summoned at the Wandsworth Police-court for neglecting to have his child vaccinated. Mr. Paget fined him 20s. and 2s. costs, whereupon the defendant wished to know the alternative in the event of his refusing to pay the fine. He was informed that fourteen days' imprisonment would be the alternative. The defendant, before being removed, begged to be allowed to state the reasons which made him object to vaccination. He said if the Government would provide proper means for vaccination, and have the lymph direct from the cow, he for one would submit to it. Mr. Paget explained that it was open to him to take his child to any medical man he pleased to perform the operation, but by the law he was not allowed to imperil its life and the lives of other children. The defendant was removed to the cells, declaring that he considered there was more danger to be apprehended from vaccination than from small-pox.

It will be remembered that Mr. Chance, the Lambeth magistrate, upon a former occasion expressed, with much regret, his opinion that, under the New Adulteration Act, a man delivering milk ordered by his master's customers was not bound to sell any of the same to an inspector applying for it, to the inconvenience of the said customers. Last week, however, on the subject being again brought before him, he said he had fully considered the matter, and had made up his mind that the sanitary inspectors were bound to be served in the streets on demand, as it would no doubt be very difficult to ascertain whether milk was adulterated, if a man carrying it through the streets to serve regular customers refused to serve an inspector. If such an immunity were allowed, large quantities of milk might be sold without the inspectors being able to ascertain whether it was pure or not. His opinion was, therefore, that an inspector *must* be served, and the answer that "all the milk had been ordered" could not be allowed. Two cases were then submitted to him, in each of which the carriers had pleaded "all ordered," and in each of which the milk was found adulterated with water; and suitable fines were inflicted.

Two matrons have just received the degree of Doctor of Medicine in Paris. One of these ladies is Mrs. Chaplin Ayrton, wife of the Professor of Applied Physics at the City and Guilds of London Institute. Mrs. Chaplin Ayrton commenced the study of medicine at the University of

Edinburgh; but, owing to well-known occurrences her studies there were interrupted, and she re-commenced them in Paris. The title of the thesis she presented to the Faculty of Medicine before obtaining her degree was "*Recherches sur les Dimensions générales et sur le Développement du Corps chez les Japonais*,"—she having accompanied her husband in a visit to Japan. Mrs. Marshall was also one of the Edinburgh lady medical students, and had to start afresh in Paris. The subject of her thesis was "*The Influence of Sex in the Production of Mitral Stenosis*"; and it is said that she proved to the satisfaction of her judges that the disease is much more common in women than in men. Mrs. Marshall is a sister-in-law of Mrs. Garrett-Anderson, M.D.

DIPHTHERIA AT VIENNA.

THIS disease has lately been very prevalent in the Austrian capital. From October 24 to 31 there were 38 cases and 10 deaths; from November 1 to 7, 44 cases and 7 deaths; and from November 8 to 14, 48 cases with 19 deaths. The death-rate from small-pox, measles, whooping-cough, and typhoid fever has been, on the contrary, very low. The diphtheritic cases are distributed over the whole city.

PHILLIPS v. THE SOUTH-WESTERN RAILWAY COMPANY.

THIS came on in the Court of Appeal, before Lords Justices Bramwell, Brett, and Cotton, on the 17th inst. It will be remembered that on a second trial of the case the jury had given the plaintiff £16,000 damages for the consequences of an injury caused by negligence of the Company's servants. The Judge who tried the case (Lord Coleridge) was satisfied with the verdict; but the Company was not, and carried the case to the Divisional Court. That Court refused to disturb the verdict, and the Company appealed from their decision on the usual grounds of misdirection and of excessive damages. Lord Justice Bramwell decided, however, after hearing Mr. Serjeant Ballantine for the Company, that the direction to the jury was right; and that there was no reason to suppose the damages given were beyond what that direction would warrant. The other Lords Justices concurred with him, and the appeal was refused. Mr. Serjeant Ballantine asked for a stay of execution, but the Court said they had no power to order that. It was understood Mr. Serjeant Ballantine's reason for making the request for stay of execution was that the Company intend to carry the case to the House of Lords.

PROFESSOR HEBRA.

OUR readers will regret to hear that the health of this distinguished dermatologist is not good enough to allow him to lecture this winter. His place will be supplied for the present by his son-in-law, Professor Kaposi, the joint editor of his great work on "*Diseases of the Skin*." Professor Kaposi is an excellent teacher, as we know personally, but the temporary loss of Hebra's inimitable demonstrations will be severely felt at Vienna, especially by the large number of our Transatlantic brethren who flock thither to hear him.

THE BARNARD DAVIS COLLECTION.

THE great osteological collection which Dr. J. Barnard Davis, F.R.S., of Shelton, Staffordshire, has accumulated during a long life devoted to anthropological pursuits is well known both in England and abroad as the most rich and valuable ever formed by a private individual, exceeding, as it does, in the variety and rarity of the specimens, all the public collections of this country, and most of those on the Continent. It contains about eighteen hundred specimens of skulls and skeletons of various races of men, the value of which is greatly increased by an excellent catalogue called "*Thesaurus Craniorum*," in which each is fully described and all known

particulars of its history recorded. Many of the specimens are of especial value as belonging to races either entirely or nearly extinct; others are eminently illustrative of the ethnology of the British Isles, as those described and figured in the "*Crania Britannica*" of Davis and Thurnam, or of our colonies and foreign possessions. The owner of this collection has long been desirous of seeing it established in some central and public situation, where it could be made available for future research; and no place seemed so appropriate to him as the Museum of the Royal College of Surgeons of England, as, when united to that already possessed by the College (which, as we have indicated, it considerably exceeds in magnitude), for the first time in this country a collection would be assembled on one spot, worthy of a nation which, notwithstanding its extensive foreign connexions, commerce, and colonies, has hitherto been behind—in this respect—many of our continental neighbours. We believe that at one time Dr. Davis contemplated leaving the collection to the College, but consideration for the interests of his family does not appear to have justified this arrangement, and he has now offered it for the sum of £1000, which, considering its extent and the labour and time taken in its formation, must be considered a very moderate price. Upon this becoming known to the Council, at their meeting on Thursday last, it was the unanimous feeling of all present that it was most desirable that such a collection should be kept entire, and not permitted to leave the country; that it was the duty of the College, as the possessor and administrator of the great anatomical museum of the nation, to undertake the charge of the collection; and that, therefore, the opportunity of acquiring it upon the terms offered by Dr. Barnard Davis should not be lost; and it was referred to the Museum Committee to consider and report whether the needful sum could be provided out of the College funds, or whether it was desirable to seek for aid from other sources. We are sure that not only the profession, but all who are interested in the scientific progress of the country, will feel great satisfaction in knowing that the Council of the College has thus promptly stepped forward to save this noble collection from dispersion or expatriation; and that, should it be thought that the College funds cannot judiciously be taxed at the present time, there would be no difficulty in obtaining the funds necessary for presenting the collection to the College. There must surely be many among us who would gladly take this opportunity of acknowledging their estimation of what the Museum of the College has done and is doing in maintaining the scientific reputation of the country and the profession to which we belong. In anticipation of the collection reaching the College, Professor Flower, the indefatigable and most able Conservator of the Museum, is engaged making great alterations in the wall-cases for its reception.

PATHOLOGICAL SOCIETY OF DUBLIN.

AT the meeting of this Society on Saturday, December 6, Dr. Walter G. Smith showed a remarkable example of multiple pyæmic abscesses of the liver and right lung in a woman aged forty-five years. The liver was enlarged, soft, and friable. Its surface was buff yellow, mottled with innumerable hæmorrhagic spots and yellow patches. The cut surface presented numerous red consolidations, most of them softened and exuding a brownish sanious fluid. In the right lung there were large, badly defined infarctions, from which a yellow puriform fluid exuded. Dr. J. W. Moore presented a specimen of cirrhosis of the kidneys in a hodman, aged nineteen, without any history of alcoholic intemperance, saturnine poisoning, or gout. The heart, free of clots, weighed fifteen ounces and a half. There were hæmorrhagic infarctions in the lungs. There had been double hydrothorax during life.

THE METROPOLITAN ASYLUMS BOARD.

At the last week's meeting of the Metropolitan Asylums Board, a letter was read from the Local Government Board, authorising the managers to spend £9000 in furnishing the Darent Adult Imbecile Asylum, now approaching completion. It was also agreed that, subject to the sanction of the Local Government Board, the salary of a medical superintendent at this Asylum should be £400 a year, with house, planned furniture, coals, gas, milk, and vegetables. The Caterham Asylum Committee reported the resignation of Dr. James Adams, who had held the position of Medical Superintendent since the opening of the Asylum, upwards of ten years ago, and, after acknowledging Dr. Adams' services, recommended that the resignation be accepted. A letter was read from the Hackney Guardians, expressing a desire that the small-pox hospital annexed to the Homerton Fever Hospital, now used as an asylum for enteric fever patients, should be prepared at once for small-pox cases. The returns from the small-pox asylums showed that the number under treatment was 41, a decrease of 9 on the previous fortnight, and that the Board had 750 beds at its disposal, without opening the Homerton or Stockwell Hospitals for cases of this disease. The fever cases admitted to Stockwell Asylum since the last return numbered 75; 15 had died, and 46 had been discharged, leaving 238 still under treatment. At Homerton Asylum during the fortnight 78 fever patients had been admitted, 9 had died, and 42 had been discharged, leaving 260 cases under treatment; an increase of 31 cases for the fortnight. Mr. Barringer, supported by Surgeon-Major Bostock, C.B., urged the necessity for attention being called to the great increase of infectious fevers at the East-end, and it was referred to the Chairman of the Hospital Committees to consider and report on the subject.

CARBOLIC ACID POISONING THROUGH THE PREVIOUSLY HEALTHY SKIN.

Dr. EDWARD ZILLNER, assistant to the Professor of Medical Jurisprudence at Vienna (*Wiener Med. Wochenschrift*, No. 47, 1879) relates the following interesting case:—A young child of fourteen months was trying to raise itself up in the street by means of a can belonging to one of the municipal "disinfecting officers," which contained about a litre of 30 to 40 per cent. carbolic acid solution. In so doing it upset the contents of the can over itself, so that nearly the whole of the front of its trunk and extremities were wetted by the acid. The accident happened on June 30 at 3 p.m., and the child was almost immediately after taken to the hospital. It was deeply comatose, with a very weak, uncountable pulse. There were abundant râles over both lungs. It died without recovering consciousness at 4 a.m., July 1. No smell of carbolic acid could be detected in any of the organs of the body at the autopsy, but the urine contained whitish flocculi, and on the second day had turned of a dirty brown colour, while Professor Ludwig detected carbolic acid in it on chemical analysis. The coma could not be accounted for by any injury to the head or any disease of the brain. The bronchial catarrh appears to have been an affair of some standing, the child being also rickety and delicate. Dr. Zillner gave it as his decided opinion—a judicial inquiry having been opened—that the carbolic acid was the cause of death; but a second physician ascribed the latter to the bronchitis. A third, however, appointed as arbiter, entirely agreed, as most people would probably be inclined to do, with Dr. Zillner. The case is nearly, if not quite, unique as an example of fatal carbolic acid poisoning in an individual whose skin was previously quite healthy. A very similar case has been published by Sandwell (*British Medical Journal*, October 8, 1870), but the child was ill at the time with pleurisy and

intestinal catarrh, and may have succumbed to them. Dr. Wicke, of Göttingen (*Deutsche Klinik*, 1869, Nos. 19 and 20), records a case in which a patient died a few minutes after carbolic acid had been painted on his scalp, but here the skin had been affected for twelve years with favus. One point in Zillner's case deserves notice—the large amount of ante-mortem coagulation of the blood. As a rule, the blood remains fluid after carbolic acid poisoning. The only exceptions appear to be those cases where, as in Zillner's, the agony is much prolonged.

THE HEALTH OF TOTTENHAM.

Dr. W. TYNDALL WATSON has presented to the Tottenham Local Board of Health a report on the health of the district during the last quarter, which he is able to characterise as a favourable one. The total number of deaths from all causes amounted to 132, against 153 in the corresponding quarter of 1878. The deaths from the seven principal zymotic diseases are returned as 25, against 42 in the same period of the preceding year. The annual death-rate per 1000 from all causes was 15.5, against 18 in the third quarter of last year. No deaths were reported in the neighbourhood, during the period under notice, from small-pox, measles, scarlet fever, diphtheria, or enteric fever; and this exemption from measles is specially remarkable, considering that the disease was extremely fatal both in East and North London (in Islington no less than 140 deaths from measles were recorded in eleven weeks). The deaths from diarrhoea in Tottenham were less than half the number in the corresponding quarter of last year—due, no doubt, to the low temperature, especially in July, when the mean temperature was only 58.1°, or 3.5° below the average for the corresponding month for 100 years. Dr. Watson's report makes no mention of the water-supply of the locality, which, it will be remembered, is obtained from deep wells in the neighbourhood, and which contrasts very favourably in point of purity with the supplies delivered by the various metropolitan companies.

THE PARIS ASSISTANCE PUBLIQUE AND THE COLD WEATHER.—The Assistance Publique has instituted several measures in relation to the great and prolonged cold. Finding that more than 100 patients per diem have to be refused at the hospitals owing to the want of sufficient accommodation, they have opened additional wards at the Mènilmontant and Laennec Hospitals, and have placed supplementary beds in the other hospitals: wards at the Lariboisière, for example, which should have but thirty-four beds now have forty-five. Refuges are also opened for the temporary reception of patients who cannot get into the hospitals, and soups are distributed to the indigent at the hospitals. The wards, which are very cold with the present calorifiers, are to have additional stoves. The public is liberally responding to the appeal for assistance, so that 200,000 francs have been received within twenty-four hours; and the Paris Conseil Municipal has voted 400,000 francs.—*Gaz. Méd.*, Dec. 13.

BROMIDE OF POTASSIUM IN PERTUSSIS.—Dr. Körner, of Trebniss, writing in the *Berlin. Klin. Woch.*, November 7, says that he should not have repeated the recommendation of inhalation of the bromide, which he formerly published, had not a recent epidemic of wide extent given him ample reason for recurring to the subject. He treated all his cases in this by inhalation, effecting a cure in a proportionally short time. He employed a solution of from 2 to 5 per cent. (usually 4 or 5), about twenty grammes of which were inhaled three times a day. The effect was surprising. After the first inhalation decided improvement was observed, and in from three to five days the paroxysmal cough had ceased, and the expectoration had become easy. In a couple more days the pertussis usually had ceased. As a general rule, the children inhaled readily, and far more so than they would have taken medicines. He attributes the little repute this means has hitherto acquired to a mismanagement of the apparatus, and he advises the medical attendant to most carefully instruct the friends of the child in its use.

FROM ABROAD.

POPULATION OF FRANCE.

THE *Union Médicale* (December 2) transcribes from the second edition of the *Annuaire Statistique de la France*, published by the Minister of Agriculture and Commerce, the following figures:—

The resident population of France—36,905,788 in 1876—represents a mean of about seventy inhabitants per square kilometre. The departments in which the *specific population* is largest are the following:—La Seine with 5035 inhabitants per square kilometre, Le Nord with 267, and Le Rhone with 253. The departments in which it is smallest are, La Lozère with 27 inhabitants, Les Hautes-Alpes with 21, and Les Basses-Alpes with 19. As regards *nationality* there are 36,104,084 French (including 126,243 Alsaciens-Lorrains who have *opté*), 34,510 naturalised foreigners, and 801,754 foreigners. Of these, Belgians amount to near 375,000, Italians to more than 165,000, Spaniards to 62,500, Swiss to 50,200, Germans to near 60,000, and English to 30,000. The population is divided with respect to the *civil state* into 18,373,639 males, and 18,532,149 females. Of the males there are 9,798,581 celibates (6,046,339 being minors under 18 years of age), 7,588,929 married, and 986,129 widowers. Of the females 8,943,843 are celibates (4,943,867 being non-nubile), 7,567,241 married, and 2,021,065 widows. Classed according to *age*, the maximum (3,228,000) is found between the ages of 20 and 25. This maximum, which is nearly attained in the two preceding quinquennial periods, descends in that from 25 to 30 to 2,610,000, and continues at 2,500,000 until towards 40, descending during the ensuing quinquennial period to 200,000, to arrive at 230,000 for the period 80 to 85, leaving 2613 persons aged from 95 to 100, and 194 of more than 100 years of age. The tables exhibit the frightful infantile mortality that takes place, showing the necessity of the persevering execution of the laws which have been passed for the protection of the lives of infants. The number of females between 5 and 10 years, and of those who have attained 20, is a little larger than that of males. Between 60 and 65 the total of living men notably exceeds that of women; but in extreme old age the proportions are reversed. Of persons living over 100 years, 146 were women and 48 men. Women marry much younger than men. Of their total in 1876, 62,733 married before 20, and 112,052 between 20 and 25. The greater number of men (105,660) married between 25 and 30, and 49,871 married between 30 and 35. As many as 5367 women found husbands when above 50 years of age, and 3761 men found wives when above 60.

Leaving out Paris, and considering the marriages, births, and deaths in large categories of the population, the following facts come out:—The urban population (12,000,000) furnishes 250,890 deaths, and the rural (25,000,000) 522,378 deaths, January being the month in which most deaths occur, after which come August, March, February, April, May, and September. There were 75,036 marriages among the urban and 194,956 among the rural population, the months in which most marriages took place having been February and November, and those in which fewest occurred December and March. There were 266,047 births among the urban and 634,888 among the rural population, the most productive months being March, February, January, and May. Comparing the population of 1869 (36,855,178), which is nearly the same as in 1876 (36,905,788), notwithstanding the loss of territory, it is found that in 1869 there were 303,482 marriages, and in 1876, 291,393; in 1869 there were 948,526 births, and in 1876, 953,364; and in 1869, 864,320 deaths, and in 1876, 834,074. From this it is seen that if the mortality has become less, the marriages and births have also diminished.

PROFESSOR PETER ON LOCAL TEMPERATURES IN DISEASES OF THE ABDOMEN.

Prof. Peter, in continuation of his investigations on morbid local temperatures, communicated to the Académie de Médecine (*Gaz. Médicale*, Dec. 13) the first part of a paper "On Morbid Local Temperatures in Diseases of the Abdomen."

It results from these investigations that in ascites the temperature of the abdominal wall does not rise, but con-

tinues at about 35.5° Cent. (which is the normal mean, and sometimes even falls below this). Prof. Peter criticises the language of those who give the name of ascites to the serous effusion of chronic peritonitis, this effusion being not dropsical, but inflammatory, as is demonstrated, amongst other circumstances, by the excess of fibrin which it contains. Contrary to what is observed in ascites—that is, dropsy of the peritoneum—*chronic phlegmasias of this membrane raise the temperature by one degree or more*. Prof. Peter gives as examples three cases of different types of chronic phlegmasia of the peritoneum—1. Simple chronic peritonitis radiating from a chronic phlegmasia of the stomach (sclerous gastritis); 2. Chronic tubercular peritonitis; 3. Chronic cancerous peritonitis. In the first case the local temperature of the abdominal wall was raised by 0.8°, when that of the axilla was lowered by 0.5° (the temperature of inanition)—so that the absolute local super-elevation amounted to 1.3°. In the tubercular peritonitis the super-elevation varied from 1° to 1.9°, and presented the remarkable peculiarity that, during the last hours of life, the axillary temperature was lowered by 2.5° (to 34.5°), the local temperature being still elevated 1° above the normal (36.5°) of the abdominal wall—exceeding absolutely that of the axilla by 2°, and being relatively greater by 3.5°: proving the existence of morbid thermogenous centres, the local temperature of which is so far independent of the general temperature that it may be superior to it. In cancerous peritonitis the local super-elevation varied from 0.8° to 2°. In a fourth case (of tubercular peritonitis, which was mistaken for a hysterical tympanites) the super-elevation varied from 1° to 1.5°, and was one day 0.4° higher than in the axilla.

Thus, in a clinical point of view, this super-elevation of local temperature in chronic peritonitis furnishes a new means of diagnosis between chronic peritonitis and ascites, in which the temperature remains normal. With respect to general physiology, ascites does not raise the normal temperature because it is a mere physical fact—the filtration of the serum of the blood through the distended walls of the veins: while chronic phlegmasia *always raises this local temperature*, because there is here a dynamic act, a process—the secretion of a fibrinous serosity. Whence it follows that, in pathology as in mechanics, whenever there is work accomplished there is caloric disengaged, which disengaged caloric, representing a process accomplished, may become a means of diagnosis of this process. This idea of morbid work done need not be confined to the secretion of an inflammatory morbid product, but may be extended to genesis of a neoplasm (tubercle or cancer), and to the evolution of this—the caloric disengaged on this occasion revealing the origin and the phases of the evolution of this neoplasm.

M. Hillairet observed that he had made some investigations on local temperatures in disease of the skin, but had abandoned them in consequence of the considerable differences he had observed in the results. He wished to know what thermometer Prof. Peter employed. In reply, Prof. Peter said that he used the ordinary thermometer, which always gave him very exact results. He regarded it as preferable to the discoid thermometers employed in England, which have the inconvenience of not being able to be applied in the intercostal spaces. There are other instruments of great precision, but of difficult employment. M. Noel Guéneau de Mussy spoke favourably of the thermometer employed by Dr. Seguin of New York.

UNIVERSITY OF DUBLIN.—At the Winter Commencements, held on Wednesday, December 17, 1879, in the Examination Hall of Trinity College, the following degrees in Medicine and Surgery were conferred by the University *Caput*:—Baccalaurei in Chirurgiâ: Georgius Henricus Manning, Wallace Beatty, Johannes Almericus de Courcy Williams, Joseph Dallas Pratt, Robertus Henricus Johnston. Baccalaurei in Medicinâ: Georgius Henricus Manning, Wallace Beatty, Malcolm Henricus Moore, Ricardus Henricus Stewart Sawyer. Magister in Arte Obstetriciâ: Gulielmus Henricus White. Magister in Chirurgiâ: Gulielmus Ireland Wheeler. Doctores in Medicinâ: Thomas Kinley Hamilton, Nicholas Johannes Halpin, Edmundus Sharkey, Gulielmus Alexander Fitzgerald, Stephanus Flood (*in absentia*). The following honorary degree was also conferred:—Doctor in Utroque Jure: Jacobus Henricus Reynolds (*honoris causa*).

REVIEWS.

On the Value of Human Life; or, the Present History and Possible Future of our Hospitals. By the Rev. J. DODD, M.A. Oxford. Oxford and London: James Parker and Co. 1879.

THE author of the foregoing volume has evidently been at great pains to compile a history of hospitals from the very earliest days, since he begins by describing the efforts in this direction of St. Chrysostom and St. Basil, and continues the narrative down to the present day. A great deal of attention has been bestowed upon the method of working existing hospitals, the system of nursing introduced, and the necessity for encouraging the extension of provident dispensaries as a means of cultivating a spirit of self-reliance amongst the people. Mr. Dodd notes with regret that the annual reports of most institutions show balances on the wrong side, in every case due to increase in present expenditure; and he remarks that with the large increase of population and wealth in modern days, the subscription lists of the various hospitals do not show a corresponding accession of names; he does not, however, suggest any practical way of remedying a state of affairs which, equally with him, we must all deplore. The volume is dedicated to Viscount Cranbrook, and if not distinguished by anything particularly novel, will be found to contain much that is interesting to those who busy themselves in the welfare and working of our hospitals.

Practical Surgery, including Surgical Dressings, Bandaging, Ligations, and Amputations. By J. EWING MEARS, M.D., Demonstrator of Surgery in Jefferson Medical College, etc. With 227 illustrations. Philadelphia: Lindsay and Blakiston. 1878. Pp. 279.

IF, as has been said, attention to minutiae is the high road to success in practice, Dr. Mears has given material assistance to those who are commencing practice as surgeons. The work before us is from beginning to end devoted to the details which require attention in surgical manipulations, from the dressing of a wound to the performance of the most formidable operations. It is divided into four parts, treating respectively of Surgical Dressings, Bandaging, Ligations, and Amputations; but nothing is said of numerous operations equally entitled to notice—as tracheotomy, herniotomy, etc.—and in which minute attention to details is at the least equally necessary.

Part I., which will perhaps be of more service than the others to those engaged in general practice, deals exhaustively, in the first place, with the varieties of compress which may be used, such as lint, charpie, cotton, wool, oakum, muslin, linen, etc. Then impermeable coverings for the compresses are considered; and lastly, plasters for retaining them. The author's directions how to cut plaster may be taken as an example of the minuteness which pervades the whole book. "In cutting strips, the scissors should be applied with the blades *very slightly open*, using the cutting edges of the points only, and dividing the plaster *lengthwise*, and not *crosswise*. The division should be effected by pushing the scissors along, and not by closing the blades, the piece being firmly held by an assistant."—(Page 18.) Next come poultices and modes of irrigation; and the instruments required for dressing wounds. This section is accompanied by cuts of every instrument that one can possibly require, and a drawing is given of a very neat but conventional pocket-case.

Having described all the requisite materials, the author proceeds to give instructions for the proper preparations for operations. The rules he lays down are not new, but they are well given and are very good, and it would be well if they were carefully observed in all London hospitals. "A sufficient number of assistants should always be present. . . . usually three are required—one to support the part, one to attend to the sponges and supply of water at the proper temperature, and a third to hand the dressings and instrument. Before exposing the wound the assistants should be assigned to their respective positions, the dressings prepared, and everything in readiness. The rubber cloth should be placed so as to protect the bed, and the part lifted by the assistant, and held in an easy position. The soiled dressings should be removed carefully, placed in a covered vessel, and

taken from the room," etc. A brief survey of the antiseptic system concludes this part.

The subject of the next part—namely, bandages—is treated in the same exhaustive manner, every variety of bandage being described and illustrated by a woodcut. The extreme neatness of the bandages figured in the cuts is a thing to be aimed at, but we doubt the possibility of carrying it out constantly in every case in practice. A special section in this part is devoted to Sayre's plaster jacket for spinal curvature.

The other parts of the work are, as far as they go, as full and as well illustrated as are Parts I. and II. Thus we have in the small volume before us a summary of the subject of practical surgery, with the omissions above noticed, due space being allotted to the most recent inventions and improvements. It will be observed that the author confines himself to descriptions of apparatus and rules for their application, leaving to larger works the function of pointing out the proper cases for the use of each. This, so far, is well, but it would have been better if he had expressed some preference for one mode of treatment or dressing over another, as the large selection given to choose from may be perplexing to anyone who turns to the book for advice in any given case.

Elementary Anatomy, Physiology, and Hygiene for the Use of Schools and Families. By EDWARD PLAYTER, M.D. (Editor of the *Sanitary Journal*). Toronto: Hart and Wilkinson, 5, King-street West. 1879.

THIS little handbook of 168 pages is divided into two parts—Elementary Anatomy and Physiology, and Elementary Hygiene,—and if the first of these had been omitted there could have been nothing but praise for a very practical and useful compilation on matters connected with hygiene. But when the author in his preface explains that he has endeavoured to give in this work all the facts that it is necessary for anyone not a physician to know, yet not more than every girl and boy, without exception, should be familiar with before leaving school or completing education, we cannot quite endorse his views. "A little knowledge is a dangerous thing," and this applies most forcibly to a partial study of the medical sciences; it is too apt either to create a morbid feeling of anxiety under the most trivial circumstances, or to engender misplaced and unreasoning confidence under grave conditions. In both cases the medical practitioner (unnecessarily summoned in the first, dangerously kept at a distance in the last) will find his patient more difficult to treat than if he had never acquired this smattering of knowledge; and therefore, however clearly and simply the opening part has been dealt with, we cannot commend it for the object for which it was written.

PROVISION FOR THE INSANE IN THE DEPARTMENT OF THE SEINE.—In his report to the Paris Municipal Council, Dr. Bourneville states the following as the condition of the establishments for the insane in Paris:—1. There are three departmental asylums, Ste. Anne, Vaucluse, and Ville-Evrard, which together furnish 2460 beds; 2. The *quartiers* set aside at Bicêtre and Salpêtrière, furnishing 1320 beds; 3. Asylums in other departments furnishing 4125: total, 7905 beds. The number of days passed in the hospital (for 1878, calculated for 1879) was 2,816,382, at a price varying at the different establishments from 2 frs. 56c. to 1 fr. 22c. per diem.—*Progrès Méd.*, December 12.

GERMAN HOSPITAL, DALSTON.—On Saturday evening, December 20, the Amateur Orchestral Society (President, H.R.H. the Duke of Edinburgh) will give, at the Royal Albert Hall, their first concert of the season in aid of the funds of the German Hospital at Dalston. The programme includes, besides several orchestral performances by the Society, solos by the following distinguished artists, who have kindly given their assistance:—Miss Minnie Hauk, Madame Norman Néruda, Mdle. Marie Breidenstein, Herr Henschel, and Mr. Charles Hallé. The concert takes place under the immediate patronage of H.R.H. the Prince of Wales, H.R.H. the Duke of Edinburgh, her Royal and Imperial Highness the Duchess of Edinburgh, and their Royal Highnesses the Duke and Duchess of Connaught, who have graciously promised to be present on the occasion.

FOREIGN AND COLONIAL CORRESPONDENCE.

CROUP AND DIPHTHERIA AT SMYRNA.

[To the Editor of the Medical Times and Gazette.]

SMYRNA, November 26.

SIR,—I am much interested in the discussion which has lately taken place concerning croup and diphtheria: will you kindly give me a corner in your journal to give my experience in the matter? I have been practising here for the last thirty-five years. During the first twenty of those years I saw cases of croup only. I used then to see a great many cases of ophthalmia, and I observed that when the inflammation of the conjunctiva put on an oedematous or puffy character (which often happened) then I was sure to see cases of croup. They were, in fact, cases of "oedema of the mucous membrane" at the entrance of the larynx—"oedematous croup." Treated with emetics of ipecacuanha, the dry, ringing cough and respiration were succeeded by a moist, but harsh, cough and respiration, which were the beginning of an attack of bronchitis. Few or none of those treated early in the disease succumbed. I have seen very few adult sufferers. One lady, however, twenty-two years of age, died of this disease. I saw her in consultation, and think now that tracheotomy might have saved her. One or two cases in children were fatal (neglected cases in the commencement); I think now they should have been operated on, and might very probably have been saved. If I remember rightly, the great Washington died of this disease; and very probably he would have been saved by operation.

This croup, as all know, begins suddenly. Before midnight the child is put to bed well, and suddenly awakes in a state of extreme dyspnoea. A child once attacked by croup is subject to many relapses. Diphtheria begins insidiously, and one attack generally protects the patient ever afterwards. Croup has no sequelæ; these latter are very often more serious than the original disease, as in scarlatina. One is a local disease, the other constitutional. But the question is, Are there any cases of "membranous croup" distinct from diphtheria? In my experience, decidedly No. But there are cases of diphtheria complicated with croup, and I believe such cases will be found in children "previously subject to attacks of croup." I have seen such lately, but not in the twenty former years, though I looked for them; and in one case, a French surgeon practising here said he saw false membrane in the back of the pharynx in a child we were treating together; but I could not see it. He was well acquainted with the works of Bretonneau, who gave, I believe, diphtheria its name. I will detail a late case which I consider to have been diphtheria complicated with croup. My family have a predisposition to croup; and all, with one exception, have had several attacks of severe croup. A little grandson, born in India, was, and still is, subject to attacks; he is four years old. These attacks always began very suddenly, without any previous indisposition, and yielded to emetics of ipecacuanha, repeated if necessary. Last summer he was noticed to have a slight cough and some slight wheezing in his respiration, but the appetite and spirits were as usual. He was put to bed; but a short time after, before the usual hour of his attacks, he was suffering from dyspnoea and cough, but not quite as on former occasions; "more moist." He had, however, an emetic, which relieved him. Next morning, some redness of throat and cough, but at night again worse. Had an emetic again. His appetite was good, and he took nourishment. On this day two of my colleagues saw him. It was decided to continue emetics when respiration was difficult. Next morning one of my colleagues (Dr. Carpentier), on examining the throat, said he saw some false membrane at the base of the tongue; but neither myself, nor Dr. von Eichtorff, nor my son (Dr. J. P. McCraith) saw it; but, as diphtheria was prevalent, we thought that Dr. Carpentier's opinion most probably was right. Some powders of chlorat. potassæ with ext. cinchonæ were prescribed; the throat to be touched frequently with hyposulphite of soda 3j. in 3j. glycerine—a local application which I have found more useful than any other in cases of false membrane. In the evening a patch of false membrane about the size of a shilling had formed on the left tonsil. The child took

nourishment freely; a little wine in coffee occasionally. Dyspnoea, though the respirations were full and not very accelerated. To continue medicine. Next morning had a patch of membrane on right tonsil, corresponding to that on left. Local application to be frequently applied. By next morning false membranes had quite disappeared, but dyspnoea continued. As emetics of ipecacuanha acted easily on the little patient, and left no exhaustion or apparent ill effect, an occasional emetic was given. The temperature of the apartment was regulated, and a jet of steam was kept up into the room from an apparatus outside, arranged by Dr. J. P. McCraith. In fine, the dyspnoea continued with violent exacerbations occasionally. Seeing that life was most seriously threatened, it was resolved to have recourse to tracheotomy. I had some hope in this case, as I was persuaded that the lungs were free, and that the difficulty and danger lay in the state of the rima glottidis and parts about, though some fears were expressed that the membrane had got down in the bronchi. This was the seventh day of his illness. The respiration had become seriously impeded, with occasional attacks of dyspnoea, in which the little fellow started to his legs, grasping at his mother's face, with eyes "starting out of his head," in vulgar parlance. The operation was confided to Dr. Carpentier, as he had already performed it. Half an hour after the operation the little fellow was calmly sleeping on his mother's breast, respiration and pulse quiet. In fact, the operation snatched him, as it were, from the jaws of death. This case is perfectly analogous, in its results at least, to that mentioned by the great (really great) physician Trousseau in his work, in which he says, "the little patient in half an hour after operation was playing about with his playmates, rescued from impending death." It is evident that no false membranes had formed in the bronchi in this case, and that death was threatened by an impediment at rima glottidis. Those cases operated on require great care, and constant watching after the operation, to keep the tube clean, and in proper position, etc. This little fellow wore it a week. On trying occasionally we found that the tube could not be dispensed with. He was, however, gradually improving in every respect. On the eighth day, towards evening, he was seized with uneasiness (irritation in the bronchi) in a threatening manner. I immediately took away the tube, and things quieted down, and after that the little fellow steadily improved.

I give the details of the case, as it may serve to mark a category of cases in which the operation is not only allowable, but in which it should be had recourse to as a duty. It is so rarely useful that I think it should be banished except in special cases. I am informed of its being performed thirty times by a hospital surgeon in Paris without a single success; and, in fact, almost all I have seen die of the disease have not died of impediment in the glottis (in which case it can alone be useful), but the patients have died of the general effects.

If called on to perform tracheotomy for an adult I should be much inclined to make the opening transversely. By throwing back the head, I am persuaded that the tube may be dispensed with in the transverse opening. I found my opinion on the following facts:—Many years since I was called to see a woman who, in a fit of insanity, had cut her throat. The cut was made by a razor, below the thyroid, I believe. It was in the country; no surgeon was to be had, so a shoemaker, a neighbour, brought his waxed cord and awl, and very neatly stitched up the external wound. On my arrival, some hours after, I found the patient as if in an attack of croup; great difficulty of respiration. Evidently the impediment existed in the larynx and upper part of the throat. I immediately cut open the shoemaker's stitches, threw back the head, and my patient breathed freely through the wound, which I left open for several days, until, in fact, I found that the throat was free, and no difficulty caused by shutting up the wound. The second case was a few years since. A young man, whilst shaving, wearing only his drawers, in a fit of despair or insanity, cut his throat with the razor, then inflicted a terrible gash on his abdomen, just beneath the edge of the liver, five or six inches long—the transverse colon protruded through the wound; and, not satisfied with this, he made a gash in his left arm just above the elbow-joint, cutting down to the bone. I stitched up the two latter wounds, but the throat wound I let him breathe through (which he could do very freely) for several days. These cases have left on my mind the impression

that the proper operation of tracheotomy in *adults* will prove to be the "transverse" or "horizontal" incision. The fat and short, and not very prominent, neck in children may make it not so advisable in their case.

I am, &c.,

JAMES MCCRAITH, M.D., F.R.C.S.,
Surgeon British Seamen's Hospital, Smyrna.

P.S.—The little fellow whose case is detailed above has had attacks of croup on two occasions since the operation. An emetic of ipecacuanha at once relieves, but I have found that six or eight grains of quinine, given in the morning, prevent completely their recurrence on the following night; in fact, the disease, as if it were fever and ague, is arrested, cut short, by quinine. I would recommend its trial in those cases.

GENERAL CORRESPONDENCE.

DISTINCTION BETWEEN TYPHUS AND TYPHOID FEVERS.

LETTER FROM DR. A. P. STEWART.

[To the Editor of the Medical Times and Gazette.]

SIR,—When I read Dr. Perry's letter in your issue of December 6, I began to fear that I had really done his father injustice. Before condemning myself, however, I procured vol. xlv. (1836) of the *Edinburgh Medical and Surgical Journal*, and carefully re-perused the letter of Dr. Perry, sen. My opinion now is that his son would have done well "*quieta non movere*."

Let me premise that before July, 1836, I was not a frequenter of the Fever Hospital, though I paid occasional visits to its wards, as when, early in 1835, I accompanied thither my friend Dr. Peebles, who then pointed out to Dr. Perry the typhus eruption, which had never till then been noticed or recorded in Glasgow. Nor, after my appointment as Resident Clerk, was I attached to the service of Dr. Perry, though I sometimes acted as his clerk in his clinical wards. I, of course, knew at that time that Dr. Perry had "new views" on fever, but they were so perplexing that, being in the midst of it night and day, I preferred studying it for and by myself, and, later on, in company with Andrew Anderson.

The document in which Dr. Perry laid his views before the Glasgow Medical Society is entitled "Observations on Continued Fever, as it occurs in the City of Glasgow Hospitals" (*loc. cit.*, pages 64 to 70). It consists (1) of a preliminary statement regarding the provision made for the accommodation of fever patients, and the numbers received during the epidemic of 1831 and that of 1833 to 1835; and (2) of sixteen propositions, wherein he describes pretty fully the characteristic features of contagious typhus and *dothineritis* or *gastro-enteritis*, as enteric fever was then commonly called. Proposition 14, quoted by Dr. Perry *fil.*, is as follows:—"That inflammation of the membranes of the brain, of the bronchi, and of the mucous membrane of the stomach and intestines, and various febrile affections arising from cold, fatigue, improper ingesta, etc., etc., more particularly disease of the aggregated glands of the ileum and the mucous follicles, often termed *dothineritis* or *gastro-enteritis*, have been too often confounded by medical practitioners with typhus fever, though they are characterised by dissimilar symptoms, and require a very different mode of treatment."

This statement, if it had stood alone, might have been held as affirming in a very general way the difference between typhoid and typhus; and the enumeration of the symptoms characteristic of the former, when it exists as a disease *per se*, in the two long paragraphs of proposition 16, gives a good, though in one respect very defective, description of the disease. But, as conditioned by his own statements in other propositions, the *specific* difference becomes very shadowy. Your correspondent candidly admits that his father "committed the mistake of stating that the intestinal glandular lesions so characteristic of enteric fever may be found as a complication in a proportion of typhus cases." Here are the words, and with them proposition 16 commences:—"That *dothineritis*, or enlargement of the mucous follicles of the smaller intestines and enlargement and ulceration of the aggregated glands of the lower third

of the ileum, occurs in combination with contagious typhus, and is to be met with in about one in six of those who die from typhus. It also exists as a disease *per se*," etc. And further on—"When in combination with typhus, all the symptoms are aggravated in severity after the fourteenth day, and become more distinctly marked. This disease," he goes on to state with equal precision, "is an equally frequent accompaniment of small-pox as of typhus, and presents the same morbid appearances after death." To us, with our well-defined views of the disease, these statements appear as startling and perplexing as they did to me when I commenced my study of it in 1836.

What, then, was Dr. Perry's idea of the nature of this disease, which could thus so often complicate both typhus and small-pox? That it was not a contagious exanthem is plain from the decisive terms of proposition 12—"That contagious typhus never exists in combination with any of the other contagious exanthematous diseases." From this statement—or *law*—and from his omission, before alluded to, of all reference to the typhoid rash in his enumeration of the symptoms of *dothineritis* (proposition 16), it is quite clear that Dr. Perry had altogether missed the master fact of its being one of the specific exanthematous fevers, whether contagious or non-contagious.

There remains but one other touch to complete the picture. Proposition 8 is as follows:—"That contagious typhus is often to be met with in combination with other diseases, usually of a local character, as of the lungs, the mucous membrane of the stomach and intestines, more particularly the aggregated glands of the ileum, or the membranes of the brain." *Dothineritis*, then, according to Dr. Perry's recorded opinions in 1836, was a disease which was "often met with in combination with" typhus and small-pox; was not a specific exanthematous fever; and was regarded by him (proposition 8) as a typical instance of a "disease of a local character."

Did I do wrong in studying the subject for myself, when my observations soon led me to the conclusions that typhoid did *not* frequently complicate typhus and small-pox, but was entirely distinct from both; and was *not* a local but a general affection, of which the intestinal lesion was but an important symptom—in short, a specific exanthematous continued fever? These were my beliefs in the spring of 1840, as they are at this good hour; and I don't see why I should not repeat the words to which Dr. Perry takes exception: "I am not aware that in 1840 any persons in this country besides Dr. John Reid and myself were convinced of the specific difference of the two diseases."

As regards the statement in my original paper, that the Peyer's patches were distinctly elevated in two out of twenty-two cases of typhus, let me refer Dr. Perry to the paragraph on pages 333 and 334 of vol. liv. of the *Edinburgh Medical and Surgical Journal*, 1840, where he will find his objection fully anticipated. I need only quote the following sentence:—"When, therefore, we speak of the elevation of the aggregate glands in typhus, we are no longer occupied, as in typhoid fever, with the measurement of palpable magnitudes, but, for the most part, with elevations which the French pathologists, as I have frequently witnessed, scarcely reckon any deviation from the healthy state." I am, &c.,

Grosvenor-street, W., December 17. A. P. STEWART.

ABUSE OF MEDICAL CHARITIES.

LETTER FROM THE HON. SECRETARIES OF THE BRADFORD MEDICO-ETHICAL SOCIETY.

[To the Editor of the Medical Times and Gazette.]

SIR,—The Secretaries of the Bradford Medico-Ethical Society would feel obliged to those of your readers who are well versed in the administrative department of any general or special hospital, and who will be kind enough to inform them whether they can suggest any check in the giving of medical or surgical relief to those who are able to pay for private medical or surgical advice. The abuse of charities in this way is recognised throughout the kingdom, and we are anxious to hear of any remedy whereby this great abuse may be minimised.

We are, &c.,

JOHN ARTHUR, } Hon. Secs.
JOHN DUNLOP, }

Bradford Medico-Ethical Society, 35, Manor-row,
Bradford, December 15.

PRESCRIPTIONS OUT OF DATE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Referring to the remarks in the *Medical Times and Gazette* of last week, I venture, as a prescribing practitioner of thirty years' standing, to submit my opinion that a practitioner cannot be considered answerable for a mishap in the use of a prescription after the expiration of the period allowed for taking the medicines prescribed. If, for instance, a prescription is given for a mixture, of which a sixth part is to be taken at bedtime, the responsibility of the practitioner is sufficiently defined. At the end of the week the prescription is out of date; it has expired by efflux of time, as the lawyers say. Whatever latitude may be allowed to a patient in the use of a prescription, without fresh directions from the prescriber it is obvious that the prescriber is not answerable for the consequences of continuing the use of the medicine for an indefinite period, or for taking it in irregular doses.

I am, &c.,

E. D. R.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, DECEMBER 2.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

(Concluded from page 679.)

PRIMARY CANCER OF THE GALL-BLADDER.

DR. NORMAN MOORE exhibited a specimen illustrative of this condition, taken from a female aged fifty-nine. For five years she had had some abdominal swelling, but painful symptoms came on about three months before her death. A globular mass was felt during life in the site of the gall-bladder. The patient vomited frequently, and died of exhaustion. The whole wall of the gall-bladder was infiltrated with medullary cancer, which was continuous with a mass of infiltrated lumbar glands surrounding the duodenum and pancreas. The common duct was pervious, but the cystic duct was occluded, and the gall-bladder contained four large gall-stones with many smaller ones. There had been compression of the duodenum, and the stomach was found enormously distended. There were no cancerous masses in the liver substance; but two small nodules were seen on its surface near the gall-bladder, and a few small nodules also occurred on the pleuræ. Dr. Moore thought the case clearly one of primary cancer of the gall-bladder, with a possible origin in the irritation of the gall-stones present in the organ. A remarkable feature was the absence of jaundice.

Dr. WM. EWART alluded to a case of obstructive jaundice he had lately seen, in which he found, post-mortem, scirrhus cancer of the pancreas leading to occlusion of the bile-ducts. The gall-bladder contained several calculi; and the speaker suggested that irritation from their presence spreading along the ducts had induced the cancerous disease, which had in that case affected the pancreas primarily.

Dr. COUPLAND also exhibited a specimen of primary cancer of the gall-bladder. The tumour formed a firm white mass the size of a cocoa-nut in the anterior part of the right lobe of the liver. In the centre of the growth was a small cavity full of calculi, evidently the remains of the sac. The growth was adherent to, and had invaded, the abdominal parietes and the first part of the duodenum, but the common bile-duct was not occluded, and there was no jaundice. There were no distal growths. Microscopical examination had not been completed, but so far it seemed to belong to the epitheliomata. The subject was a married woman, fifty-six years of age, who had borne twelve children, and had always enjoyed good health. She was admitted into the Middlesex Hospital on August 29, 1879, under Dr. Cayley's care, having suffered from epigastric pain, vomiting, and wasting for six months. A swelling in the hepatic region had existed for two months. This was always firm, painful, and tender, and it slowly increased in size while the patient lived. She died from exhaustion on November 21.

CANCER OF THE BREAST WITH SECONDARY CANCER OF THE BRAIN.

Mr. HULKE exhibited the recent specimens of this case. The patient had been transferred to his care for the breast-

lesion from a medical ward, into which she had been first admitted on account of symptoms pointing to tumour of the brain. She lay in a lethargic condition, often complaining of intense headache. There was marked double optic neuritis with retinal hæmorrhage. Bed-sores formed before death. The left breast was the seat of a small scirrhus nodule, which began to ulcerate about a fortnight before death. At the necropsy the left lobe of the cerebellum was found to contain a cancerous mass continuous with a nodule which was adherent to the tentorium; and in the left inferior parietal lobe of the cerebrum there was a smaller cancerous mass. There was also a secondary mass in the liver. She had also a large ovarian cyst. The case was interesting as illustrating the rare condition of secondary infection of the brain from mammary cancer. The speaker had seen such a result only three or four times before in his extended experience of cancer of the breast.

ENCHONDROMA OF ARM.

Mr. H. CRIPPS exhibited this specimen, taken from the arm of a female, twenty-eight years of age, who had been under the care of Mr. T. Smith. The growth had been developing for seven years, and was nodular in shape, exceedingly hard, but not very painful. High up in the axilla there were four or five smaller masses. The main growth was found to have an enclosing capsule, containing several nut-like cartilaginous nodules, of which some were attached to the capsule, but some were quite free and loose, and fell out when the capsule was incised. The axillary masses, at first thought to be enlarged glands, were also found to be separate cartilaginous nodules. The interesting point was the occurrence of these detached nodules. Those found free within the capsule might have grown with the general tumour-mass, becoming subsequently detached; and those in the axilla had perhaps originated by the passage of some cartilage-cells from the main tumour into lymphatics, by which they had been conveyed to the points of arrest where they had developed. The masses were found to show, under the microscope, the structure of hyaline cartilage. These loose nodules were very rarely found. The late Mr. De Morgan had recorded one similar case.

The following specimens were exhibited by card:—

By the PRESIDENT, for Dr. Ruddick, of Montreal—Portrait of Infant with a Pedunculated Occipital Meningocele.

By Dr. W. EWART—Two specimens of Aneurism at the Base of the Heart.

By Dr. N. MOORE—Horse-shoe Kidney.

By Mr. HULKE—1. Cancer of Womb, invading Vagina and Rectum: Colotomy. 2. Cancer of Female Breast, with Secondary Nodule in Liver, but without Glandular Infection.

By Mr. WALSHAM—Myxo-sarcoma of Head of Tibia.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 3.

W. S. PLAYFAIR, M.D., F.R.C.P., President, in the Chair.

MENSTRUAL DECIDUA.

DR. GALABIN showed a microscopic section of a portion of menstrual decidua passed on the first day of menstruation. The patient did not suffer from membranous dysmenorrhœa. The sections showed the gland-tubes cut across, and having their epithelial lining perfect.

HISTOLOGICAL CHARACTERS ASSOCIATED WITH LACERATION OF THE CERVIX.

Dr. GALABIN showed also a section from the anterior lip of the cervix uteri. There was deep bilateral laceration, with ectropia. The posterior lip was affected by early epithelioma; the anterior lip presented the appearance of ordinary granular inflammation or erosion. Both lips had been removed by the galvanic wire. From a careful microscopical examination of the two lips, it seemed that a part at least of the diseased surface of the posterior lip must have been originally covered by squamous epithelium, and that the condition, therefore, was not merely exposure of cervical mucous membrane, but extension of inflammation beyond the original position of the os, with formation of adventitious glands, and development of epithelioma out of this inflammation.

GELATINOUS UMBILICAL CORD.

Dr. CLEVELAND showed a thick gelatinous cord which illustrated the necessity for more than ordinary care in tying. From previous experience of the occurrence of hæmorrhage in such cases, he had taken extra care to ligature it securely; nevertheless, within ten minutes it commenced to bleed severely. In future, he proposed to pass a double ligature through the cord with a needle.

Dr. HEYWOOD SMITH showed an enlarged uterus which had been removed by abdominal section.

REPORT ON MR. CHILLINGWORTH'S SPECIMEN.

Messrs. KNOWSLEY THORNTON and DORAN presented their report upon this. After careful histological examination, they concluded that it was not a simple fibroma, but a mixed sarcoma.

REPORT OF AN EXPERIMENTAL INQUIRY INTO THE METHODS OF TRANSFUSION.

Mr. E. A. SCHÄFER said the first part of the inquiry was to ascertain whether any other fluid, such as milk, could with advantage be substituted for blood in transfusion. Numerous experiments were made on this point, with the co-operation of Mr. G. F. Dowdeswell. It was found that rabbits generally died within twenty-four hours if ordinary milk were injected into their veins, even in small quantities. The blood corpuscles became disorganised, and the blood swarmed with bacteria. Milk which had just been boiled, or which had been drawn direct from the cow's teat into a previously super-heated vessel, was innocuous. Dogs and cats resisted the action of the septic organisms in milk. In animals reduced by bleeding to an almost lifeless condition, the injection of milk into the bloodvessels was sometimes, but not always, followed by a temporary rise in the blood-pressure; but there was never any permanently beneficial effect. Such animals always died. These results are confirmatory of those of Howe and Duprey in America. It was next explained that no fluid lacking hæmoglobin could be expected to be of benefit in cases of acute anæmia. The question next to be determined was whether the blood of any other animal could be used for transfusion in cases of depletion in the human subject. This question is answered in the negative by the results of the microscopical examination of mixtures of human blood with the blood of the lower animals. As Landois and others have clearly shown, sooner or later the red blood-corpuscles of one or both kinds of blood become dissolved. Moreover, the white corpuscles cease their amœboid movements, and are soon killed. Sometimes the solution of the colouring matter of the red corpuscles occurred in a few minutes, sometimes not for some hours. At any rate, the action of the blood or serum of the lower animals is by these experiments proved to be an actual poison to the human blood-corpuscles, and will probably be the same to the living cells of other tissues. Moreover, it was found that dog's blood could not be transfused to any great extent into a cat in place of the animal's own blood, or lamb's blood into a dog, without fatal consequences. The result of these experiments, then, is to prove that in man only human blood can be used with advantage for transfusion. It was next sought to determine the best method in which transfusion can be effected, and especially if it were possible to transfuse arterial blood into an artery, towards the heart. The great advantage which such a method must present is pointed out by Blundell, who in one passage in his "Researches" gives as the reason for recommending such a course that the circulation through the coronary arteries is at once renewed, and the heart thereby strengthened. Numerous experiments were accordingly made upon dogs and cats with the object of testing the result of such a mode of transfusion, and its applicability to the human subject. In these experiments an animal was first depleted of blood until the arterial pressure had sunk almost to zero, and one of its arteries (femoral) was then connected by glass canulas and a simple india-rubber tube filled with carbonate of soda solution, with the artery of another healthy animal. The connexion was in every case followed by a recovery of the depleted animal almost magical in its rapidity and extent. It was found that a flow of one minute's duration was generally enough to restore the patient, and further, that there was little or no danger of the flow of the blood from the donor being excessive, for the pressure in the arterial system of the recipient speedily (owing to the strengthening of the heart and the contraction of the peripheral arteries) became equal to that in the donor.

Out of many experiments of this nature, in only one was the ultimate result unsuccessful, death occurring on the seventh day from secondary hæmorrhage. But in this case the animal was unhealthy (suffering from a skin disease) at the time of the operation. It was pointed out that the ordinary risks of transfusion, such as the introduction of air or clots into the veins, and the supervention of phlebitis, are absent from this operation, and that it has further the advantage that no apparatus is required beyond a simple tube, and that the blood is at once introduced into the situation where it is most needed, viz., the arterial system. The difficulties which are presented by the use of arteries for transfusion were not lost sight of, but it was insisted on that the very general fear of dealing with arteries is in great measure unfounded, especially if a minor artery is employed. In the human subject it is recommended that the dorsal artery of the foot should be employed both to yield the blood and to receive it. The exact method in which the operation is to be performed was described, and the tubes and canulas recommended were exhibited. The details of other experiments on transfusion, and especially of transfusion from vein to vein instead of from artery to artery, then followed. These showed that transfusion from vein to vein through a simple india-rubber tube with glass terminals, previously filled with carbonate of soda solution, was both easy and, except in extreme cases in which the heart had almost ceased to beat, rapidly effectual. It was found that the intervention of an elastic pump, as in Aveling's apparatus, did not accelerate the flow, but sometimes stopped it by sucking in the wall of the vein, and was, moreover, liable to force clots into the patient's vein (the pure black india-rubber of which Roussel's apparatus is made had no influence in preventing the formation of clots—indeed it became speedily occluded). And it was pointed out that there is no object in measuring the amount of blood which flows except by the effect produced on the patient and donor. Finally it was recommended, as the result of these experiments:—1. That fluids other than human blood should never be used for transfusion in cases of hæmorrhage. 2. That transfusion should always, if possible, be effected through a simple flexible tube with glass canulas. 3. That direct centripetal arterial transfusion should, if possible, be employed. 4. That failing any person willing to submit an artery to yield the blood, but ready to allow of the exposure of a vein, direct venous transfusion may be employed. 5. If it is impossible to attempt either arterial or venous direct transfusion, mediate transfusion either of unwhipped or whipped blood collected into a funnel, and allowed to flow through an india-rubber tube and glass canula into a vein, can yet be tried, although with greater risk of the introduction of clots and of the germs of putrefactive bacteria into the vascular system of the patient.

The PRESIDENT considered the paper of great value. He had always used defibrinated blood in transfusion on account of the simplicity of the operation. The blood could be taken from the donor in the dining-room, and defibrinated there, and then taken upstairs and injected into the patient without fear of coagulum forming. He thought the proposals of Professor Schäfer better in theory than they would prove in practice.

Dr. J. BRAXTON HICKS remarked that the paper made no mention as to the use of a mixture of saline solution with blood to prevent coagulation—a plan which he had recommended and employed. The information which he was anxiously awaiting was whether the saline mixture so made affected the main quantity of the blood in such a manner as to decrease its coagulating power when it arrived at the uterus, whereby wholesome coagulation was interfered with. If this could be shown not to occur, then Dr. Hicks held that this method was all that could be desired.

Dr. CHAMPNESS said that he thought some caution was needed in applying the results of these experiments on animals to men. He related the results of some dozen cases of transfusion from the carotid of the lamb directly into a vein of the forearm of the human subject, which he had seen performed at Dresden by Dr. Fielder on patients suffering from phthisis more or less advanced. Though no permanent good seemed to be effected, in none of them was there any serious, still less any fatal result, which was directly opposed to what one would expect from Mr. Schäfer's experiments.

Dr. AVELING was of opinion that immediate arterial transfusion would never become popular, as its difficulties and disadvantages outweighed its one advantage, viz.,

increased arterial pressure. He believed immediate venous transfusion to be the safer and more useful mode of operating, and the objections brought against his apparatus he held to be groundless. He thought that autotransfusion, by raising the legs and hips of the patient, and compressing the legs and abdomen, would often cause sufficient blood to gravitate to the brain and heart, and so preserve life, and thus frequently obviate the necessity for transfusion.

CLINICAL SOCIETY OF LONDON.

FRIDAY, DECEMBER 12.

E. H. GREENHOW, M.D., F.R.S., President, in the Chair.

EXCISION OF THE HIP-JOINT.

MR. CROFT brought forward an analysis of forty-five cases of excision of the hip-joint, and exhibited a large number of the cases on which he had successfully operated. He said that in making this analysis his aim had been to show that excision of the hip-joint may be made a successful operation, and that greater success attends the operation when it is performed before abscess has opened than later. He begged that it might be understood that before operation was resorted to in any case every known reliable treatment suitable to the case had been tried to arrest the progress of the disease. Ten cases, as the tables showed, had urgently needed speedy relief. Thirty-five had been treated in the hospital for more extended periods, varying from one month to a year. No case had been operated upon until threatening abscess had manifested itself. He also begged all present to dismiss from their minds any false impression which had been made on them of the number of deaths which had occurred in consequence of the operation. Forty-five operations had been performed on forty-four patients, one child having had both joints excised. The records of the cases were arranged in tabular form on four large sheets; on these much labour must have been bestowed. Eighteen cases were cured; eleven were under treatment or observation; six patients had died from causes referable directly or indirectly to the operation; one child had died of diphtheria of the air-passages; nine patients had been relieved by operation, but had died, some at long periods, some at shorter periods of time after operation, from causes not attributable to the operation, and from causes from which the children would otherwise have died. The cases cured and the cases dead were arranged in tables, which afforded information on the most important points. Of the eighteen cases cured, Mr. Croft stated that he knew certainly that sixteen were absolutely cured, and sound and well at the present time, and twelve of them were in the room adjoining the meeting-room; and two others were potentially cured, in one of whom the sinus had accidentally reopened just lately, after having been closed for a considerable period, and the other child was cured of her hip disease though she was dying of phthisis. He stated that fourteen of the cases had movable joints, affording flexion and extension, and that nine enjoyed a considerable range of flexion, and could perform adduction and abduction to some extent. Four could stand *alone* firmly and steadily on the leg which had been operated upon. (This fact was especially demonstrated to Messrs. Lister and Mac Cormac after the discussion.) In each patient the limb was straight without any permanent flexion on the pelvis. Each child stood erect without any lordosis of the spine. In many the apparent shortening amounted to three inches and a half. With regard to that state, Mr. Croft directed attention to a very interesting fact in his series of cases, that in measuring the femur on the side operated upon, and comparing it with the normal femur, the difference between the lengths was decidedly less than the distance between the heel and the floor. This he attributed to the preservation of the epiphysis of the great trochanter as a step in the operation, and to the extension being performed sub-periosteally, after Sayre's mode of operating. Mr. Croft had followed Mr. Sayre's mode of excision in almost all his cases. Of the eighteen cases cured, twelve were instances of chronic pan-arthritis, commencing, as he believed, in the synovial membrane, and six were instances of the similar disease commencing in osteitis and terminating in more or less necrosis. Three of the cases were operated upon antiseptically, and two partly anti-

septically. In six abscess had been incised and sinus had persisted, but in only two of the eighteen cured cases were the sinuses chronic in duration. In three perforation of the acetabulum had taken place; and he referred here to the fact that amongst the cases recorded in the list of dead, chronic sinuses had been open in eleven and perforation of the acetabulum had been found in five. Thirteen patients had been under treatment in the hospital for periods varying from two days to three months, four from three to six months, and one for eleven months, before operation was resorted to. For further details Mr. Croft referred his audience to the tables, patients, and the preparations of the morbid parts. Thirty-six specimens were exhibited. One of the patients had been brought up from Portsmouth, another from High Wycombe, and another from Beckenham, for this particular occasion. Concerning those who were dead, Mr. Croft stated that the total number was sixteen out of forty-five operations. This number included four cases in which, with his present experience, he should not think excision to be the best treatment. The deaths were spread over fourteen years. Five deaths occurred from preventable disease, one from diphtheria of the air-passages, three from pyæmia, and one from septicæmia. Six of the total number were attributable, directly or indirectly, to the operation, viz., one from septicæmia, three from pyæmia, one after suppuration in the knee following erysipelas (and he died from shock of amputation of the limb at the hip ten months and more after excision), and one from thrombosis and asthenia sixteen days after excision. The patient who died from pyæmia, in 1878, was not dressed antiseptically, and it was an exceptionally severe case, the lad being the subject of caries of the lumbar and sacral vertebræ and of psoas abscess. The nine other cases (deaths not attributable to operation) all lived for some length of time after operation. As there was still more or less disease at the seat of operation at the time of death he had put these cases in the list of dead, although death was in no way attributable to operation. The periods of survival were stated, and appeared in the tables; they varied in extent from two months and a half (patient dying from rapid general tuberculosis) to four years. The causes of death in the nine cases were stated, viz., one from tubercular meningitis without waxy changes in liver, etc.; seven from tubercular disease with waxy changes of liver and kidneys, etc.; one from tubercular disease of lungs, and of other bones than pelvic. These cases might have been returned as relieved by operation, but in the interests of science Mr. Croft thought it best to trace their progress, and report them as he had done. It seemed, he said, a large proportion of failures to cures, but he ventured to think that with improved diagnosis, by operating in good time, and by improved methods of operating and after-treatment, the proportion of failures will be considerably diminished, and the cures increased in number. The number of failures after operation, or deaths after operation, should be compared with the number of deaths amongst those who are not subjected to operation. Mr. Croft again protested against the total number recorded as dead being mistaken for the total number of deaths in consequence of operation, or from the sequelæ of operation. The nine patients who died from tubercular disease and waxy disease of liver, etc., would certainly have died from those diseases if the patients had not been operated upon at all. Three of the six cases in which death occurred in consequence directly or indirectly of the operation, would be, according to Mr. Croft's present views, unfit cases for operation. The disease in each case had been in progress for more than three years. In another case the operation was performed with the object of relieving the patient of suffering, and it fulfilled its object. After some remarks on the little value of statistics which do not supply information with regard to the state of the patient, character of the disease, stage of the disease, and its duration, Mr. Croft proceeded to state that of the eleven cases still under treatment or observation, three were in hospital and eight had returned to their own homes after having been sent to Margate or elsewhere for change. Reverting to the subject of the advantages attending excision of the joint before sinuses have formed and become chronic, the author stated that of the cases of cure, eighteen in number, six only had had sinuses, two of these chronic, and four recent; whilst of those included in the dead list eleven were the subjects of open chronic sinus or sinuses before operation. Amongst the cured and dead cases there

are three and five cases of "perforation" respectively. He thought it a fair inference that chronic sinuses and the occurrence of perforations of the acetabulum do severally or together influence the progress of the cases for the worse. Mr. Croft argued from this in favour of early antiseptic operation before abscess had burst and sinus formed. Here Mr. Croft said that he felt anxious not to take up too much of the time of the meeting that evening by his own paper, yet there were several points he felt called upon to refer to:—1st. The advantages which he claimed for early or relatively early operation. 2nd. Formulæ with respect to indications for operative interference. 3rd. The mode of operating with reference to the periosteum, the leaving behind the epiphysis of the great trochanter, the line of section of the femur, removing parts freely, the line of incision through the soft parts, and the employment of antiseptics. 4th. The mode of after-treatment. 5th. The causes of failures in excision of this joint. 6th. The comparison of limbs after excision with limbs of those who get well without operation. 7th. The time taken to get well by those not operated on compared with the time taken to get well by those successfully operated on. On this occasion he would only present a summary of what he had to say on three of these topics, viz., the 1st, the 2nd, and the 5th. First, the formulæ with reference to indications for operative interference. (a) When there is a collection of fluid in and about the joint in a case of well-marked hip disease in which all the physical signs are present, and especially starting pains, antiseptic incision should be made, as if the surgeon intended to excise, and he should only desist on finding the articular structures in a condition from which they could rapidly recover and yield a movable joint. (b) When pus associated with pan-arthritis (strumous disease of joint) is known to be present, even if the surgeon is uncertain with regard to the state of the bones, he should excise. (c) If the surgeon is certain that necrosis has occurred he should excise. Causes of failure in excision of this joint:—(a) Operating too late in the progress of the case; not removing enough (1) in the acetabular region, (2) of the femoral portion, (3) of the synovial membrane and capsule. (b) Not providing free exit for discharges. (c) Not operating antiseptically. Mr. Croft asked here, Why are not hip excisions as successful as excisions at the knee-joint? The reply he gave was, that in excising the acetabular portion of the joint the surgeon did not remove the disease so thoroughly as it might be removed at the femoral portion of the knee-joint. Lastly, he claimed for what he had termed early, or relatively early, operation—1. That in cases of *tubercular* disease early complete excision affords the best prospect of cure. 2. Immediate relief from pain of tension and spasmodic starting pains. 3. That it is made before muscles are much atrophied or stiffened by inflammation products. 4. That it shortens the duration of suffering and illness. 5. That it enables the child to go about earlier than it could if left without interventive treatment. 6. That it enables the surgeon to procure a painless movable joint at the hips. 7. That the shortening is only a trifle more than it is in the most favourable cases of ankylosis after destructive strumous disease of the joint.

After the meeting broke up, Mr. Lister examined some of the patients, who had remained to that late hour, viz., a quarter to eleven o'clock; and Mr. Croft satisfied Mr. Lister and Mr. Mac Cormac that four could stand steadily and firmly on the leg which had been operated upon. These patients were Charles B., now fifteen years of age, who was operated on eight years ago; Albert C., now ten years of age, who was operated upon nearly seven years ago; Margaret MacC., now sixteen years of age, who was operated upon nearly four years ago; and Hector W., now eleven years of age, who was operated upon nearly two years ago. The parts removed from thirty-six of the forty-five joints were displayed in bottles placed on the tables, but Mr. Croft assumed that the pathological question would not be entered upon by the members of this Society. He then left the matter in the hands of the meeting.

Before opening the discussion, the President ruled that Mr. Parker should read his paper also.

ON A NEW METHOD OF EXCISING THE HIP-JOINT, WITH REMARKS ON THE PATHOLOGY AND TREATMENT OF HIP-DISEASE.

MR. R. W. PARKER said it was in consequence of some remarks by Mr. Hulke and Mr. Bryant, and in accordance

with a suggestion made by the President at the last meeting of the Society, that these notes of epiphyseal necrosis were brought forward. For want of time, however, only one case could be read. This case was selected because it illustrated, first, a new method of operating; second, epiphyseal necrosis; and third, the influence which the social condition of the patient must always exercise on the treatment to be recommended. *Case 1.*—M. Y., aged eight, was admitted into the East London Hospital for Children in March, 1879. The following notes were made by Mr. R. E. R. Morse:—For two or three weeks she has complained of acute pain in the right knee and leg; she was feverish, and without appetite; was kept in bed. On admission, the upper part of the thigh and the region of the hip were found much swollen and very painful. There was no appreciable fluctuation; the soft parts in the groin were slightly cedematous; there were no enlargements of glands. Passive movements caused great pain. An extension apparatus was ordered. At the end of a fortnight she was examined under chloroform, seeing that her condition was worse than on admission. Grating was not discovered in the joint; neither could fluctuation be made out—the femur moved freely in the acetabulum. The temperature was high and variable. A low typhoid condition supervened, and for a time she was very ill. At the end of another month she had materially improved in her health, but her local trouble, on the other hand, continued to progress. An abscess now formed in the upper part of the thigh, which had to be opened. Eleven weeks after her admission she was again chloroformed, in order the better to examine the joint. Grating was now found, and there was a free discharge of pus from the wound. Excision was then decided upon. *Operation:* An incision was made from the anterior superior spine of the ilium downwards along the anterior margin of the great trochanter, cutting between the sartorius and rectus muscles on the inner side, and the tensor fasciæ and the borders of the two lesser glutei on the outer side. This exposed the anterior surface of the neck of the femur, as the capsule was found to have been destroyed by the disease. The diseased bone was sawn off *in situ* with a key-hole saw. After removing the bone with sequester forceps, and while examining into the condition of the acetabulum, a portion of the epiphysis was found detached and necrosed. The child made a slow recovery, and was sent into the country in about two months after the operation. She can now get about, but there are still some open sinuses. She is comparatively fat and well. *Case 2.*—J. A., aged six, was admitted with an abscess in the upper and outer part of the thigh; it had been noticed three weeks. Pus was evacuated on at least two occasions, but the boy did not improve. Three months after his admission grating was detected in the joint, which was excised. The head of the femur was found detached and necrosed. He is now well, and walking about. *Case 3.*—S. B., aged fourteen, admitted with a large abscess involving the upper third of the thigh. The boy rapidly lost flesh; the hip-joint became affected secondarily; caries of the femur set in, and destroyed its upper third. Amputation at the hip was finally decided on and carried out. The head of the bone was found necrosed in the acetabulum. The boy died. *Case 4.*—E. E., aged three, had a fall three weeks before her admission. A week later the thigh began to swell, and the hip-joint to be painful. Three months later, after extension and rest had been tried, there was grating in the joint with abscess. Excision was performed; the remains of the head were found detached and carious in the acetabulum. She has made a good recovery, though she cannot yet walk. *Case 5.*—T. A., aged seven. Began to limp when three years old, and has suffered "on and off" ever since. He was taken in and kept in the recumbent position, and an extension apparatus applied. But an abscess formed; and within the next six weeks there was palpable grating in the joint. Excision was performed, and the head of the bone was found detached. It was not necrosed. *General Remarks: Methods of Operating.*—This new method of exposing the joint and removing the carious bone was proposed because it avoided the necessity of cutting across any muscular fibres. The posterior incision, on the contrary, must separate the glutei and many other muscles from the upper end of the femur, besides interfering with the vascular anastomoses. He thought it desirable, too, to saw off the bone *in situ*, rather than forcibly push up the bone through the wound; for in doing so the periosteum was

frequently detached from the shaft of the femur for some distance below the disease. As regards the usual incision along the *posterior* border of the trochanter, he could only say that several very large muscles had to be divided near their insertions, and that considerable interference with the vascular anastomoses of the part must also result. *Epiphyseal Necrosis*.—He had done eight excisions in all, and had found this epiphyseal necrosis in five cases. It was not until Mr. Hulke pointed out the fact that he (Mr. Parker) became aware of the rarity of this affection, for, agreeing fully as he did with the view that caries of the neck was the most frequent pathological condition in hip disease, he should rather expect to find necrosis of the epiphysis, owing to the impaired nutrition, and the interference with the physical condition of the surface to which it was attached. On inquiry he found that many cases had occurred, and he believed that, if looked for, it would be more frequently present than absent. The points in his cases, which were common to all, or the majority, were—progressive disease in spite of careful nursing and treatment, comparatively rapid onset and progress, early formation of abscess, the young age of the patients. *The Social Condition of the Patients*.—It was not necessary to say what an important influence this would have on the plan of treatment which could be recommended in a given case; for clearly the child of a poor labouring man could not be adequately treated at home. The existing hospitals, on the other hand, were not able to carry out an expectant plan of treatment, and the question of operative inference then was the only alternative. *Results of the Disuse*.—Most unsatisfactory without adequate treatment in a hospital. Even under favourable circumstances it was far from encouraging, as the above related cases showed. Seeing how many cases which recovered were found to have the femur flexed on the pelvis, was there not possibly a clinical indication therein, and were we giving to a diseased joint that absolute physiological rest which was essential for a cure, in forcibly keeping up extension during lengthened periods? While he was willing to admit that the results of operation at the present time were not entirely satisfactory, he would ask, was not this due to our waiting until the strength was gone, until the limb was wasted to a mere outline, until the disease had attacked surrounding structures, and until, in many cases, secondary disease in distant organs had been induced by the long-continued suppuration such as rendered a "cure" all but a physical impossibility? The epiphyseal sequestra were exhibited.

Mr. HOLMES felt that Mr. Croft's exhaustive report left him little to say. When younger, he had performed this operation many times, but not so often as Mr. Croft. The results of the operation must, he said, depend entirely on the selection of the cases, since the indications in favour of or against operation vary materially with the circumstances by which the patient is surrounded. In hospital cases an unfavourable result must be experienced because of the bad hygienic surroundings through the patient's existence; but in private practice, as a consequence of the greater care and better health-precautions, greatly improved results followed operation. *In limine*, hospital treatment so continually fails of giving any permanent benefit in these cases that the surgeon ultimately resorts to the knife in sheer despair. Such, however, he could not regard as the correct course. He thought it to be improper treatment to make incision even antiseptically into an abscess in the joint. He had been accustomed once to excise a joint if he proved to himself the existence of an abscess and of crepitation, but had given up the practice. He felt convinced that a patient whose health was not irredeemably shattered, and with only a superficial caries of bone, might recover without operative interference. The natural cure resulting is far more perfect than any that will succeed to surgical efforts. There is less shortening in such cases, the ankylosis is more perfect, and the general result far more favourable than that brought about artificially. He had never seen a patient thus operated on able to stand erect afterwards; dissection proved that the union following excision is chiefly ligamentous. He therefore urged that, when possible, the cure should be by natural means. He did not, however, argue against operation *in toto*, for in some cases he admitted it is essential to improvement, but all the more, therefore, indications ought to guide the efforts of the surgeon. A recent case of extensive caries, which he had seen

with Mr. Pick, was one demanding operation undoubtedly; and similarly, when sequestra existed in the joint, they could be removed only after the operation for excision. Preservation of the joint under such circumstances is plainly impossible; excision, therefore, is the *only* method for relieving them. But excision is not indicated by abscess and simple caries. Cure is possible in such cases by means of opening the abscess, freely washing the wound, and subsequently submitting the joint to regular extension at not too distant intervals. He urged that the surgeon must not be influenced by a death-rate of whatever proportion, but he guided in each case on its own merits. The number of fatalities will always be subject to wide variation; the period of the disease and the patient's condition much affect the result. He was certain that excision of the hip-joint will never be so successful an operation as the analogous one on the knee, for the reason that it is not possible to remove bone in extent sufficient to eradicate the whole mass of disease. Of antiseptic treatment in these cases he had no experience. He believed the average outcome of operations would be always about the same—one-third would die, one-third be cured, one-third doubtful.

Mr. HULKE thought Mr. Croft's analysis a very valuable contribution to surgical literature, but it would require careful and attentive study. His own experience of these operations was, he said, limited. Until he heard Mr. Croft's explanation, he had been dismayed to find the number of deaths after operation so large, but was glad to know that all were not due to the operation itself. Six deaths, however, out of a total of forty-five cases, gave a mortality of about one in seven, and this was considerable. He had recently gathered statistics of hospital practice, and out of 313 cases of joint disease he found the hip-joint involved in eighty-six, but of these only six could be truly described as morbus coxæ. Excision was performed in sixteen out of these, and in only one did death ensue immediately from operation. This, he believed, would be a fair average if cases were properly selected. He agreed with Mr. Holmes entirely, and his examination of the cases then exhibited induced him to think that the operation had possibly been undertaken where it was not always necessary. From one boy exhibited he elicited that the disease had pronounced itself only a month before excision was resorted to, and when treatment had been undergone for no more than one week. He personally trusted mainly to the indications afforded by a patient's general condition: if the health was fairly good—that is, if ground was not being lost—he did not feel called on to excise, but only when there was obvious deterioration. He approved free incision as an aid to copious drainage, and always treated the wound freely with chloride of zinc. He did not resort to Listerism, but, apart from it, avoided chance of putrefactive changes as far as possible, thereby obtaining good results. Mr. Hulke called attention to a particular form of splint (exhibited), which he declared to be more serviceable than the Thomas's splint mentioned by Mr. Croft.

Professor LISTER said he had been pleased to hear Mr. Hulke's testimony in favour of chloride of zinc, having used it freely himself in such cases. It prevented putrefaction in presence of septic elements, and was invaluable where sinuses giving exit to putrid material existed. He had seen many lives saved through it. Employed together with free drainage in excision, risk might be practically avoided. He had met with no case indicating amputation rather than excision. Since witnessing Sayre's method at Philadelphia, he had always followed it. It limited hæmorrhage, permitted free access to the joint and acetabulum, was sub-periosteal, and thus presented many important advantages for which its employment was to be advocated. He was of opinion that if a joint *must* be opened, it had better be done so freely than in the limited fashion Mr. Parker had suggested. In the last case he had operated on, a young lady had been for a long time afflicted with hip disease; many sinuses existed, and a profuse discharge. He had excised after Sayre's method, and perfect ankylosis ensued. He found a mass of exfoliation and diseased bone, but the case was doing well at this time. Here, too, he had made copious use of zinc chloride. This case was a proof that the disease is met with, even though rarely, in private practice. Mr. Holmes had not referred to the treatment of abscesses antiseptically in which openings appeared. He felt convinced himself that such an abscess *should* be opened with the adoption of every possible precaution against

putrefaction and evils attendant thereon. He was disappointed to hear only "free washing" spoken of in the present time, and was quite certain that it would be productive of no results comparable to those obtained by antiseptic methods. The treatment of cases in which no shortening of the limb has taken place is a matter of extreme importance. In three cases of the kind in King's College Hospital the abscesses (in adults) were of rheumatic origin. They had been opened antiseptically; no fever supervened, no shortening took place, and good movable joints remained. Cases of this nature were rightly productive of much satisfaction. He had seen many strumous patients in whom good results had followed opening of the abscesses, and he was firmly convinced that the operation (incision), where practicable, resulted in a more permanent recovery than can be obtained by means of excision, not excepting cases in which exfoliation has occurred. In one instance he had found a considerable quantity of half-necrosed bone present, and judged excision would be necessary. Determining, however, to wait awhile before operating, and submitting the joint meantime to antiseptic treatment, almost perfect restoration took place, only a small sinus being left. A house-surgeon, however, thinking recovery secured, omitted, on his own responsibility, the antiseptic precautions at this stage; suppuration quickly ensued, and eventually amputation was necessary. Antiseptic treatment, continued Mr. Lister, should be invariably followed where an abscess with unbroken surface presents. By this method better results may be anticipated than through excision.

Mr. MORRANT BAKER said he had performed twenty-four operations for hip-joint excision; two patients died from the immediate effects, and one some considerable time after. He did not think a greater mortality than this ought to follow the operation. The time it occupied need not be excessive—four or five, or at most seven or eight, minutes sufficing; and by using a fine saw, with ordinary care, there ought to be no greater danger incurred by the patient than that attending simple incision into the joint. He was an advocate of free drainage; when the trochanter is left he had never noticed any want of firmness in the joint. A perfect, result, however, could not be anticipated, the conditions under which the disease is contracted standing in the way of such a desirable consummation. He felt that the operation of excision would give the patient a better chance of a comfortable existence, but the indications should be the sole guide to the operation. Rules for guidance cannot be laid down with any certainty; individual judgment must determine the merits of each case. Excision is an unwise proceeding if much ankylosis has taken place. The presence of loose sequestra must always be a strong argument in favour of excision. He had found such dead bone in many of his own cases. He exhibited a case in which he discovered the head of the bone (femur) lying loose in the acetabulum. The influence of amyloid disease, continued Mr. Baker, is not sufficiently considered in its reference to this disease. Even when much advanced, it did not necessarily prevent ultimate recovery, a case in illustration having been under his notice in St. Bartholomew's Hospital. He urged, however, that generalisations from a single case were not admissible. He was convinced that good results would follow excision in a vast number of cases.

Mr. J. WOOD had performed the operation for excision very often, and frequently where advanced amyloid disease existed. He thought cure would follow proper rest and extension in many cases; but occasionally excision was indicated from the first. In his own practice he interfered as little as possible with the natural position of the muscles, and could point to very successful results, even where he had removed a considerable portion of the pelvis. One case in which he omitted full antiseptic treatment, but employed zinc chloride, carbolic acid lotion, and full drainage, did very well. He thought the conduct of the surgeon should be guided by a consideration of the symptoms *en masse*, but when dead bone is felt with the probe, then operation is imperatively called for. He deprecated the exposure of the bone, but advocated its removal sub-periosteally, and through as small an incision as possible, the operation being thus reduced to little more than that required to open an abscess. He was inclined to operate in those cases only in which the efforts of nature to effect a cure by ankylosis had manifestly failed of success.

Mr. MAC CORMAC was of opinion that the mortality in Mr.

Croft's cases was not excessive, consideration being had to the unfavourable nature of the average hospital patients. He had not followed out the histories of his own cases so completely as Mr. Croft had done his. He thought sufficient stress had not been laid, during discussion, on the character of disease indicating necessity for operation. In a large number of cases the white swelling of the hip-joint is connected with the existence of miliary tubercle in the bone itself, and Professor Koenig, of Göttingen, had demonstrated this in sixty-nine out of seventy-one cases. This must be a very urgent reason for early operation, and he believed that a good functional limb could be expected only after early interference with the course of the disease.

Mr. HOWSE considered it surprising that so many favourable results did follow late operations. He advocated the removal of the trochanter major, but condemned the closure of the wound by sutures. The trochanter, if left, would act as a shield before the acetabulum, and thus retain any carious bone, to the patient's injury. He objected also to a too free removal of acetabulum and surrounding pelvis, as likely to induce collection of pus between the pelvic fascia and wall.

The PRESIDENT proposed that a committee, consisting of Messrs. Hulke, Holmes, Bryant, Croft, and Howard Marsh, be appointed to report on the whole subject under discussion.

The motion having been carried,

Mr. CROFT replied to the criticisms passed on his paper. He had feared, he said, that he would be severely handled, but could not think his conclusions materially shaken. Mr. Holmes' statement concerning the unsatisfactory limb left after operation did not convey any forcible objection to operative interference; while adversely criticising the formulæ he had given in his paper, Mr. Holmes had suggested no better or reliable means of deciding the necessity of making exploratory incisions; and regarding the early operation, Mr. Mac Cormac had added his testimony in favour of it, by dilating on the frequency of tubercular infection. No one, said Mr. Croft, who would examine his preparations, could accuse him of performing any single operation without full reason; and he did not think any improvement on his method of proceeding had been suggested. The patient referred to by Mr. Hulke, as having been operated on a month after the onset of the symptoms of disease, was suffering from acute necrosis, and in the extremest agony, the operation being imperative in his case. He had at different times used two incisions—longitudinal and Y-shaped; had followed Sayre's mode, and always preserved the great trochanter without severing the attached muscles. In many cases he could show that the process had been re-united. He did not find it cause any obstruction, as suggested by Mr. Howse, and that gentleman was also mistaken in supposing that he (Mr. Croft) intended to imply that excision must invariably follow distension and grating in the joint. Where, however, a collection of pus existed, and advanced disorganisation, then, even in the absence of any sinus, an incision should be made, to permit of accurate examination of the part.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN NOVEMBER.—The following are the returns (by Dr. Meymott Tidy) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, etc.	Nitrogen: As Nitrates, etc.	Ammonia.		Hardness. (Clarke's Scale).	
				Saline.	Organic.	Before Boiling.	After Boiling.
Thames Water Companies.	Grs.	Grs.	Grs.	Grs.	Grs.	Degs.	Degs.
Grand Junction...	21.10	0.050	0.180	0.000	0.009	14.3	3.7
West Middlesex...	21.50	0.043	0.150	0.000	0.003	14.3	4.2
Southwark and Vauxhall ...	22.10	0.048	0.132	0.000	0.008	14.8	3.7
Chelsea ...	21.00	0.055	0.144	0.000	0.008	14.3	3.7
Lambeth ...	21.50	0.062	0.144	0.000	0.009	13.2	3.3
Other Companies.							
Kent ...	28.60	0.039	0.450	0.000	0.002	18.8	7.5
New River ...	20.60	0.014	0.138	0.000	0.007	14.8	3.3
East London	21.50	0.031	0.135	0.000	0.007	15.4	4.2

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours. The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid, namely, in that of the Chelsea Company.

OBITUARY.

J. SOELBERG WELLS, M.D. EDIN., F.R.C.S. ENG.

WE greatly regret that we have to add to the sad, long list of the men lost this year from the foremost ranks of the profession in London one name more, that of the well-known and able ophthalmic surgeon, Soelberg Wells, who died at Cannes on the 2nd instant, at the age of, we believe, only forty-three. Being partly of German extraction, Mr. Wells owed probably some of his general, and certainly very much of his professional, education to German teaching. His first professional qualification was obtained from the University of Edinburgh, where he took the degree of M.D. in 1856. Being possessed of independent means, he was in no hurry to settle down in practice, and after graduating, spent four years in study at the medical schools of Paris, Berlin, and Vienna, and having selected diseases of the eye as his special field of practice, studied the science and art of ophthalmology, under Graefe, Donders, and Helmholtz, but chiefly under Graefe, becoming one of his much esteemed assistants. In 1860 Mr. Wells returned to England, took the membership of the Royal College of Surgeons, and was appointed clinical assistant to Mr. Bowman at the Royal Ophthalmic Hospital, Moorfields. In 1867 he was appointed one of the Assistant-Surgeons, and in 1873 one of the Surgeons to that Hospital. In 1872 he had become a Fellow of the Royal College of Surgeons. Possessed of excellent abilities, and highly educated and trained, it was not long before Mr. Wells came to the front, and won for himself a prominent position. Besides his appointment at the Moorfields Hospital, he was for a time Ophthalmic Surgeon and Lecturer on Ophthalmological Surgery at the Middlesex Hospital; and later, and at the time of his death, Professor of Ophthalmology in King's College, and Ophthalmic Surgeon to King's College Hospital. His great work, "A Treatise on Diseases of the Eye and their Treatment," has reached a third, and his book on "Long, Short, and Weak Sight, and their Treatment by the Scientific Use of Spectacles," a fourth edition; they are highly valuable and trustworthy works. He contributed some "Lectures on Cataract" to our own pages, and numerous papers to other journals, and to the *Ophthalmic Hospital Reports*.

Tall, and powerfully built, with excellent health and spirits, accomplished, courteous, genial, kind-hearted, and a leal and most pleasant comrade and colleague, Mr. Wells seemed to have a long and prosperous career before him. But between three and four years ago his health and strength rather suddenly gave way; and though he now and then recovered apparently for a time, he really gradually and steadily lost ground, and was ordered out to Cannes in October this year, in the hope that the warmer climate of that place might benefit him. His early death will long be deeply regretted by numerous friends and patients.

THOMAS HUNT, F.R.C.S. ENG.

AMONG the casualties from deaths during the present season we must not omit to notice that of Mr. Hunt, who expired on November 26 last. Mr. Hunt was familiarly known in London practice in connexion with diseases of the skin, but he retired from the exercise of his profession in the year 1872, and died at Herne Bay at the advanced age of eighty-one. During the space of twenty-five years or thereabouts Mr. Hunt had pursued a metropolitan career, and enjoyed a fair amount of success and reputation. His name is well known in connexion with certain little treatises on skin complaints which were highly popular. He relied very confidently, and almost with implicit faith, on the efficacy of arsenic in the treatment of these affections, and supported constitutional as opposed to local means in the management of such cases. Parasitical disease he wholly attributed to dirt and dyscrasia. In the line of treatment he adopted, Mr. Hunt met with a certain measure of success; and his writings may still be consulted with some profit.

Thomas Hunt was born in Watford, Herts, and had his education chiefly at a private school near Northampton, where he developed a strong taste for botany. He studied in the Borough at St. Thomas's, and began practice early at Clapton, in Kent; but removed soon to Herne Bay, where he continued in general practice for some twenty years. In

1849 he came to London, and in the year 1851 he established the Western Dispensary for Diseases of the Skin. The first edition of his best-known work, "Guide to the Treatment of the Diseases of the Skin," was published a little before his removal to London; and it has passed through nine subsequent editions. Mr. Hunt had a strong literary turn, and for many years contributed variously to the Press. Many of his contributions were strictly medical; some of them had the character of popular medicine; while others again referred to religious, moral subjects, and those of general interest to the community. We may notice among these a Life of Howard the Philanthropist (published by direction of the Religious Tract Society), as well as the biographies of other eminent persons, the product of his pen. He was a man of independent thought and much intellectual ability. Twice married, he has left children by his first wife, but only one son—an artist of well-recognised talent.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, December 8, 9, 10, and 11, the following were the successful candidates:—

For the licence to practise Medicine—

Barney, Richard Winter.	Henn, Edmund Poole Howell.
Barry, Edward Frederick Sheehy.	Jackson, Thomas.
Berry, Edmund.	Keelan, Michael.
Harding, James Joseph.	MacDonogh, Eliza Foster.
Harris, Hugh.	O'Reilly, Francis John.
Hartt, Charles Henry.	Young, William Robert Minchin.

For the licence to practise Midwifery—

Barney, Richard Winter.	Henn, Edmund Poole Howell.
Barry, Edward Frederick Sheehy.	Jackson, Thomas.
Berry, Edmund.	Keelan, Michael.
Harding, James Joseph.	MacDonogh, Eliza Foster.
Hartt, Charles Henry.	O'Reilly, Francis John.

Up to and including December 12, 1879, the following Licentiates in Medicine of the College have been admitted to Membership in accordance with the provisions of the Supplemental Charter:—

Ashe, Isaac, Dundrum, co. Dublin.	Murdoch, Sidney, Dublin.
Browne, H. P., Delgany, co. Wicklow.	Norman, Conolly, Monaghan.
Chapman, John H., Dublin.	Oxley, Martin Gay Black, Liverpool.
Cormack, John Claude, Liverpool.	Partridge, Thomas, Stroud.
Cox, Henry T., Portland.	Patton, Alex., Finglas, co. Dublin.
Craig, Richard M., A.M.D., Cyprus.	Paul, Ernest Watson, Bridgwater.
Crespi, Alfred, Lundy Island.	Peele, Edward, Dublin.
Dick, James N., R.N., London.	Porter, Frank Thorpe, Dublin.
Eames, Wm. James, Devonport.	Ross, Daniel McClure, Monaghan.
Foster, Balthazar W., Birmingham.	Scott, R. E., A.M.D., Southampton.
Fuller, Joseph, Bristol.	Scott, William, Aughnacloy.
Hatchell, Joseph H., Maryborough.	Styrup, Jukes de, Shrewsbury.
Heard, R. L., Bray, co. Wicklow.	Thomas, William, Sheffield.
Johnston, Andrew C., Aberlady, N.B.	Thompson, James, Leamington.
Jones, John Thomas, London.	Walsh, John, Blackburn.
Keays, William, A.M.D., Cyprus.	Warren, Frederick Wm., Dublin.
Kidd, Abraham, Ballymena.	Williams, Thos., R.N., Dartmouth.
McVeagh, John Francis, Dublin.	Woodward, G. P. M., London, S.W.
Madden, Thomas More, Dublin.	Worswick, Fred. H., Manchester.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 11:—

Dunlop, Joseph Samuel, Coleraine.
Goldney, Arthur Charles Nelson, Shepherd's Bush-road.
Lukis, Charles Pardey, Southampton.
Wright, Herbert Elliston, Edwardston, Suffolk.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Paine, George Reuben Robins, St. Mary's Hospital.
Steer, William, St. Mary's Hospital.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

BERRY, A., M.B., C.M.—House-Surgeon to the Royal London Ophthalmic Hospital.
LONDON, A. AUSTIN, M.B. Lond.—House-Surgeon to the Bristol Royal Infirmary.
MIDDLEMIST, R. P., M.R.C.S., L.R.C.P. Lond.—Honorary Surgeon to the Royal Masonic Benevolent Institution for Aged Freemasons and Widows of Freemasons.
RUGG, GEORGE PHILIP, L.R.C.P. Lond., M.R.C.S.—Medical Officer to the British Home for Incurables, Clapham-road.

NAVAL, MILITARY, &c., APPOINTMENTS.

ADMIRALTY.—Richard Denton Mason, C.B., retired Inspector-General of Hospitals and Fleets, to be Honorary Surgeon to her Majesty, from December 11. Peter Comrie, L.R.C.S., has been placed on the retired list of his rank from December 11.

BIRTHS.

CHAMPNEYS.—On December 11, at High-street, Woking Station, Woking, Surrey, the wife of Charles Thornton Champneys, L.R.C.S., of a son.
JONES.—On December 8, at 19, Chapel-street, Belgrave-square, the wife of T. Ridge Jones, M.D., of a son.
LAMB.—On December 11, at 46, Kensington-park-gardens, W., the wife of W. H. Lamb, M.B., of a son.
MYERS.—On December 15, at Shorncliffe Camp, the wife of Arthur B. R. Myers, M.R.C.S., Coldstream Guards, of a daughter.
TURNBULL.—On December 8, at Kelso, N.B., the wife of G. H. Turnbull, M.D., of a son.
WILMOT.—On December 15, at Petworth, the wife of R. Eardley Wilmot M.B., of a son.

MARRIAGES.

APTHORP-WALSH.—On December 12, at Enniskillen, Frederick East Apthorp, Esq., Captain 108th Regt., to Eva Mary, daughter of R. P. Walsh, L.K.Q.C.P., of Enniskillen.
EDWARDS-COX.—On October 11, Robert Vertue Edwards, Esq., late of Wood Hall, Sutton, Suffolk, to Zipporah, third daughter of George Cox, M.D., of Summer Hill, Wollongong, Australia.
FRANCIS-FOWLE.—On December 10, at Hanover-square, George Philip Francis, M.R.C.S., of Bourton, Dorsetshire, to Catherine Florence, second daughter of John Fowle, Esq., of South Kensington.
HOOD, WILLIAM, CHAMBERLAIN, M.D., at Berners-street Hotel, on December 16, aged 89.
HUNT-MILLER.—On December 10, at Mildmay-park, N., the Rev. J. John Hunt, Incumbent of Smithill's Chapel, Bolton, Lancashire, to Elizabeth Jessie, second daughter of C. Montague Miller, M.D., of Claremont Villa, Stoke Newington-road.
LITTLETON-MAYNARD.—On December 11, at Piccadilly, Nicholas John Littleton, B.A., barrister-at-law, Middle Temple, son of Nicholas Littleton, M.R.C.S., R.N., to Fanny Eliza, eldest daughter of Frederick Maynard, Esq., of Upper Mitcham, Surrey.
PLAXTON-ROBY.—On December 13, at Colombo, Ceylon, Joseph William Plaxton, M.R.C.S., to Edith Annie, youngest daughter of the late John Henry Roby, Esq., solicitor, of London.

DEATHS.

LONGSTAFF, MARIA, wife of Geo. Dixon Longstaff, M.D., at Butterknowle, Wandsworth, Surrey, on December 15, aged 68.
MACLURE, DUNCAN MACLACHLAN, at 34, Harley-street, Cavendish-square, W., on December 13.
MILLER, THOMAS CORNE, M.D. (late R.N.), at Wrentham, on November 25.
MORRIS, TREVOR, M.D., at Combe Down, Bath, on December 11, aged 84.
NOTT, WILLIAM FRANCIS, M.R.C.S., at Kennington-park, Surrey, on December 14, aged 77.
TASKER, RICHARD THOMAS, M.R.C.S., at Melbourne, Derby, on December 8, aged 61.
THOM, HENRY, M.D., F.R.C.S.E., A.M.D., at Victoria Hotel, Lahore, on November 11, aged 48.
TRAVERS-COX, WILLIAM, M.D., at Villa Travers, Nice, on December 14, aged 72.
TURBELL, BELL ELEANOR, wife of S. Turrell, M.D., of Windsor, on December 12, aged 49.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BROMPTON PROVIDENT DISPENSARY, 3, QUEEN-STREET, BROMPTON, S.W.—Medical Officer. Candidates must possess a medical and surgical qualification. Applications, with testimonials, to be sent to the Secretary on or before January 3, 1880.

HAMPSTEAD PROVIDENT DISPENSARY.—Medical Officer. Candidates must be duly qualified, and resident in the parish of Hampstead. Applications, with testimonials, to be sent to the Secretary, Mr. S. D. Roff, 57, Heath-street, Hampstead, N.W., on or before December 27.

LIVERPOOL DISPENSARIES.—Assistant Resident House-Surgeon. Candidates must be unmarried and duly qualified. Applications, with testimonials and registration certificates, to be sent to the Secretary, Leith Offices, 34, Moorfields, Liverpool, on or before January 29, 1880.

SUNDERLAND AND BISHOPWEARMOUTH INFIRMARY.—Physician. Candidates must possess the degree of Doctor in Medicine of some University of the United Kingdom, and be registered accordingly, and are not to undertake to practise in surgery or midwifery. Applications, with testimonials, to be sent to the Secretary, John Kiits, Esq., on or before January 23, 1880.

UNIVERSITY COLLEGE, LONDON.—Professor of Medical Jurisprudence. Applications to be sent to Talfourd Ely, M.A., Secretary, on or before January 7 prox., at the office of the College, where further information can be obtained.

UNION AND PAROCHIAL MEDICAL SERVICE.

*. The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Alderbury Union.—Mr. A. J. Nunn has resigned the First District: area 10,840; population 1865; salary £48 per annum.
Brighton Parish.—The Central District is vacant: area 250; population 20,000; salary £125 per annum.

Carnarvon Union.—The First Carnarvon District is vacant: salary £40 per annum.

Hardingstone Union.—Mr. William Percival has resigned the Hardingstone District: area 12,422; population 4672; salary £45 per annum.

Henley Union.—Mr. Wm. E. Young has resigned the Caversham District: area 7876; population 3210; salary £100 per annum.

Holborn Union.—Mr. J. R. Gibson has resigned the Second District: salary £110 per annum.

Knighton Union.—Mr. William Hanson has resigned the Presteigne District: area 11,999; population 2631; salary £45 per annum.

New Winchester Union.—Mr. Julian Willis has resigned the Micheldever District: area 18,500; population 2334; salary £152 per annum.

Scarborough Union.—The Workhouse is vacant: salary £70 per annum.

Woodbridge Union.—Mr. J. Owen has resigned the Eighth District: area 9413; population 1465; salary £32 10s. per annum. Also the Workhouse: salary £32 10s. per annum.

Worcester Union.—Mr. J. D. Jeffery has resigned the Workhouse: salary £60 per annum.

APPOINTMENTS.

Brecon.—Mr. Wm. Morgan as Analyst for the Borough.
Chipping Norton Union.—George W. Hutchison, M.D., C.M. Aber., L.R.C.P. Edin., to the Workhouse. Mowbray Jackson, M.R.C.S. Eng., L.S.A., to the Second District.

Great Grimsby.—James Baynes, jun., F.C.S., as Analyst for the Borough.
Leeds Union.—Arthur Llewellyn Evans, M.R.C.S. Eng. and L.R.C.P. Lond., to be Assistant Medical Officer at the Workhouse.

Merioneth.—Thomas Blunt, F.C.S., as Analyst for the County.
Stockport Union.—George W. Sidebotham, M.R.C.S. Eng., L.S.A., to the Hyde District.

Taunton Union.—James A. B. Thompson, M.D., C.M., to the Pitminster District.

Whitchurch (Salop) Union.—A. B. George, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., as Medical Officer for the Workhouse.

HARVEIAN SOCIETY OF LONDON.—The following is a list of the names of gentlemen proposed by the Council as officers of the Society for the year 1880:—*President*: *Henry Power, Esq. *Vice-Presidents*: George Eastes, M.B.; Robert Farquharson, M.D.; *E. J. Gant, Esq.; *W. H. Day, M.D. *Treasurer*: *James E. Pollock, M.D. *Hon. Secretaries*: J. Milner Fothergill, M.D.; George Field, Esq. *Council*: Henry Chas. Stewart, Esq.; T. Fitzpatrick, M.D.; H. E. Sewill, Esq.; H. T. Mapleson, Esq.; Edmund Owen, M.B.; T. Buzzard, M.D.; *G. C. P. Murray, M.D.; *W. Squire, M.D.; *G. Danford Thomas, M.D.; *W. Ward Leadam, M.D.; *J. W. Langmore, M.D.; *Owen Roberts, Esq. (An asterisk is prefixed to the names of those gentlemen who did not hold the same office the preceding year.)

UNIVERSITY OF CAMBRIDGE.—NATURAL SCIENCES TRIPOS, 1879.—*Class I*: 3, Ds. Cutfield, Christ's; 3, Forbes, St. John's (distinguished in Zoology and Comparative Anatomy); 1, Garbutt, Clare; 3, Nall, Trinity; 4, Reid, St. John's; 1, Stuart, C. M., St. John's; 1, Thompson, Trinity (distinguished in Physics and Chemistry); 2, Ward, Christ's; 1, Whittam, Caius. [1. Physics, Chemistry, and Mineralogy. 2. Botany. 3. Zoology, Comparative Anatomy, Human Anatomy, and Physiology. 4. Geology.] *Class II*: Anderson, Trinity; Boot, Trinity; Gibson, Sidney; Groom, W., Magdalene; Habershon, Trinity; Hurry, St. John's; La Touche, St. John's; Lister, St. John's; Trotter, Trinity. *Class III*: Bolton, R. H. B., Trinity; Browne; Capper, Trinity; Clark, Trinity; Dowson, Christ's; Procter, Trinity; Swift, Caius.

PRESENTATION TO SURGEON-MAJOR REYNOLDS, V.C.—On Wednesday, the 17th instant, Surgeon-Major J. H. Reynolds, V.C., of Rorke's Drift fame, received the degree of LL.D., *honoris causa*, at the Winter Commencements of the University of Dublin. After the conferring of the degree, a beautiful revolver and case were presented to Dr. Reynolds by his friends and admirers in Trinity College, Dublin. The following description was on the outside of the revolver-case:—"Presented to Surgeon-Major James Henry Reynolds, V.C., LL.D., by his fellow-students and other friends in Trinity College, Dublin, at the Winter Commencements, December 17, 1879, when the Degree of LL.D. (*honoris causa*) was conferred upon him by the University of Dublin." The revolver itself bore the following inscriptions:—1. "Iacobo Henrico Reynolds ob virtutem tantam ad Vada Rorkii Zuluviorum a. d. xi. Kal. Feb. MDCCCLXXXIX. praestitam condiscipuli amique alii in Coll. SS. Trin. iuxta Dubl. ver-santes hoc donum tantulum—χαλκεια χρυσειων—reddimus." 2. "Martis habens laeva dextraque Machaonis arma eripuit vitas hoste deditque suis."

THE YELLOW FEVER.—Prof. Cabell, President of a meeting of Sanitarians at Nashville, states that the following are the "Lessons of the Epidemic of 1879":—1. That in yellow fever, as in most other infectious diseases, unrestricted family intercourse is one of the most fruitful means of spreading the seeds of the infection, and by this means the disease

may be carried from a focus of infection to a previously uninfected locality, where a new focus may be developed. 2. That when prompt notice is given of a case thus imported into a previously uninfected place, proper measures energetically employed will generally suffice to arrest the spread. 3. That even when the outbreak has assumed the dimensions of an epidemic it is probable, by measures rather difficult of execution, and requiring not only the strong arm of the law and the use of the public funds, but also the willing consent of the population, to stamp out an existing epidemic by removing all the unacclimated portion of the population, and preventing the introduction of any such material from without.—*Louisville Med. News*, November 29.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon*.

Quackery.—16,727,669 stamps were affixed to patent medicines in the last financial year, and the duty was £132,385 19s. 4½d.

London Street Accidents.—The return published by the Society for Preventing Street Accidents for the week ending the 13th inst., shows—killed, 2; run over, 45.

Noteworthy.—In the last September quarter there was not a single death from small-pox in Scotland; and in England the number of deaths from that disease was the smallest on record.

Feminine Smoking in Canada.—According to the *Montreal Star*, ladies of that city are falling into a fashion of cigarette-smoking. The practice appears to be upon the increase in fashionable circles, and many ladies not only smoke in private, but offer the cigarette to acquaintances when they happen to drop in.

Hungarian Wine.—In consequence of the partial failure of the vintage in Switzerland, wine is largely being imported into that country from Hungary. Much of it is found to be adulterated with fuchsine, and a few days ago many hogsheads were seized at Zurich, thrown into the lake, and the vendors punished.

Items for Tobacco Smokers.—The German Federal Council has resolved to permit the use of cherry-leaves in the fabrication of tobacco; and the Court of Cassation at Rome has decided that the minimum quantity of foreign tobacco sufficient to establish a breach of the importation laws is two grammes.

Mr. T. B. Curling.—It was a mistake on the part of a contemporary to state last week that the above gentleman had resigned his seat in the Council of the Royal College of Surgeons preparatory to migrating, with the swallows, south. Such is not the case; he resigned, as we had previously stated, his seat as a member of the Court of Examiners.

Seasonable Information.—A correspondent writes:—"It is not generally known that glycerine will not freeze in an ordinary frost." By lubricating all taps with glycerine and covering exposed pipes of supply with strips of felt, he found the water come in daily, while his neighbours had none.

The Temperance Movement in Wales.—Mr. John Roberts, M.P., recently publicly stated at Liverpool that he had given notice of a Sunday Closing Bill for Wales because it was desired by the people. A canvass had been instituted, the result being, that of 60,000 replies nearly 98 per cent., and of 1200 replies from publicans 90 per cent., were favourable to the Bill.

A Worthy Example.—The family of the late Mr. Edward Newman, J.P., Barnsley, has forwarded one hundred guineas to the Chairman of Beckett's Hospital and Dispensary. The deceased was a strong advocate for plain and inexpensive funerals, and was interred in accordance with these views; but the family, not wishing to benefit by them, made the donation mentioned.

A Naïve Defence.—A publican was summoned at the Accrington Petty Sessions lately for selling rum reduced by water, one of the samples brought forward in evidence by the prosecution being 10 per cent. lower than allowed by law. The defence was, that the weaker the rum was, the better it would be for the public, as it would keep men sober and give less work to the magistrates. The ingenious argument had no effect on the Bench, and the defendant was fined 20s. and costs.

Open Spaces: Manorial Rights.—The Metropolitan Board of Works has resolved to negotiate for the acquisition by the Board of the rights of the lord of the manor in the following lands, viz.:—London Fields, Hackney Downs, Well-street Common (otherwise Hackney Common), North Mill Field, South Mill Field, Stoke Newington Common, and Clapton Common, and parcels of waste land at or near Dalston-lane and Grove-street—being the lands comprised in the scheme confirmed by the Metropolitan Commons Supplement Act, 1872. The obtaining of these manorial powers by the Board is a public necessity; it will assure the free, absolute and unrestricted use in perpetuity of these lands for the recreation of the people.

New Nosebag for Horses.—We have received from Mr. V. Barrington-Kennett a note regarding a new nosebag for horses, and are much obliged for the same. We fear we could not do much good by publishing the note without diagrams, for which Mr. Kennett has omitted to enclose the blocks.

Unfermented Wine.—A question of some interest to total abstainers has been raised by a prosecution at the Salford Borough Police-court. A chemist and druggist was summoned for selling to the inspector for the Borough, under the Adulteration Act, two bottles of "unfermented wine"—one of port and one of sherry—purporting to be unfermented wine, manufactured from the juice of the grape, and "used for family and sacramental purposes," which was not of the "nature, substance, and quality of the article demanded by the purchaser." The evidence of the Borough analyst was to the effect that the samples (analysed by him) were not composed of the pure juice of the grape. The "wine" might contain an infinitesimal quantity of grape-juice, but the proportion was certainly very small. For the defence it was urged that the wine contained one-sixth part of pure grape-juice, the other part being sugar and water, with a small quantity of burnt sugar for colouring purposes, and another ingredient for the purpose of preserving the liquor. There was, it appeared, a large sale for the wine all over the country. The magistrate dismissed the case, deciding that although the wine might contain, only a small proportion of the juice of the grape, it did contain some little and as there was no commercial standard fixed as to what proportion of juice it should contain, no offence had been committed.

Urban and Rural Sanitary Works.—The West Sussex, East Hants, and Chichester Infirmary is about to be enlarged.—At Carlisle, the urgent need that has been felt for artisans' dwellings during the past five years has been provided to the number of between eight and nine hundred, which have mostly been erected at Denton Holme and in Botchergate.—The Local Board of Denbighshire are about to carry out four thousand lineal yards of sewerage in the district of Penmaenmawr.—The Local Board of Llanfrechfa has decided to carry out sewerage works in the district at an estimated cost of £2000.—A new outfall sewer is being constructed at Sandown, Isle of Wight, for the Local Board of Health, at a cost of £4200.—Extensive drainage and sanitary works are about to be commenced at Garristown.—The Corporation of Dublin have decided to establish a public abattoir on a site comprising two acres of ground.—Another Local Government Board inquiry with reference to the drainage and sewerage of Dorking and Leatherhead has just been held, and the authorities of the two towns have now agreed to unite for the purpose of carrying out a joint scheme. This inquiry had for its object the settling of the boundaries.—An agreement has been entered into between the Chelmsford Local Board of Health and the Chelmsford Urban Sanitary Authority for a new joint sewerage scheme, and lands are to be acquired at Brook-end, Springfield, for the sewage.—The Town Council of Preston has resolved to promote, in the next session of Parliament, an Improvement Bill.—The Halifax Rural Sanitary Authority are about to carry out drainage works at Skircoat Green.

THE TOBACCO PROBLEM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Your correspondent, "R. H.," points out that the reason why I am miserable when I cannot see the fumes of my tobacco-pipe, and don't even know whether I am smoking or not, arises from the happy correlation of the senses being upset when the candle is put out. He speaks as though my enjoyment was only impaired when I have to smoke in the dark, but I complain that it is destroyed. I say, like Macbeth, "Mine eyes are made the fools of the other senses, or else worth all the rest." I know that many people do not suffer as I do. There are those who take tobacco as a narcotic, and some who take it as a stimulant. Cold and hungry, the sailor may take a chew; or, burning the candle at both ends, the fast young man may indulge in the very strongest forms of the weed. He may think as, and feel with, the Scholar in *Faust*, who owned that, "Ein starkes Bier, ein beizender Toback, und eine Magd im Putz, das ist nun mein Geschmack!"

But I don't want tobacco either as a sedative or an intoxicant; and yet I smoke, and find a wonderful relief when watching the curling wreaths of the mildest tobacco which can be bought. Now, why is this? I suspect that tobacco-smoking, as practised by me and other philosophers of my school, is no sensual enjoyment at all! It is noble, for it is a form of work. I acknowledge that it is a mild sort of exercise, but yet I insist that it is calling the body into play for a definite, good purpose. It is throwing the pebble to kill the giant *Ennui*, and it is more—it is an honest, manly effort to combat too much thought. There are other and coarser ways of making such an effort which a vain and vulgar public approves. The mob stands by and applauds when a great statesman, whose brain is getting too much for him, takes an American axe and fells a tree. Men see then that he is doing a wise thing, for he is calling the body into play, to calm, annihilate, or circumvent a rush of thought. But men are not clever enough to perceive that the tobacco-smokers are working just in the same direction when they light their pipes! Just as the statesman watches the flying chips, so does the philosopher eye the curling clouds. The men are both workers, both deserving of admiration; but the smoker, not making such a fuss about a trifle, is the worthier of the two. The axe is nothing; the pipe is nothing; but the motive is all in all.

There are some non-smokers who adopt other mild forms of labour to dissipate thought. Observe the betting-man with a straw in his mouth! He chews it that he may not think of what will happen to him at the next races. Listen to the City man who rattles his money in his trousers pockets! He does it that he may not think of the state of the market. I believe, even, that people may chew jujubes on principle; but I am very sure that tobacco-smoking may, in some cases, be considered as a praiseworthy and industrious pursuit. I am, &c., A DREAMER WITH OPEN EYES.

Ensuring Infants' Lives in "Clubs."—At Droylsden, recently, an inquest was held on the body of an infant found by its mother in a fit on the previous Saturday morning, and which died an hour later, before medical assistance was procured. On a post-mortem examination being made, the body of the deceased child was found to be in a most emaciated condition, the immediate cause of death being congestion of the lungs and brain. It appeared that the mother had greatly neglected her child. She stated that she had had ten children, of whom only two now remain alive. Inquests had been held on three of her dead children. She admitted that she took the child out at eleven o'clock on the previous Friday night improperly clad, and stood drinking in a beer-house with it in her arms. It was also elicited from her that she had £2 10s. "club money" to draw from two societies in which the child was "insured." A verdict was returned to the effect that death was accelerated by want and exposure; and the mother was severely censured.

COMMUNICATIONS have been received from—

Mr. V. B. BARRINGTON-KENNETT, London; Mr. GEORGE FIELD, London; Mr. W. T. WHITE, London; Dr. J. MITCHELL BRUCE, London; Mr. GEO. GASKOIN, London; Mr. NELSON HARDY, London; THE REGISTRAR OF APOTHECARIES' HALL, London; Mr. J. T. W. BACOT, Seaton, Devon; THE SANITARY COMMISSIONER, Punjab; THE HON. SECRETARIES OF THE SOCIETY OF MEDICAL OFFICERS OF HEALTH, London; Rev. CHARLES BULLOCK, Blackheath; THE EDITOR OF "IRON"; Dr. J. PEARSON IRVINE, London; Mr. J. CHATTO, London; Mr. RICKMAN J. GODLEE, London; Dr. W. R. GOWERS, London; Dr. A. P. STEWART, London; Mr. D. COLQUHOUN, London; Mr. T. M. STONE, London; Dr. CLEMENT GODSON, London; Dr. EDWARD I. SPARKS, Mentone; Mr. E. A. SCHAFER, London; Mr. W. SPENCER WATSON, London; THE HON. SECRETARIES OF THE BRADFORD MEDICO-ETHICAL SOCIETY; Mr. P. HINCKS-BIRD, London; Dr. JAMES DUNLOP, Glasgow; Mr. E. L. HUSSEY, Oxford; THE SECRETARY OF THE ROYAL INSTITUTION; THE REGISTRAR-GENERAL, Edinburgh; Dr. NORMAN CHEVERS, London; Dr. J. W. MOORE, Dublin; Mr. LIONEL DRUITT, London; THE CHAIRMAN OF THE GERMAN HOSPITAL, Dalston; Mr. JOHN HALL, London.

BOOKS AND PAMPHLETS RECEIVED—

Quarterly Report on the Sanitary Condition of Whitechapel—Treatment of Hepatic Disease, by Wm. Stewart, M.D.—Manual of the Apiary, by A. J. Cook—Catalogue and Circular of the Illinois Industrial University—Ring the Bells—Robin's Carol—Address to the Society of Medical Officers of Health, by J. S. Bristowe, M.D., F.R.C.P.—A Review of Lord Coleridge's Judgment in the Court of Common Pleas—How to Wash at Home, by Mrs. H. Sheldon-Williams—Reports on Sanitas, second edition—Transactions of the Pathological Society, vol. xxx.—On Vaccination, by Charles Cameron, M.D., M.P.—Psycho-Physiological Training of an Idiotic Hand, by Edward Seguin, M.D.—Supplement to the Queensland Government Gazette.—Traité Pratique des Maladies des Yeux des Mouvements Irrésistibles—Visiting List, by Dr. Alfred Sheen—Parish of St. Marylebone Monthly Health Report—New South Wales Vital Statistics for 1879.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Louisville Medical News—Nature—National Board of Health Bulletin—Mirror—Revue Médicale—Boston Journal of Chemistry—North Carolina Medical Journal—New Preparations—Michigan Medical News—Detroit Lancet—Archives of Medicine—St. Louis Courier of Medicine—New York Medical Journal—Bradford Observer, Dec. 4 and 11—Canada Lancet—Preston Guardian—Eastern Daily Press—Illustrated Household Journal—Canadian Journal of Medical Science—Bolton Chronicle.

APPOINTMENTS FOR THE WEEK.

December 20. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

22. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

23. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopaedic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

24. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

25. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

26. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

QUESTET MICROSCOPICAL CLUB (University College), 8 p.m. Meeting.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 13, 1879.

BIRTHS.

Births of Boys, 1270; Girls, 1206; Total, 2476.
Average of 10 corresponding years 1869-78, 2333.6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	1060	1072	2132
Average of the ten years 1869-78	864.8	826.9	1691.7
Average corrected to increased population ... ..	...	...	1810
Deaths of people aged 80 and upwards ... ..	...	...	88

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula- tion, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea
West	561359	...	6	15	...	8	...	1	...	2
North	751729	...	5	21	3	16	...	3	2	4
Central	334369	...	4	6	...	6	...	4	...	...
East	639111	...	21	27	2	15	...	3	...	1
South	967692	3	27	50	5	27	...	4	2	4
Total	3254260	3	63	119	10	82	...	15	4	11

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	30.406 in.
Mean temperature ... ..	...	...	...	...	...	31.1°
Highest point of thermometer ... ..	...	...	...	...	...	37.1°
Lowest point of thermometer ... ..	...	...	...	...	...	13.7°
Mean dew-point temperature ... ..	...	...	...	...	...	28.2°
General direction of wind ... ..	...	...	...	...	...	S.W.
Whole amount of rain in the week ... ..	...	...	...	...	...	0.05 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Dec. 13, in the following large Towns:—

Boroughs, etc. (Municipal bound- aries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Dec. 13.	Deaths Registered during the week ending Dec. 13.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values		In Inches.	In centimetres.
London	3620868	48.0	2476	2132	37.1	13.7	31.1	-0.50	0.05	0.13
Brighton	105608	44.9	49	43	40.0	22.0	33.2	0.67	0.01	0.63
Portsmouth	131821	29.4	83	51	...	...	...	...	...	...
Norwich	85222	11.4	48	40	39.0	12.0	29.5	-1.33	0.16	0.41
Plymouth	74293	53.3	57	50	41.0	21.2	34.3	1.28	0.02	0.05
Bristol	209947	47.2	147	111	...	...	...	...	...	...
Wolverhampton	75100	22.1	39	47	37.7	13.5	28.0	-2.22	0.00	0.00
Birmingham	388384	46.3	269	249	...	...	...	...	...	...
Leicester	125622	39.3	84	71	...	...	...	...	...	...
Nottingham	169396	17.0	123	99	39.7	-1.3	25.3	-3.72	0.13	0.33
Liverpool	538333	103.3	415	427	43.3	25.4	34.6	1.45	0.03	0.08
Manchester	361819	84.3	234	215	...	...	...	...	...	...
Salford	177849	34.4	102	125	...	...	...	...	...	...
Oldham	111318	23.9	68	47	...	...	...	...	...	...
Bradford	191046	26.5	147	106	38.0	13.2	29.8	-1.33	0.07	0.18
Leeds	311860	14.5	233	183	38.0	11.0	29.9	-1.17	0.16	0.41
Sheffield	297138	15.1	186	131	42.5	12.7	33.0	0.56	0.00	0.00
Hull	146347	40.3	110	76	39.0	7.0	24.1	-2.17	0.12	0.30
Sunderland	114575	41.4	76	39	41.0	21.0	33.2	0.67	0.04	0.10
Newcastle-on-Tyne	146948	27.4	128	72	...	...	...	...	...	...
Edinburgh	226075	53.9	137	110	41.8	23.0	31.8	-0.11	0.42	1.07
Glasgow	578158	95.8	354	343	43.3	25.0	34.4	1.33	...	...
Dublin	314666	31.3	183	263	44.7	17.9	32.0	0.00	0.05	0.13
Total of 23 Towns in United Kingdom 8502896	...	38.6	5748	5043	44.7	-1.3	31.2	-0.45	0.09	0.23

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30.41 in. The lowest reading was 30.13 in. at the beginning of the week, and the highest 30.60 in. at noon on Saturday.

* The figures for the English and Scottish towns (except for Nottingham, Salford, and Oldham) are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated at the rate which prevailed between 1861 and 1871. Revised estimates have been adopted for Nottingham, Salford, and Oldham, based upon special returns of inhabited houses existing within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURES ON DISEASES OF THE HEART IN CHILDHOOD.

Delivered at the London Hospital.

By ARTHUR ERNEST SANSOM, M.D. Lond., F.R.C.P.,
Assistant-Physician to the London Hospital, and Senior Physician to the
North-Eastern Hospital for Children.

LECTURE IV.

HEART-DISEASE OF OBSCURE OR UNTRACED ORIGIN.

So far as we have examined the evidence before us, we have found reason to conclude that there are two proximate causes of the forms of heart disease which affect children, viz., (a) rheumatism, (b) certain acute specific fevers. It seems to me perfectly clear that the theory of Billroth and Weber, asserting that "the blood of a person actually suffering from fever, of whatever kind, acts as an inflammatory irritant, and the endocardium is in a pre-eminent degree liable to inflammation from such a cause," (a) cannot be substantiated. The causes of pyrexia in children are numerous: it is very common for high temperature to be maintained for long periods, during which there is no evidence to show that endocarditis arises; whilst, on the other hand, it is proved that disease of the valves may originate and progress without any febrile manifestation. Enteric fever is especially characterised by high temperatures, yet I have never observed endocarditis to be declared in its course. It is true that a murmur at the apex of the heart may become developed during the disease, and you may imagine that it is due to regurgitation caused by valvular imperfection. Further observation will show, however, that the murmur alters its position, its point of maximum shifting to the right, and eventually existing only over the great vessels; it is due not to valvular change, but to disease of the muscular structure, to myocarditis. The numerous and careful researches of M. Hayem have shown that the fibrillæ may undergo a special form of morbid change, but endocarditis has no causal relation with typhoid fever. (b)

It is possible that some forms of endocarditis may have a zymotic causation—such as the form which has been described by Lancéreaux as associated with poisoning by paludal miasm, or that occurring in septicæmia; but of these as occurring in children I have had no experience. We cannot fail to observe between the cases which we have already considered, whether associated with rheumatism or initiated by scarlet fever or measles, a strong clinical resemblance. As to the mode of production of disease of the valves in rheumatism, there have been important experimental researches—the most important by Dr. B. W. Richardson on the result of the injection into the peritoneal cavities of animals of solutions of lactic acid. Dr. Richardson found that after such injection the valves became vascular and swollen, and yielded a fibrinous exudation; subsequently the tissues were shrunken and the valves inadequate; in fact, the changes resembled with the utmost closeness those observed in rheumatic endocarditis in the human subject. A synthetical proof of the influence of the excess of lactic acid in the blood in inducing the phenomena of rheumatism has been advanced by Dr. B. Foster, who, having administered the acid for the treatment of diabetes mellitus, found that pain and swelling of the joints became manifest in a seemingly distinct causal relation. (c) Thus we have evidence of the effect of lactic acid (Foster)—a, in inducing the phenomena of rheumatism; b, in determining endocarditis (B. W. Richardson confirmed by Rauch and Mosler). It is clear that the presence of lactic acid in excess in the blood is due to perverted retrograde metamorphosis; but it is by no means proved that lactic acid is the only organic product capable of inducing inflammation of the fibrous tissues. It is comparatively rare for endocarditis to occur in gouty subjects, in whom the blood and tissues are surcharged with urates. It would appear, therefore, that the

acid products generated under the condition of acute rheumatism are those most prone to provoke the disease. It is in many cases obvious that the attack is brought about by a check to the eliminating organs—a chill, for instance. Then it is clear how the blood becomes loaded with products that should be excreted. As regards scarlatina and rubeola, whilst we have found no evidence to show that the heart-disease which occurs in relation with them is due to the direct operation of the zymotic poisons, we have a considerable amount of data tending to prove that in their course a condition of blood is induced which bears a close analogy with that occurring in rheumatism. These diseases are characterised by high arterial tension; in both the blood is contaminated by an overplus of excretory products. In scarlatina this is enhanced by the special involvement of the kidneys, so that excretion by one of its chief channels is greatly impaired. In measles the pulse, as shown by the sphygmograph, is one of high tension, and is in contrast with that in typhoid, which is a disease characterised by low tension in the arterial system. I think, therefore, that in the acute diseases mentioned it is vastly more probable that the intercurrent cardiac diseases which have such a striking resemblance with the rheumatic forms have their rise in the superinduced blood conditions than that they are the direct results of the action of the zymotic poisons. Whether connected, therefore, with obvious rheumatism, with scarlet fever, or with measles, it is most likely that the cases of cardiac disease which we have been considering have a similarity of origin as they have of clinical characters.

I have now to call your attention to a number of cases in which evidence of the proximate cause of heart-disease is wholly wanting. It is proved that uncomplicated pericarditis can be determined by a sudden exposure to cold, but it is supposed that disease of the valves in a so-called idiopathic form is exceedingly rare. Dr. Hayden says:—"It has been assumed also that acute endocarditis may occur in the simple idiopathic form—that is, unassociated with other antecedent or concurrent lesion, and not attributable to any of the usual constitutional causes. I have never met with an example which could be fairly adduced in support of this doctrine, and I question its truth." (d) Dr. Hayden, however, agrees that endocarditis occasionally, though very rarely, constitutes the only manifestation of the rheumatic diathesis. My own experience in cases of children is that endocarditis by no means infrequently arises and progresses without the manifestation of obvious cause and without the betrayal of constitutional signs save those which are the consequences of the disease.

The following table includes these cases:—

TABLE IV.—Heart Disease in Children without Evidence of Causation.

Pericarditis (5 cases)—	
Uncomplicated	1 case
Complicated with endocarditis, inducing mitral regurgitation	4 cases
Endocarditis (34 cases): inducing—	
Mitral regurgitation	21 "
Mitral stenosis	4 "
Mitral regurgitation and stenosis	8 "
(In three cases marked hypertrophy.)	
Mitral regurgitation and aortic regurgitation	1 case
Dilated Left Ventricle	1 "

First, however, I will consider two cases in this category that might, according to the judgment of some, be better placed in the list of rheumatic forms. You will remember that in my former lecture I mentioned these as of doubtful classification—they furnish, I think, a link between the rheumatic and the idiopathic forms. These are—

I. Cases manifesting Eruptions probably associated with the Rheumatic Diathesis.—One of these was a boy of twelve, who frequently had eczema upon the face. He had none of the symptoms of heart-disease, nor did the most careful inquiry elicit any history of rheumatism or of any of the causes of endocarditis. Yet there was a prolonged blowing systolic murmur, of maximum intensity at the apex. I have many times observed this case, which is undoubtedly one of mitral regurgitation well compensated. The other case abundantly demonstrates how heart-disease in the child can

(a) Quoted by Hayden, "Diseases of Heart and Aorta," p. 799.
(b) Cf. Hayem, "Études sur les Myosites Symptomatiques" (*Archives de Physiologie*, 1870). "Recherches sur les Rapports existants entre la Mort Subite et les Altérations Vasculaires du Cœur dans la Fièvre Typhoïde" (*Archives de Physiologie*, 1869; *Progrès Médical*, 1875).
(c) "Clinical Medicine," page 144. Churchill, 1874.
VOL. II. 1879. No. 1539.

(d) Hayden, *loc. cit.*, page 794.

arise and progress without characteristic symptoms. A little girl of ten was admitted into the North-Eastern Hospital for Children on June 24, 1871, with an eruption upon the arms which resembled "psoriasis guttata." We found, however, that the spots were small circles of "erythema circinatum." There were no joint-pains whatever, and no troubles of respiration or circulation; but there was an increase of cardiac dulness, and manifestation of the friction-sound of pericarditis. The only other noticeable sign was copious diaphoresis. There were successive crops of the circles of erythema; but the notes state, "No urgent symptom whatever except copious perspiration. No pain whatever. No cough nor pain at chest." The friction-sound passed away, leaving the systolic murmur of mitral regurgitation and the diastolic murmur of aortic regurgitation. The child, discharged on August 6, was readmitted on November 23, suffering from much cough, and there were signs of much hypertrophy. Then, in December, developed a new attack of pericarditis, during the course of which there were no cough, no constitutional signs, no local pain; whilst the rubbing sound was very loud. The notes say, "No symptom whatever. Appetite good." The attack ended in recovery, with the persistence of a soft blowing murmur heard in the region of the apex and between the scapulæ. This case may be compared with the former one, which I described as manifesting "erythema marginatum," the difference being that whilst in the one case there was typical rheumatic fever, in the other there were no articular signs whatever. Certain forms of eruption have been described in connexion with acute attacks of rheumatism by many authors. Amongst these is the form of purpura called "*peliosis rheumatica*" by Schönlein. In one of my distinctly rheumatic cases there was a crop of purpura-spots upon the left cheek. Eczema is also notably associated with the rheumatic diathesis. Roseola has been noted by Virchow in a case of endocarditis—not of the rheumatic form, but in a woman after childbirth, in whom the disease of the valves was attended by embolic infarction in many of the viscera. Erythema circinatum is known as an accompaniment of acute rheumatism. So I think the case I have quoted shows that the occurrence of the allied erythema marginatum may be, in rare cases, the only obvious sign of an attack of rheumatic endo-pericarditis. Such cases may be regarded as a link between those obviously connected with rheumatism and others with a similar clinical history in which there is no indication of a rheumatic history. We turn now to those cases in which no history nor recognised symptom of rheumatism existed; and it will be convenient to classify them according to the symptoms for which they especially sought relief.

II. *Cases manifesting Symptoms referred to the Nervous System.*—The following may be taken as an illustration; the notes were carefully kept by my former House-Physician, Mr. Major Greenwood:—Amy F., aged ten, was admitted into the North-Eastern Hospital on August 29, 1877, with cough and signs of wasting. The child had been ailing for twelve months, but had had no defined disease nor sign of rheumatism. Two months before admission she suddenly became paralysed in the right arm and leg. She recovered, however, complete muscular power. There were now marked anæmia, œdema, and ascites. Urine non-albuminous. A loud systolic murmur (of mitral regurgitation) was heard at the apex. Treatment consisted of purgation by elaterium, and administration of digitaline hypodermically. The rate of the pulse was reduced by eight per minute after each injection of one-hundredth part of a grain of digitaline. The ascites subsided, and it was found that the liver was much enlarged. The dropsy passed away, and the child made good improvement, so that she was sent to our Convalescent Institution. On her return to her own home, however, she became worse, and died January 2, 1878. At the autopsy there was found evidence of endocarditis, with disease of the mitral valve, the orifice being slightly contracted, without, however, hypertrophy of the left auricle. The heart was greatly hypertrophied. There had been extensive pericarditis, with universal adhesion of pericardium to heart. Case 2 was that of a boy, W. G. L. There was no history of rheumatism, but suddenly, at the age of three years and a half, an epileptic fit occurred, attended with unconsciousness for the space of twenty minutes. Nine months afterwards chorea became manifest, from which recovery took place. After another period of nine months there

was a second attack of chorea. The child now coming under observation, there was found to be a well-marked presystolic murmur, followed by a short systolic, at the apex. She was discharged with recovery from the chorea. In Case 3, a little girl of five, with no history of rheumatism nor family tendency thereto, became subject to epilepsy. The fits were of short duration, but were well marked; many occurred while the child was in the hospital. There was a short presystolic murmur of low pitch at the apex, and a systolic murmur of higher pitch at the base. The cardiographic tracing was characteristic of mitral stenosis, with protracted diastolic pause, during which were many coarse vibrations, and a short sudden peak of ventricular systole. The evidence was that of very considerable narrowing of the mitral aperture. Case 4 was that of a boy of eleven (Edward F.). Two months previously to his visit to the hospital he became attacked with chorea with much affection of speech. There was right *hemichorea*, with marked hemianæsthesia. A loud blowing systolic murmur was heard at the apex, and over the aortic cartilage a rough systolic murmur. After three weeks of treatment by iron and arsenic the murmur in the aortic area could be no longer distinguished; that at the apex was soft and of low pitch. In Case 5, Harriet R., nine, presenting no history of rheumatism, had three fits (of epilepsy) at the age of eight. She complained of palpitation of the heart, and there were manifest signs of hypertrophy of the left ventricle with mitral regurgitation. Case 6, a girl of twelve (Kate M.), who had never suffered from rheumatism, though there was a family tendency thereto, manifested right *hemichorea*. There was a localised presystolic murmur at the apex, with thrill. The cardiographic tracing indicated only a slight degree of mitral stenosis. Case 7, a boy of eight (Alfred W.), with no evidence of rheumatism, but with a history of rheumatism in the family, became affected with left *hemichorea*; eight months afterwards the choreic convulsion was bilateral. On admission a presystolic and a systolic murmur were evident at the apex. Subsequently only a systolic murmur was audible, and after three weeks in the hospital this also was inaudible. Case 8, Julia B., aged seven, admitted with a second attack of bilateral chorea—no history of rheumatism—a well-marked but soft systolic murmur at the apex. Case 9, Ada H., aged six. In this case also there was a second attack of bilateral chorea in a subject of mitral regurgitation. The peculiar feature of the case was that the attack of chorea seemed to be determined by the presence of an "*ascaris lumbricoides*," for on the first occasion the expulsion of a large round worm was followed by recovery, and this time also a large worm was passed. Case 10, Eliza G.; chorea at age of six years and a half. Observed at age of ten: great hypertrophy of heart; action very intermittent; presystolic and systolic murmurs in mitral area, and marked thrill.

A review of these cases teaches us that in the subjects of heart-disease, the origin of which has not been declared by any obvious signs, sudden lesions of the nervous system may be manifested. As examples of such lesions we have—hemiplegia, hemianæsthesia, epilepsy, and chorea. The choreic convulsion in some cases begins by involving one side only of the body (the right in two cases, the left in one), and subsequently may become general. Epilepsy may be followed by chorea, and *hemichorea* may be accompanied by hemianæsthesia. The next notable point is the marked preponderance in these cases of the lesion of *mitral stenosis*. Of the prevalence of this in the instances in which the causation of the heart-disease is obscure and unattended with symptoms, I shall speak hereafter.

As regards the nervous phenomena, we have here a strong confirmation of the theory that these are due to embolic plugging of some of the arteries supplying the cerebro-spinal centres. Out of the ten cases in which nervous lesions were suddenly manifested, six showed undoubted signs of stenosis of the mitral aperture—a condition in which we know that plugs of fibrin are apt to form either in the left auricle or on the borders of the diseased valves, and, becoming detached and carried into the arterial current, block the arteries into which they happen to be cast. And in one other case in which mitral stenosis was not declared there was evidence of obstruction at the aortic outlet, the murmur indicating which subsequently disappeared, thus giving colour to the view that a vibrating tongue of fibrin on the semilunar valves had become washed away by the blood-stream.

We now turn to another class of cases.

III. *Cases of Heart-Disease betrayed only by Disorders of Nutrition.*—We have instances in which *pericarditis* begins with no other symptoms than anæmia and wasting, with recovery of nutrition after the signs of the disease have passed away. The following case may be taken as an illustration:—Charles G., aged ten and a half, was admitted on account of wasting, anæmia, and occasional duskiness of surface. He had never had rheumatism, and in fact “had never been ill till now.” The record says distinctly, “No dyspnœa.” There was a loud to-and-fro friction-sound over the præcordium. Besides the pericarditis, there was endocarditis, a systolic murmur becoming developed at the apex. In other instances valvular disease has been declared only by symptoms of mal-nutrition: of four such cases the lesion was mitral regurgitation.

In the last sub-division of the idiopathic class I shall place—

IV. *Cases of Heart-Disease first manifested by Disorders of Respiration or Circulation.*—It is by no means unusual for a child to be admitted only on account of cough, and then, with no history to lead one to imagine the probability of heart-disease, the physical signs of imperfection of the valves to be manifested. The cough usually depends either on inter-current bronchitis or on broncho-pneumonia. Pleuritis with effusion co-existed with broncho-pneumonia in a case in which mitral stenosis and regurgitation had occurred without any signs to mark origin and progress. It is an accepted view that tubercular phthisis is rare in the subjects of chronic heart-disease. I have seen exceptions to this rule—a notable one in a case of rapid tuberculosis in the subject of extreme mitral stenosis. With the single exception of pulmonary stenosis, as I mentioned in a former lecture, there is a decided immunity from tubercular changes in the course of heart-disease. The following case offers an interesting illustration of this point:—William R., aged six, was admitted under my colleague Dr. Cayley, with evidence of consolidation of the upper lobe of the left lung with the signs and symptoms of pulmonary phthisis. Besides these conditions, however, there was evidence of cardiac hypertrophy with the murmur of mitral regurgitation. The case terminated fatally, and at the autopsy it was found that there was collapse of the upper lobe of the left lung; the bronchi were much thickened and contained purulent secretion. There were, however, no tubercles nor evidences of caseous pneumonia. The heart was hypertrophied, and there were vegetations both on the mitral and the tricuspid valves. In this case, supposing there had been no evidence of valvular disease of the heart, the diagnosis would have been ordinary tubercular phthisis. In the condition of heart-disease there was no development of tubercle; the phthisical signs and symptoms were due to bronchitis and bronchiectasis.

In another set of cases the signs of cardiac disease commencing in a manner which has been insidious and untraceable have been referred only to the heart and circulation. The symptoms have been those which we are accustomed to see in adults, on which we need not dwell. There have been manifested palpitation, dyspnœa of the form we are accustomed to associate with cardiac disease, œdema, and ascites. As I mentioned in relation with the cases obviously rheumatic, so with these, there has been usually great improvement under rest and suitable treatment, large accumulations of dropsical fluid passing away, and the children discharged with very few symptoms remaining. Some have manifested severe præcordial pain: in these there has been very generally marked hypertrophy. Such undue hypertrophy I take to indicate the existence of pericardial adhesion; in cases, therefore, of marked pain at the præcordium, with signs of hypertrophy (except in aortic regurgitation, where there is adequate cause for such hypertrophy) I would have you suspect the existence of pericardial adhesions.

A review of all the cases which I have brought before you in this lecture will, I think, convince you that heart-disease occurs in children in an insidious manner, unaccompanied by signs of rheumatism, or by any circumstance suggesting a probability of its arising, more commonly than is usually supposed. In this category we meet with cases which in their clinical characters do not appreciably differ from those which we are accustomed to observe in connexion with undoubted rheumatism.

On comparing them, however, with the other classes of cases, there is a feature which cannot escape our attention.

We see that whilst in kind the lesions are alike, in degree they differ, in that the cases of obscure causation are much more prone to manifest the lesion of *mitral stenosis*. Thus in the rheumatic class the proportion manifesting signs of some degree of mitral stenosis was five in fifty-four, or 9·2 per cent.; in the class of cases initiated by scarlet fever or measles the proportion was four in nineteen, or 21 per cent.; and in the idiopathic class, twelve in forty, or 30 per cent. This bears out the statement of Dr. Hilton Fagge that mitral stenosis is more frequently met with in those who have not betrayed obvious signs of rheumatism. From our experience, however, of some cases in which the signs of disease developed under our own observation with few or no symptoms, we have no need to assume that these are of congenital origin. It would rather appear that the disease which produces mitral regurgitation runs a quicker, whilst that inducing stenosis runs a slower, course. The one, associated with acute disease, tends to the retraction of the curtains of the valve; whilst the other, attended with adhesion of the curtains and slow fibrous proliferation, gradually forms the funnel-shaped or slit-like aperture obstructing the flow from auricle to ventricle. The general characters of the endocarditis which occurs in children are all those of the rheumatic form, and as they have a common resemblance, so probably they have a common pathogeny. That is, in all cases there is a disturbance of retrograde metamorphosis. Whether from chill and exposure arresting the action of the great emunctories, or from the slower operation of an ill-balanced nutrition, in either case aided perhaps by the tendencies developed by inheritance, the blood becomes charged with certain excrementitious products which produce hurtful effects upon fibrous membranes. And in childhood the endocardium may be attacked when the serous membranes of the joints do not participate.

Giving these considerations their due weight, we are taught the importance of the *preventive treatment* of heart-disease in children. In cases where the disposing cause is chill, the proximate sign articular pain, and the accompaniment rheumatic pericarditis or endocarditis, it is obvious that the protection of the body from vicissitudes of temperature might have averted the category of evils; and in those cases in which heart-disease has been insidious, and due, as we believe, to perverted processes of nutrition, a carefully regulated alimentation might have prevented the mischief. Seeing the exposure, the neglect (partly enforced, partly unavoidable), and the depraved dietary, to which the children of the poor are subject, can we wonder that such diseases as we have considered are common?

ORIGINAL COMMUNICATIONS.

A CASE OF RETENTION OF FÆCES FOR TWELVE MONTHS.

By JAMES DUNLOP, M.D.,

Professor of Surgery, Anderson's College, Glasgow; Surgeon to the Royal Infirmary.

IN the issue of the *Medical Times and Gazette* of November 8, 1879, there is a clinical lecture on Retention of Fæces, by Dr. Matthews Duncan, of St. Bartholomew's Hospital, which I have read with great interest, all the more so that it makes now quite clear to me a case in which I was consulted in May last with the view of possibly operating with the thermocautery for a diseased condition of the rectum thought to be due to a limited scirrhus, some of the details of which may be sufficiently interesting to be placed on record.

Mrs. G., aged fifty-four years, and the mother of four children now grown up. For fully more than twelve months she had been in what she termed bad health—confined more or less to bed, seldom able to do more than walk from her bedroom to the drawing-room. Her great and constant complaint was the state of her bowels. She seldom had any passage in them without medicine, and when they did move, her sufferings were so great that she dreaded going to stool; and days, sometimes even weeks, were allowed to pass without even an attempt at defæcation. Her life was rendered miserable by her condition of continuous suffering. At night the pain and the sense of fulness and pressure in her rectum were very great, and to relieve her agony she had

recourse to keeping the surface of the anus and perinæum lubricated with oil. From time to time, and more especially after aperient medicine, there was a greenish, ill-smelling discharge from the bowels. It was often tinged with blood, and as it came away there was some relief obtained. In consequence of the confinement and suffering she had become very nervous and debilitated; and as it had been hinted that her disease might be of a cancerous nature, she had resolved to suffer in silence and probably to die soon.

When invited to see her in May last I found her in great distress, extremely reluctant to submit herself to any examination, or to have anything done for her beyond the application of oil and cotton-wadding. I explained to her husband, in her hearing, that I could not offer any opinion regarding the nature of his wife's complaint, and certainly would not prescribe for her, as she desired, without ascertaining the condition of the bowel.

After a little time she consented, and I introduced my oiled finger cautiously and tenderly into the rectum, half expecting that I should find a stricture due to a mass of malignant disease. Instead of a diseased mass my finger came in contact with a round smooth tumour about the size of a small cricket-ball. It was quite movable, and I could turn it round and round in a large pouch in the rectum. I noticed that as I moved the mass about a quantity of thin greenish fæculent matter with a most offensive odour escaped. As she was suffering greatly, and very nervous, I had to content myself at this visit with the examination only. I was, however, satisfied that the case was not one of malignant disease of the rectum, but only a scybalum which was lying in a large pouch of the rectum just above the anus, and that while it was retained it obstructed the solid portion of the fæces, only permitting the fluids to pass from time to time along its sides. On the following day, with my fingers, aided by the handle of a spoon, I broke down the mass and removed it in pieces.

On the removal of the scybalum, which was dry, hard, and greenish in colour, I washed out the rectal pouch with tepid water, and to my surprise there was ejected quite suddenly a large quantity of ill-conditioned fæces which had long been pent up in the descending colon. Since then the lady has regained strength, and is now quite well. Her great regret is that she had not insisted upon being examined at an early date, so as to have been saved months of suffering and much mental anxiety.

SURGERY AT THE ANTIPODES. STONE IN THE BLADDER—LITHOTOMY.

By FREDERICK IRVING DE LISLE, M.D.,

Formerly Surgeon to the Hospital of St. Peter Port, Guernsey, Channel Islands.

On July 16 I was consulted about Antony G., aged five, who was brought in to see me from Havelock, a town about fourteen miles up the country, with the following history:—For nearly two years he has suffered from pain in passing water, accompanied with straining. The mother has noticed the water stop suddenly when passing, and, when she has buttoned him up, the water has passed involuntarily. Some of his water has been brought in for my inspection; it contains a considerable deposit of phosphate of lime, which the mother informs me that she has observed frequently lately, but she has never observed blood in the urine. The mother has frequently observed him pulling his penis, and, when she chides him for it, he invariably says, "I must pull it, mother." She does not remember his having complained of pain in it. She has noticed that he does not care to run about and play with other children. She has had medical advice for him from two medical men, but "neither of them seemed to understand the case."

The child is small, pale, and undersized, the muscular development being particularly backward. He has an anxious expression indicative of suffering, walks uncomfortably, always holding his mother's hand, and displays none of that restless activity so common in children of his age. The prepuce was elongated, and testicles retracted. A sound was passed into the bladder, and the stone distinctly felt and struck, the bladder being so irritable that the attempt to introduce the sound caused the urine to gush out with considerable force.

An operation was determined upon, and the co-operation and assistance of my friends and *confrères*, Messrs. Hitchings and Spencer, were secured.

July 18.—The child was placed under chloroform, and in the lithotomy position; the grooved staff was then introduced into the bladder, which was so irritable that, notwithstanding that the child was fully under the influence of chloroform, the water was expelled with considerable force. The stone was distinctly struck and sounded by all of us. The lateral incision within the usual boundaries was made, the bladder opened, the finger introduced, and the staff withdrawn. The stone was found under the symphysis pubis, and extracted. The stone weighed sixty-five grains, the outer coating being phosphate of lime, the inner portion oxalic.

19th.—The patient has eaten and slept well. The water has passed chiefly through the wound, but slightly through the penis; there has been no pain in passing it.

20th.—Progress favourable. A larger proportion of water has passed by the penis than yesterday. No sign of inflammation or fever. Since the operation the child has laid in bed with a little oakum under him to catch the water that dribbles; but none has dribbled since yesterday, the child having had considerable power in retaining for a period since the first day of the operation.

21st.—Progressing favourably. Most of the water has passed by the penis, without pain.

22nd.—No water has passed by the wound since yesterday. The patient is cheerful, and will not stay in bed, but jumps up when no one is with him, and runs about the room.

25th.—Progressing favourably. The wound is healing kindly, and no water has passed by it since the 22nd. The mother has expressed a wish to take him home to-day, and I have given permission.

August 1.—Wound entirely healed. The child has no pain in passing water, is constantly running about, and is never seen to pull at his penis.

Stone is extremely rare in New Zealand. I believe only one case has been previously observed; that was in South sometimes called "Middle," Island. (a) This child was born in Hawkes Bay, but a portion of his uterine existence was passed in England and on board an emigrant ship. The parents came from Hampshire, which, unlike Derbyshire and Norfolk, is not one of the counties noted for stone. The water used by the parents is rain, collected in iron tanks, which must be as free from lime as water can be. The food that is eaten out here by the people of the class to which this child belongs—the labouring—is most unsuitable and injudicious. Meat being so much cheaper and wages higher out here, the immigrants gorge themselves (I can use no other expression) with animal food, partaking of it four times a day, and sometimes oftener, and give it to their children in the same proportion, and this often with little, if any, vegetables except bread and occasionally potatoes. Were this diet to be held accountable for the presence of the stone, vesical calculus would be more common out here than it is. It seems quite a matter of speculation as to what cause the origin of the stone may be attributed, but its presence was most assuredly a fact.

Napier, Hawkes Bay, New Zealand.

MEDICAL PRESENTATIONS.—We have to record two presentations which have recently been made to medical officers. Dr. James Adam, who has resigned his appointment as Medical Superintendent of the Caterham Asylum for the more lucrative post of Superintendent of the Crichton Royal Institution and Southern Counties Asylum at Dumfries, was presented by the members of the medical staff, past and present, the matron, and other officers and *employés*, with two cases containing silver fish- and dessert-knives and forks, etc., as a token of their esteem and regard. In the second case, Surgeon-Major Allen, of the 3rd Royal Lancashire Militia, was presented with a handsome silver goblet on his retirement after twenty-two years' service with the regiment, the same having been subscribed for by the permanent staff, past and present, the inscription recording that it had been presented "in recognition of attention and kindness bestowed."

(a) I have seen in the Hospital here a case, in a man, of disease of the kidneys and bladder, small phosphatic calculi being passed at frequent intervals; but this can scarcely be considered as stone in the bladder from a surgical point of view.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. THOMAS'S HOSPITAL.

CASE OF CEREBELLAR AND CEREBRAL TUMOUR, WITH HYDROCEPHALUS.

(Under the care of Dr. BRISTOWE.)

[FOR these notes we are indebted to Dr. W. B. Hadden, Medical Registrar.]

Alfred T., aged four years, was admitted into the hospital on December 30, 1878. It was stated that until about three months before that date he had been a healthy, intelligent child. He then had measles and whooping-cough, and had fits, followed by sickness, about once a day. Two months before admission the fits became more frequent, and his mother noticed that there was some strabismus of the right eye. Since the attack of measles he had complained of pain in the back of the head.

On admission, patient was suffering from almost total blindness. The pupils were equally dilated and altogether insensible to light. There was apparently almost complete loss of power in the lower extremities, and patient could not be got to stand or walk. Sensation and reflex action seemed unimpaired. There was also slight loss of power and of co-ordination in the upper extremities—more marked on the left side,—but the loss of co-ordination might perhaps be due to the blindness. He suffered from occasional attacks of pain in the head, which seemed to be referred to the occipital region. When lifted up he screamed and put his hand to the back of his head. Speech was indistinct and slow, the words being drawled out. The lungs and heart presented nothing abnormal. The tongue was clean, appetite good, temperature normal, bowels somewhat constipated.

January 3, 1879.—Patient had a fit this morning, but otherwise has not varied in his appearance since admission. After the fit he was very pale, but answered questions rationally. His urine is passed in bed.

17th.—Patient had a fit last night; it began with crying of a hysterical nature; then the arms and legs became rigid; the arms were next raised above the head, where they remained perfectly rigid for a few seconds. The left arm then became supple, and could be returned to the side. The right arm remained fixed, and some force had to be used to replace it. The raising of the arms was repeated three or four times. The legs remained straight, and the toes were pointed during the whole fit. The child was unconscious for a quarter of an hour. The only other points observed since last note are—that there has been incontinence of urine and fæces, the temperature has remained normal or subnormal, and there have been occasional attacks of sharp pain referred to the back of the head.

22nd.—There was another fit last night, which was unattended with any movements of the limbs beyond a turning-in of the thumbs; it commenced with screaming, and lasted about two minutes.

23rd.—To-day Mr. Nettleship examined the child's eyes, and reports that he thinks there is some perception of light with the right eye, as patient follows the mirror with it, and the pupil acts fairly to light. The left pupil also acts irregularly. Examined by the ophthalmoscope, the late stage of optic neuritis ("woolly discs"), passing into atrophy, was made out. There were no hæmorrhages, and the swelling was not excessive.

February 4.—The condition remains about the same, but he has had no convulsive attacks lately. He has had, however, fits of screaming.

11th.—Patient has had several fits since last note; he had one this morning lasting for about fifteen minutes. The legs were stiff and extended, the right arm was stiff, and there was twitching of the eyes and eyelids.

21st.—He has had no fits lately, but has complained of headache. There is not so much power in the left hand as there was.

March 4.—There have been no more fits. It has been noticed that when asleep the left eye is not quite closed.

April 9.—All yesterday the child was very drowsy and would not speak. He had great difficulty in swallowing, and

the breathing was stertorous. There was no fit or loss of consciousness, but there was great rigidity of body and limbs. To-day he is less stupid, but can only be roused with a little difficulty. The breathing and swallowing are improved. The pupils contract under the influence of light. There is no appearance of there being any power of vision.

15th.—There has been a good deal of twitching of the hands lately, but no fits and no difficulty in swallowing or breathing.

19th.—There is often a general flushing of the body; the left leg becomes rigid at times.

28th.—Patient grows weaker, and cannot take solid food without apparently choking. He does not speak easily.

May 8.—He seems easier, and does not cry so much as formerly, but is very quiet and does not speak. He cannot touch his nose with either hand when told to do so.

12th.—The right arm is very rigid to-day, the left less so than usual. He would not take his food this morning. He lies very still, with the eyes turned downwards.

25th.—He remains about the same; the hands seem livid, and there is a doubtful slight internal squint of left eye. He shuts the right eye more tightly than the left.

27th.—The tongue is somewhat furred, the hands are cold, and the face is much thinner than when he came into the hospital. The cranium has increased in size.

June 11.—He gets thinner, takes food when it is put into his mouth, but is more or less unconscious. Several vesicles have appeared on his cheek and forehead, and one larger than the others on the lower jaw.

28th.—The vesicles mentioned above have become pustular and scabbed. To-day there is a small pustule appearing on the lower border of the left cornea. Patient has a pale, waxy look, and is exceedingly emaciated. His general condition does not improve.

July 2.—About 1 a.m. to-day he had a severe attack of vomiting, lasting about ten minutes, during which time there was stertorous breathing and apparently complete coma. There has been no vomiting since, and he seems in his usual state this morning.

14th.—There is great constipation for days now unless relieved by enemata, etc. He passes water only once in twenty-four hours. He moans occasionally, but cannot speak, although he seems sensible when touched. There is great prolapse of the iris of the left eye proceeding from ulcer already referred to, and there is now a commencing ulcer in the right eye.

August 6.—Patient died to-day. The emaciation has been progressing, and for the last three or four days fæces have passed by the urethra, and once some clotted blood and mucus. Before death the circumference of the head, from occipital protuberance to root of nose, was twenty-two inches and three-quarters; the sutures and fontanelles were open.

Post-mortem Examination.—The body is extremely emaciated, the cheek-bones prominent, the head very large, and fontanelles slightly open. On opening the thorax, the heart is found to be healthy; weighs two ounces. The lungs are collapsed at the dependent parts and are pale, but otherwise normal; weigh together four ounces and a half. There are no caseous glands to be found. The abdomen is retracted. The liver and spleen seem normal. There are traces of pyelitis in the pelves of both kidneys, and there are also present some dark yellow concretions. The intestines are healthy, and the mesenteric glands natural. The bladder is much thickened, there is some extravasation into mucous membrane, and bloody fluid exuding from the penis. There is no ulceration of rectum, as was suspected during life. On removing the calvarium there is no arachnoid fluid apparent; the convolutions of the cerebrum are greatly flattened, and its substance is soft. The ventricles are filled and greatly distended with about two pints of perfectly clear watery fluid. The left lobe of the cerebellum is almost entirely occupied by a large firm tumour about the size of a Tangerine orange. The superficial remains of the cerebellum over the tumour are greatly softened and adherent to the tentorium. The tumour, on section, consists of firm, yellowish-green, semi-transparent matter, arranged in closely aggregated concentric layers of irregular outline. The right lobe of the cerebellum is healthy; the pons and medulla are pressed on and somewhat softened. Another small tumour is present in the grey matter over the orbital surface of the right frontal lobe, evidently tubercular. The skull sutures are movable on each other pretty freely.

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Medical Times and Gazette.

SATURDAY, DECEMBER 27, 1879.

ANNUS MEDICUS 1879.

THE year 1879 will be remembered as, till near its close, one of continued and increasing depression in commerce and trade; and, in consequence, of widely spread narrowness of means, anxiety, and actual distress; and as a year of remarkably prolonged and continuous cold, wet, and sunless weather. The Registrar-General's returns for the year, so far as they have been published, contain proofs of the great depression of trade that prevailed throughout the country during the first and second quarters of the year. During the winter quarter the mean marriage-rate was 2 per 1000 below that of the ten previous winter quarters, and was the lowest that had been observed in that quarter since 1842; while in the spring quarter—April, May, and June—it was 2 per 1000 below the average rate in the corresponding period of the forty years 1838-77, and was the lowest on record for the second quarter of the year. Pauperism increased during, at any rate, the first, second, and third quarters of the year; and during the summer quarter the total number of paupers relieved in England and Wales exceeded that in the third quarter of 1878 by 46,313, or 7.0 per cent. The average proportion of the population in receipt of indoor or outdoor relief during the quarter was equal to 28.0 per 1000, against 26.5 in the corresponding period of 1878; but things have been, not long ago, much worse in this respect, for in the summer quarter of 1870 the proportion of paupers was 41.2 per 1000 of the whole population. The severity of the winter and spring will be well remembered. The mean temperature, at Greenwich, of the eight months ending with June was 41.65°, and was lower than in any corresponding period since 1813-14. The mean of the spring quarter of the year was 2.8 below the average for the corresponding period in 108 years; and so low a mean temperature had not been recorded in the second quarter of any year since 1837. July again was very cold and sunless; the average deficiency of temperature during

the first twenty-seven days of the month being equal to 5°; and with few exceptions the weather continued cold, wet, and sunless during the last two months of the quarter. In the first half of the year there were only 471 hours of sunshine registered, while in the corresponding period of 1878 the hours of sunshine were 643. The deficiency occurred almost entirely in the second quarter; as the 133 hours of sunshine recorded in the first quarter of this year were only about seven hours less than the number recorded in the first quarter of 1878; while the second quarter of 1878 had a total of 503 hours of sunshine, and the same period of the present year only 353. June was, in 1878, called a sunless month, but it had 181 hours of sunshine in four weeks, and the corresponding four weeks of 1879 had not quite 119 hours. During the third quarter the number of hours of bright sunshine recorded was 354.9, against 441.4 and 451.4 in the corresponding periods of 1877 and 1878. The mean temperature was below the average in each month of the quarter; and that of the whole quarter was 1.6° below the average for the corresponding period in 108 years. The rainfall, measured at Greenwich in the first half of the year, amounted to a fraction over 17 inches; and in the four weeks ending June 28, 4½ inches of rain fell. In the third quarter also the rainfall was remarkable both for frequency and for amount. At Greenwich 11.75 inches were measured on fifty-three of the ninety-two days of the quarter, exceeding the average in sixty-four years by 4.4 inches. The fall exceeded the average in each month; and the largest excess occurred in August. During the first nine months of the year the rainfall at Greenwich amounted to 29 inches, and exceeded the average in sixty-four years by 10.9 inches.

The mortality returns, however, have not been unfavourable; and, even for the winter and spring quarters, were less unfavourable than seemed probable, looking at the severity of the weather. The death-rate for the winter quarter—25.2 per 1000—was markedly above that of the first quarters of 1877 and 1878; but it was only 0.4 per 1000 above the average rate in the first quarters for the forty years 1858-77. The fatality from diseases of the respiratory organs was in excess throughout the spring quarter, but the death-rate from the principal zymotic diseases was below the average; and the whole death-rate in England and Wales for the quarter was slightly below the average of the ten preceding corresponding quarters. Low temperature and rain always exercise a favourable effect upon the public health during the summer; and the mean rate of mortality for the three months, July, August, and September, was lower than that in the cold and wet summer of 1860, which had hitherto been the lowest on record since the commencement of civil registration in 1837. The annual rate for England and Wales was 16.4 per 1000 of the estimated population, which was no less than 3.8 below the average rate in the corresponding summer quarters of the ten years 1869-78. In the principal urban population the death-rate was equal to 17.5 per 1000, and in the remaining or rural population it did not exceed 14.7: the urban rate was 5.2, and the rural rate 2.2 below the average rates in the corresponding period of the ten preceding years. The large relative decrease of urban mortality was due to the small fatality of infantile summer diarrhoea, an essentially urban disease. During the present quarter the death-rate has of course risen very much, and especially since the severe winter weather set in. The rate for England and Wales cannot be recorded here, but the annual rate of mortality per 1000 for Greater London rose from 18.7 in the beginning of October to 29.0 in the middle of the present month.

During the short session of Parliament held in December last year it was authoritatively stated that Government intended again to introduce, and hoped to pass, in the next

session, a Medical Acts Amendment Bill. Parliament met early in February this year, and on the 14th a question was put to the Government on the character of the proposed Bill. In reply it was stated that no communication had been received from the General Medical Council with regard to the working and constitution of that body, but Government thought that, without prejudice to that subject, the questions of medical education, foreign degrees and diplomas, the education of midwives, etc., might be proceeded with; and that the Government themselves proposed to institute an inquiry into the constitution of the Medical Council. On February 25 the Duke of Richmond laid the Government Bill to amend the Medical Acts on the table in the House of Lords. The Bill was—*minus*, of course, the dental section—almost the Bill of last year, in its last state, with one important exception: the Marquis of Ripon's clause, for making the qualifying certificate of a Conjoint Examining Board the only absolute and indispensable condition of admittance, in the future, to the Medical Register, had been altered. The renewed Bill proposed to enact that a person who had obtained the certificate of a Conjoint Board should be entitled to ask for the diploma of any of the medical corporations co-operating to form that Board, and, on obtaining such diploma, should be entitled to registration. But should such diploma, or diplomas, be refused, then a person might be admitted to the Register on only the certificate of a Conjoint Board. The Marquis of Ripon approved of the Bill, and approved also of the expressed intention of the Government to submit the question of the constitution of the Medical Council to a Parliamentary Committee. The Bill was read a second time on March 11 without any opposition; the Marquis of Ripon only intimating that he thought that if any conjoint system of examination was to be enforced, equality of fees for examination should be secured as well as equality of examination; but reserving any amendments he might think fit to propose till the Bill should be in committee. The Committee was appointed for March 20. But on the 12th of the same month the motion for the second reading of Dr. Lush's Medical Acts Amendment Bill came on in the House of Commons, and after a prolonged and able discussion, Lord George Hamilton, on the part of the Government, advised Dr. Lush to agree to the adjournment of the debate, as he was to move for a Select Committee of the House on the constitution of the Medical Council; and he undertook that the Government Bill should not be proceeded with in the House of Commons till the Committee had reported. Lord George declined to entertain the proposal, made in the course of the debate, to refer all the Medical Bills before Parliament to a committee, on the ground that the effect would be to prevent legislation on the subject for the present year, and therefore, probably, for the present Parliament. When the Government Bill was considered in Committee in the House of Lords, several peers took part in the discussion, instead of leaving the matter to the Lord President and an ex-Lord President of the Council, as had been done on the occasions of the first and second readings. An amendment to give the Medical Council the power of fixing the fees to be paid to each of the Examining Boards, with the object of securing the equality of fees, was not accepted by the Duke of Richmond, and, on his promising to consider the question raised by it, was not pressed; but when the Bill, as amended, was reported, words were inserted providing that the fees to be paid on admission to the examinations of a Board shall be of the same amount in every part of the United Kingdom. An important amendment, proposed by Lord Emly and supported by the Marquis of Ripon, requiring the Medical Council to make the examination rules for securing uniformity in the standard examinations of the Conjoint Boards, was accepted. Some

other minor amendments were also made, and the clause relating to midwives was struck out. On March 31 the Bill was read a third time and passed. But its further progress was completely stopped at the door of the Lower House. Four notices of amendments to Lord George Hamilton's notice of motion for a Select Committee had been given, chiefly with the object of enlarging the scope of the reference to be made to the Committee; and the consequence was, that he was not able to get an opportunity of moving for the appointment of his Committee. But at last, on May 12, the Government gave way, and Lord George stated that if the gentlemen who had amendments to the Medical Bills would withdraw them, so as to allow the Bills to be read a second time, he would move that they all be referred to the Select Committee. The Committee was not appointed till the second week in June; but when appointed they lost no time in getting to work. The Bills referred to them were four in number, and the subjects of the inquiry were, the working and constitution of the Medical Council, medical education, and medical examination. The Government Bill did not touch the first of those subjects at all. Mr. Arthur Mills' Bill proposed to add six direct representatives of the registered practitioners of the United Kingdom to the Council, but did not meddle with the Crown nominees, or the representatives of the Universities and the Corporations, excepting by bracketing the University of St. Andrews with that of Edinburgh, and joining that of Aberdeen with Glasgow. Dr. Lush's Bill provided a Council of nineteen members only; reduced the Crown nominees to three; carried out further the principle of joining together the Universities and the Corporations for the purposes of representation; and provided for adding four representatives of the profession. These three Bills all provided for the compulsory establishment of Conjoint Examining Boards. Mr. Errington's Bill provided that a double qualification in medicine and in surgery should be required for registration, but left all existing examinations alone; and it had for its main object to add to them another examination to be passed by candidates for all Civil Service appointments. Considering how few of the members of the House of Commons can be supposed to have any real knowledge of the subjects to be inquired into, the Committee appointed was as good a one as could be expected: it consisted of Mr. W. E. Forster as chairman, Dr. Cameron, Sir Trevor Lawrence, Mr. Mitchell Henry, Dr. Lush, Dr. Lyon Playfair, Lord George Hamilton, Mr. Dalrymple, Mr. Errington, Mr. Goldney, Mr. Heygate, Mr. Arthur Mills, Mr. Wheelhouse, Mr. David Plunket, Mr. Serjeant Simon, Mr. O'Leary, and Mr. Maitland. They met first on June 16, and, though unable before the end of the session to bring their inquiry to a close, they accumulated a considerable amount of information—which they may digest at their leisure before Parliament meets again. They examined Dr. Acland, the President of the Medical Council, Mr. Simon, Dr. Quain, Dr. Waters, Dr. Glover, Sir James Paget, Sir Dominic Corrigan, Professor Turner, Rev. Dr. Haughton, Mr. Ernest Hart, and Dr. Andrew Wood. Of these, eight, it will be observed, are members of the Medical Council, of whom five, with the three outsiders who were examined, were in favour of some change in the constitution of the Council. But our object here is to write history, not to criticise or analyse the opinions and evidence gathered by the Committee; and we must be content to refer our readers to the reports and summaries of the examinations of the witnesses that appeared week by week in our pages while the Committee was sitting.

Among the Bills especially of interest from the medical point of view that became law during the session was the Habitual Drunkards Bill. It is a permissive Bill, and makes the restraint of a drunkard dependent upon his own option and act. Its powers are, moreover, granted for a

term of ten years only; and we have not yet heard of its having encouraged the establishment of any "retreats." But it is a step in the right direction, and was probably as strong a measure as could have been obtained from the present Parliament. An Act was passed amending and strengthening the Adulteration of Food and Drugs Act. It provides that in any prosecution under the Act it shall be no defence to allege that the purchaser, having bought only for analysis, was not prejudiced by the sale; nor that the article in question, though defective in nature or in substance or in quality, was not defective in all three respects; it brings within the provisions of the principal Act any street or open place of public resort; it provides that spirits shall not be lowered by admixture with water below 25° under proof for brandy, whisky, or rum, nor below 35° for gin; and it enacts that any medical officer of health, inspector, or constable, under the direction of the local authority, may obtain for analysis at the place of delivery any sample of any milk in course of delivery to the purchaser or consignee of such milk. The last-named provision seems clear enough, but one of the London police magistrates has already raised a difficulty as to its practical application by showing a readiness to admit that it may, in the case of a prosecution for refusing to supply a sample of milk in course of delivery, be a valid excuse to reply that there was "none to spare." An Act was also passed amending the Artisans' and Labourers' Dwellings Act, by providing that it shall not be compulsory, in carrying out an improvement scheme, to rebuild houses for the labouring classes in the same area, if equally convenient accommodation can be found elsewhere for those displaced; and the Act contains useful provisions for the assessment of the compensation to be paid under improvement schemes. Some amendments were made in "Torrens' Act" also; one being that an owner, upon whom a notice has been served to execute any works or demolish any premises, may now require the authority to purchase the premises within three months. Mr. Fawcett, at the end of the session, called the attention of the Government to the water-supply of the metropolis; and the Home Secretary, in reply, admitted the necessity of improving the mode of supply and the quality of the water, and of lessening the cost of production; and promised that before next session a full inquiry should be made into the whole subject, including the question whether the water companies should be required to surrender their powers to a central authority to be appointed by the Government. During the session several—we believe ten—sanitary authorities applied to Parliament for power to secure the notification of cases of infectious diseases, by means of clauses introduced into local Bills. In two instances—viz., as regards Exeter and South Shields—the Bills were not proceeded with; but the local Bills of the Sanitary Authorities for Llandudno, Warrington, Blackpool, Norwich, Edinburgh, Rotherham, Leicester, and Derby were passed with the clauses providing for the notification of infectious diseases unaltered. By six of the Acts the duty of reporting the existence of the disease is cast upon both the occupier or other person in charge of the building or room in which the disease occurs, and the medical attendant, as is the case by the Bolton Act, which was one of the first obtained. The Norwich Act follows the example of that of Nottingham, and requires only one notification: the medical attendant is to give a certificate of the existence of the disease to the occupier or person in charge, and the latter is to deliver it to the sanitary authority; and if there is no medical attendant, notice is to be given by the occupier or person in charge, or by the head of the patient's family, or by the patient. While by the Edinburgh Act the medical attendant is to report to the medical officer of health, and no provision at all is made for

the notification of cases unattended by a medical practitioner. In all these Acts, as well as in the local Acts of Huddersfield, Bolton, Burton-on-Trent, Nottingham, and Jarrow, it is provided that the medical attendant be paid for the required certificate, the fee being in almost all instances half a crown for each certificate; but the Edinburgh Act is distinguished by containing the invidious provision that the fee shall be payable only when the diagnosis of the medical attendant has been found correct "on inquiry of the medical officer of health." The Acts differ also in the description or list of the diseases to be reported.

The General Medical Council held two sessions during the year. In July last year the Council resolved, without one dissentient vote, "That the constitution of this Council needs revision, and that the Council do affirm and represent to Government that at its first meeting after the present session of Parliament it will consider what modifications of its constitution are demanded and required, and will report to the Government accordingly." And it was also resolved that the Executive Committee should prepare for the Council, "before its next meeting," a report on its constitution and working, and on the changes, if any, which, in the opinion of the Committee, would render the Council "more efficient for the duties which it has or will have to discharge." It will be remembered that the Council met again in October last, in order to transact business in connexion with the Dentists Act, and that an attempt was then made to bring on the consideration of the revision of its constitution; but the Executive Committee had not reported upon the subject, and the Council decided by a large majority that a discussion upon it would be "premature, inopportune, and not in accord with the spirit" of the resolutions passed in July. When, during the brief session of Parliament in December, a statement was made, on the part of the Government, that a Medical Acts Amendment Bill would be introduced this year, it was stated that the Act would not deal with the constitution of the Medical Council because the Government considered they had not yet sufficient knowledge of the subject to justify their meddling with it. But notwithstanding this, and the general expectation that the Council would, as a matter of course, meet for the fulfilment of the pledge given by the July resolutions, and for the information of the Government, before Parliament again met, the Council was not summoned to meet till March 18, when Parliament had been sitting for a month, and the Government had announced that they would themselves institute an inquiry into the subject of the constitution of the Council. The report of the Executive Committee on the constitution and working of the Council was presented as soon as the Council met, and was entered on the Minutes. It was by far too bulky a document to be published in our pages, but an analysis of its contents was given at pages 320 and 352 of our first volume for the present year. The report itself first dealt with the constitution of the Council; and pointed out that, in the opinion of the Executive Committee, its electoral basis embraced the profession at large, and it had shown itself willing and able to discharge all its duties in a manner that had satisfied successive Governments, who had from time to time added to its duties, and had declined to accede to proposals for making any changes in its constitution. Next the Committee examined the work of the Council, in the formation, publication, and maintenance of the Register, and of the National Pharmacopœia; by its visitations of examinations; in giving sanction and direction to the union of authorities in conducting examinations; in the supervision of medical education; in the exercise of its judicial powers; in carrying out the Dentists Act; and in "other duties." And on all these points they considered that the Council had done well; though no doubt, "as must happen, more or less, in all

deliberative assemblies," time had sometimes been wasted. As to the constitution of the Council, the Committee objected to every proposed change; and summed up with the statement that, "after a careful and deliberate consideration of the whole subject," they were of opinion "that a change in the constitution of the Council is not necessary for present duties, nor for other legitimate duties that can justly be considered as directly connected with medical education and registration." The report concluded with the suggestion that, should it seem expedient to grant the desire that some persons should be selected to represent exclusively the general body of registered practitioners, that object would be best accomplished by an increase of the number of Crown nominees. A memorandum, by Dr. Pitman and Sir James Paget, was added to the report, objecting to the issue of any report by the Executive Committee, on the ground that as the Government had decided to institute an inquiry into the subject dealt with, the Executive Committee should have recommended the Council to wait for that inquiry. And in a second memorandum Dr. Quain dissented entirely from the suggestion for the appointment of additional Crown nominees to represent the general body of registered practitioners, and expressed the opinion that it would have been more judicious to conclude the report with the recommendation proposed by Dr. Pitman and Sir James Paget in their memorandum. Attached to the report were appendices giving various documents that had been obtained by the Council to aid them in the task they had to perform, and to confirm their report. Of all these papers the most interesting was a collection of letters from Sir Thomas Watson, Sir George Burrows, Dr. Paget, and other former members of the Council, stating their views on the desirability, or the contrary, of the various proposed changes in the constitution of the Council. An analysis of these communications was given in our pages when the report was made public.

The first, second, third, and part of the fourth days of the session of the Council were occupied in discussing whether the Medical Acts Amendment Bill of the Government should be taken into consideration, and in considering it. The Lord President of the Council had informed the Council that he should be glad to receive any observations upon the Bill that they might, after consideration of the measure, have to make upon it. But Mr. Simon and Dr. Rolleston moved that the Bill had been thoroughly discussed last year, and that the Council, adhering to the views then expressed, did not think it requisite to submit any new observations. This was denounced as an attempt to stifle discussion, and was not acceptable to the majority of the Council; and, after some discussion, it was decided to consider the Bill so far as it differed from the recommendations made by the Council last year. This led to three days of fighting old questions over again, and of discussions ending in almost nothing. A resolution of Dr. Quain's, recommending a new amendment of the clause in the Bill relating to the registration of the holders of foreign and colonial degrees, was agreed to in committee, and rejected the next day in council; and nothing that was carried regarding the Bill need be recorded here, as it is certain that the whole question of the amendment of the Medical Act will have to be reopened when the subject is again brought before the Legislature by the present or any other Government. The consideration of the Bill itself having been concluded, a great deal of time was consumed by a prolonged debate excited by a resolution, moved by Dr. Andrew Wood, to the effect that the other questions of medical reform, besides that of the constitution and working of the Medical Council, should be referred by the Government to a Select Committee of the House of Commons, for investigation and report, previous to further medical legislation. This was met by an amendment,

moved by Dr. Scott Orr and Dr. Humphry, stating that the subjects dealt with by the Bill then before Parliament had been sufficiently discussed, that the delay and uncertainty respecting legislation upon them were injurious, and that the reference of the Bill to a Select Committee was not necessary. The debate opened up again the question of the advisability of Conjoint Examining Boards, and was marked by some very able speeches; but it cannot be credited with having altered any of the already well-known opinions of any of the members of the Council; and, at the end of the fifth day of the session, the amendment was carried by fourteen votes to eight. The minority was composed of all the representatives of the Scotch authorities, and the Crown nominee for Scotland, with two of the Irish representatives; and two members—the President and Dr. Quain—did not vote. On the sixth day of the session the Council decided, by a large majority, to proceed to the consideration of the report of the Executive Committee on the constitution and working of the Council; and after considerable discussion, and the rejection of an amendment, carried, by seventeen votes to four, a resolution to the effect that the principle of the election of members of the Council by "the direct representation of the whole profession" does not afford sufficient guarantee for the selection of the persons best qualified to perform the duties which devolve, or are likely to devolve, upon the Council; and that the Council could not, therefore, recommend the adoption of such a principle. After this the consideration of various motions and amendments relating to the subject of the constitution of the Council occupied the Council for some hours, but the end of it all was that a resolution—"That the consideration of the report of the Executive Committee on the constitution and working of the Council be now closed"—was carried at the end of the seventh day of the session. It was argued, and by the acceptance of the resolution admitted, that, so far as the Council was concerned, the question of the desirability of "direct representation" had been decided in the negative; that that question constituted nine-tenths of the matter in dispute; that the intention of the Government to submit the inquiry into the constitution of the Council to a Committee of the House of Commons rendered any further discussion of the subject by the Council useless and futile, as it was very improbable that any other resolution upon it, besides that already come to, would be carried by such a majority as would carry any weight; and that therefore any further discussion of the report would be a waste of time." The last day of the session was almost entirely devoted to dental business.

The Council met again on July 17, and sat for three days. The chief, if not the only, reason for the meeting was the election of a President, as Dr. Acland's term of office expired on the 18th. On that day, after a few words of graceful acknowledgment of the unceasing kindness and consideration that he had received from every member of the Council, Dr. Acland was re-elected for a second term of five years. A considerable amount of time was given to the discussion of questions relating to education and registration. It was decided that the examination in the subject of "elementary mechanics of solids and fluids—meaning thereby mechanics, hydrostatics, pneumatics, and hydraulics," may be passed by students at either the preliminary or the first professional examination. A long, and now and then somewhat warm, debate was excited by a correspondence relating to some alleged irregularities in medical students' registration in Ireland; and an interesting discussion took place on the value of examinations as compared with that of certificates as proofs of education. It took some time for the Council to agree to the apparently very plain proposition that a man's name cannot remain on the Medical Register after he has been deprived of all his registrable qualifications.

It was resolved that "in all questionable cases, where persons whose names have been removed from the Register under Section 14 (of the Medical Act) seek restoration, it is desirable that the Executive Committee should without delay put themselves in communication with the medical authorities whence the qualifications were originally derived"; and some business was transacted in connexion with the Dentists Act.

The Royal College of Physicians again re-elected Dr. Risdon Bennett to the important and honourable office of President of the College for a year; the election of members of the College to the honour of its fellowship took place on April 24, when twelve members received that coveted distinction; and the Baly Medal of the College was awarded to Charles Darwin, F.R.S. The Harveian Oration was delivered by Dr. Wilks, who, taking for his text, as it were, Harvey's injunction to the College, "to study and search out the secrets of nature by way of experiment," exhorted the Fellows, practising physicians as Harvey was, to occupy themselves, as he did, with the investigation of nature. The Gulstonian Lectures were given by Professor Curnow, of King's College, on the Lymphatic System and its Diseases; the Croonian by Dr. W. H. Stone, on Some Applications of Physics to Medicine; and the Lumleian by Dr. J. S. Bristowe, on the Pathological Relations of the Voice and Speech. The Harveian Orator next year will be Dr. J. W. Ogle; and the Gulstonian, Croonian, and Lumleian lectures will be delivered by Dr. Gowers, Dr. Cayley, and Dr. W. Roberts of Manchester. The College had before them the report to the co-operating medical authorities by the Committee of Reference on the Conjoint Examination in England; and long discussions were excited by the requirements relative to the instruction in and the study of midwifery and the diseases of women, these being held by many of the Fellows to be very inefficient; and by a note regarding vivisection. But in the end the report was approved, and passed without alteration, one of the main arguments employed against any amendment being that it might seriously delay the general acceptance of the scheme, and even help to hinder the passing of the Government Medical Bill. At the end of February an extraordinary meeting of the College was held to consider what steps should be taken by the College, in the interests of the public, in view of the reported existence of the plague in the East of Europe. The President stated that, after the College had been summoned, he had received a letter from the Government requesting the College to nominate a fit and proper person to be sent out to investigate the nature of the plague; and that he had had an interview with the Lord President of the Privy Council on the subject. The College nominated a committee to obtain information and to report to the College on the nature of the disease called the plague, then raging in the East, and on the best means for its prevention and treatment; and further to nominate proper persons to proceed to the East for the purpose of personally investigating the disease. The College were very decidedly of opinion that it would be a great mistake to send out only one person to undertake the investigation. They held that a commission of at least three persons should go out for the purpose; but being anxious to adopt the most courteous method of expressing to the Lord President their opinion on the subject, resolved that the President should convey to the Lord President "their unanimous opinion that more than one member of the profession" should be named for the purpose of going out to investigate the nature of the plague. The result was that the College recommended, and the Government appointed, Dr. J. Frank Payne, and Surgeon-Major Colvill, of the Bombay Army, who had been resident at Bagdad and had seen plague, Medical Commissioners

to proceed to Astrakhan for the purpose of investigating the nature of the disease raging there, and said to be true plague. The Commissioners left England on March 11, and arrived at their destination on the Volga on April 1, when the epidemic to be inquired into had long ceased, and nearly all the other foreign commissioners and a great part of the Russian Commission had finished their investigations and left the district. They, however, did everything that could be done in such disadvantageous circumstances, and presented to the Government a very interesting and instructive report on the results of their visit to the plague-infected districts. These results tally very closely, naturally, with those arrived at by the German Commission, and which were given to our readers in Dr. Hirsch's lectures. None of the Commissioners from other countries were fortunate enough to see a case of plague; but the English Commissioners were particularly unfortunate in arriving so late on the scene, and in not being fully provided with all the information that had been previously obtained by the Russian authorities. They were, it may be supposed, between two stools—the College who nominated, and the Government that appointed and sent them out. In October a copy of the report of the Commissioners was sent, by direction of the Lord President of the Privy Council, "to be laid before the College of Physicians," but it was marked "confidential," and therefore the authorities of the College considered that it could not be placed in the reading-room for the information of any individual Fellow. We are not aware that the College Committee ever reported to the College on the plague.

The Hunterian Oration to the Royal College of Surgeons was delivered by Professor G. Murray Humphry, who very opportunely and happily used the occasion to speak of what are, in his opinion, the defects and dangers and the tendencies of the system of education of the present time; enlarging especially on the danger of over-teaching instead of educating, and of over-examining. The Jacksonian Prize of the College was awarded to Mr. Priestley Smith of Birmingham, for his essay on Glaucoma. At the annual meeting, for the election of Fellows into the Council of the College four vacancies had to be filled, occasioned by the death of Mr. Hilton, and the retirement, in the prescribed order, of Messrs. Le Gros Clark, T. Spencer Wells, and George Critchett. Of these three, one, Mr. Spencer Wells, stood for re-election, and Mr. Richard Barwell, Mr. Thomas Bryant, Professor John Wood, Mr. Henry Power, and Mr. Jonathan Hutchinson were also candidates. The three last-named Fellows and Mr. Spencer Wells had the honour of gaining the greatest number of votes, and were accordingly declared to have been elected. The report of the Committee of Reference on the regulations for conjoint examinations was presented to the Council, but the consideration of it was deferred till the fate of the Medical Bill should be decided, and it was not again brought forward. Late in the year Mr. Hancock moved for the appointment of a committee to consider and report on the arrangements necessary for instituting examinations in chemistry, materia medica, pharmacy, and midwifery, to be passed by all candidates for the fellowship and membership of the College not already qualified in these subjects; and on the practicability and desirability of bringing about a voluntary association of the Colleges of Physicians and Surgeons and the Society of Apothecaries for the establishment of a full conjoint examination. The Council rejected the last part of the motion, but agreed to the first part; and thus took an important step towards making the examination for the College diplomas include all the subjects of medical education. The scheme, presented to the Council in December last year, for modifying and enlarging the terms of the Erasmus

Wilson Trust has been formally embodied and carried out. The special object of the Trust is now "to promote the making of original researches in pathology by members of the Royal College of Surgeons, and the publication of the results of such researches by lectures to be delivered at the College." The memorandum issued by the College on the subject was published by us in June last (*Medical Times and Gazette*, vol. i., page 683, 1879). But perhaps the most important action of the Council in the whole year was the decision, come to in June, that anatomy and physiology should be separated as subjects for examination; and the decision was not arrived at a moment too soon. A growing and well-founded dissatisfaction with regard to the primary examinations, especially for the membership, but also in some degree for the fellowship, found vent, in January, in a meeting held in London, of the teachers of anatomy and physiology throughout England; and this resulted in a memorial, most courteously drawn up, addressed to the President, Vice-Presidents, and Council of the College, suggesting that separate examiners should be appointed in anatomy and physiology for the membership, and that separate papers containing a larger number of questions from which to select for answering should be set on those subjects; that for the fellowship there should be separate examiners in comparative anatomy as well as on the former subjects, and that the extent of the knowledge to be required in comparative anatomy should be distinctly defined. And the teachers asked the Council to receive a deputation on the subject. In May the proposed deputation was received by the Committee on Examinations of the College, and the chairman of the Committee promised that the suggestions contained in the memorial should have every consideration, as the authorities of the College were as anxious as the teachers could be that the examinations should be made as perfect as possible. It appeared that in the meanwhile the Committee on Examinations had had under consideration the propriety of making some changes in both the written and oral parts of the primary examinations; and at the meeting of the Council in June, a report was received from them, recommending the appointment of separate examiners in anatomy and physiology. The report was discussed at considerable length, some members of the Council being strongly opposed to the reform recommended; but it was finally decided, by fourteen votes to seven, "that anatomy and physiology be separated as subjects for examination, and that the next nomination for examiners be made on this principle." In accordance with that resolution, at the meeting of the Council on the 11th inst., Messrs. A. E. Durham, C. Heath, T. P. Pick, W. Rivington, and J. Wood were appointed Examiners in Anatomy; and Messrs. W. M. Baker, J. W. Hulke, H. Power, and T. B. Lowne Examiners in Physiology. A motion, made by Mr. Simon in October, for alteration in the rules relating to the formation of the Board of Examiners in Anatomy and Physiology, so as to admit of the appointment of persons who are not Fellows of the College, was rejected; and in December a motion made by Mr. Gay, to render members as well as Fellows eligible for these examinerships, also fell to the ground.

The Medical Societies of the Metropolis and the various Provincial Medical Societies have held busy and active sessions; and at some of them several of the papers and discussions have been unusually interesting and instructive.

At the Royal Medical and Chirurgical Society the special feature of the session was the debate, continued through three prolonged meetings, on the report of the Committee appointed at the close of 1875 "to examine into the relation existing between the diseases commonly known respectively as Membranous Croup and Diphtheria." The report was

presented at the end of October, last year; and was this year printed and circulated in order that it might be studied for some time before the debate upon it. This was necessary on account of the length and elaborate character of the report; and was well deserved, for it is a highly valuable one—bringing no new knowledge, indeed, but presenting, as Sir William Jenner observed, "an able reflex of prevalent opinion." It may be said to fairly represent all that we know on the subject dealt with, and to point out where we are ignorant. A great number of our most eminent and best known practitioners spoke during the debate; and it seems to us that the outcome of the report and the debate is, that it has yet to be proved whether or not diphtheria is a specific disease; that it is proved that membranous laryngitis does exist independently of diphtheritic contagion; that there is a great difference between membranous and non-membranous laryngitis; and that we have not yet discovered any criteria by which we can distinguish clinically between membranous laryngitis from diphtheritic infection and membranous laryngitis from other causes. With regard to the term "croup," the Committee recommended that it be "henceforth used as a clinical definition implying laryngeal obstruction occurring with febrile symptoms in children. Thus croup may be membranous or non-membranous, due to diphtheria or not so."

At the Pathological Society the special discussion of the year was on "Lardaceous Disease in relation to its Anatomical Distribution and Pathological Relations." It lasted through three evenings, and it may be said of this debate, as of that at the Medical and Chirurgical Society, that the chief gain by it was that it focussed into clear view all that is generally admitted to be true regarding lardaceous disease and its pathological relations, and suggested the direction of further researches into what is still doubtful or theoretical. It was admitted very generally, if not by everyone, that the lardaceous material is a nitrogenous or proteid body, with alliances to both fibrin and albumen, and is very deficient in potash as compared with healthy tissues; and as to the etiology of the disease, the whole discussion left our knowledge almost precisely what it was—that prolonged suppuration is by far the most common cause, and that syphilis is the only other proven cause. It was shown that the lardaceous material is subject to fatty metamorphosis, especially in the liver, and sometimes to calcareous changes; and, what is of greater interest and importance, cases were brought forward proving that organs which have been the seat of lardaceous change and greatly enlarged may regain their normal limits and apparently their normal structure. As to treatment, it was shown that the remedy in cases of the disease due to syphilis is the iodide of potassium in large doses over long periods of time; and that cod-liver oil, iron, quinine, and the influence of sea air have proved most serviceable in the cases due to suppuration. It may be added that the "lardaceous reaction with iodine" was dethroned from its position as an infallible test of the existence of lardaceous change; Dr. Dickinson himself allowing that it not seldom failed when there was other and indisputable evidence of the change, especially in very early and very late stages of the disease, and that many other albuminous bodies showed a similar, though less marked, staining after the application of iodine. One of the other meetings of the Society was specially distinguished by two very important and interesting papers: one by Professor Parrot, of Paris, on the Osseous Lesions of Hereditary Syphilis; and the other by Mr. T. Watson Cheyne, on the occurrence of Organisms under Antiseptic Dressings.

The Obstetrical Society spent three evenings very usefully in discussing the subject of "The Use of the Forceps in Linger-ing Labour." The debate, which excited great interest, led

many eminent obstetricians and experienced practitioners to state their views and experience; and some of the speaking was very good. But we cannot here attempt to summarise the outcome of the debate, excepting so far as to say that it put both sides of the question discussed fully and clearly before the profession; and that the very important statistics of the practice of Dr. George Johnston, who used the forceps very often (once in ten cases), and early, in some eight thousand deliveries, extending over the period of seven years when he was Master of the Rotunda Hospital, Dublin, showed, when compared with the practice of another Master of the same Hospital, Dr. Collins, who used the forceps too seldom (only once in 608 times), and the perforator too often, a more than doubled maternal mortality, and a probably increased infant mortality.

In no department of Medicine or Surgery have greater advances been made during the past year than in that of therapeutics—using the term in its widest application, namely, to treatment of every kind. It would be vain of us to attempt to furnish here more than a simple record of some of the more important remedies that have been introduced, and of the improvements that have been made in the employment of older measures.

Of new remedies, which have either been introduced or come prominently forward during the year, the following may be noted. Fuchsin, or hydrochloride of rosanilin, has been employed with benefit in albuminuria, both acute and chronic. Quebracho has been found to relieve dyspnoea in diseases of the lungs, apparently by a direct action upon the blood, as described by us at page 35, July 12. Pyrogallie acid in the form of ointment appears to have cured cases of psoriasis and lupus. Chaulmoogra oil and gurjun oil are said to have benefited leprosy in some instances; but the caution given by Dr. Robert Liveing in our pages, on August 23, against a hasty conclusion respecting the value of the former or of any other drug in leprosy, should not be disregarded. Chrysophanic acid has proved a trustworthy parasiticide in skin-diseases, and has also been used in psoriasis. The oil of the leaves of one or more species of eucalyptus is said to have been successful in the form of inhalation in pharyngeal diphtheria (page 214, August 23). Tania and scorbutus—diseases sufficiently apart—have been said by Inspector-General Nicholson to be amenable to treatment by agrimony—a plant of which we hope to hear more. Sclerotic acid is now believed to be certainly the active principle of ergot, and it and its sodium salt promise to replace the latter in general practice (December 6, page 642). Meanwhile the subcutaneous method of administering these powerful hæmostatics as well as other remedies is steadily becoming more general. Borocitrate of magnesia has been recommended as a solvent of urinary calculi (page 616, November 29). An alkaloid called scillain has been extracted from scilla, and proves to possess physiological properties almost exactly the same as those of digitalin. Pituria is another new drug which has been found to be closely allied in some respects to tobacco. Euonymin, iridin, and other new hepatic stimulants, for the scientific investigation of the action of which we owe so much to Professor Rutherford, have come into pretty general use, and given, on the whole, satisfaction.

Duboisin, the alkaloid obtained from the Australian tree *Duboisia myoporoides*, has been abundantly tried during the past twelve months in the class of cases where atropia has hitherto been employed. Thus it has been used with success to dilate the pupil, to stop the night-sweats of phthisis, and as an antidote in morphia-poisoning (in animals). Briefly, duboisin possesses the same properties as atropia, but is more powerful.

Jaborandi and its alkaloid pilocarpin have received great

attention both from the pharmacologist and from the practical physician. The drug has been used with apparent benefit in renal disease with albuminuria and dropsy, in the night-sweating of phthisis, in syphilis (in combination with the mercurial bath), in acute pleuro-pneumonia, in malarial fevers, in mumps, and as a stimulant to the growth of the hair. As a uterine stimulant it has been tried with doubtful success both in premature and in natural labour; and further experience is required of the drug in this direction. It seems to be of some value in chronic eczema as a stimulant of the skin; and a case has been recorded (page 664, June 14) in which it relieved obstinate hiccup.

Coto-bark, cotoïn, and paracotoïn have proved useful in the diarrhoea of phthisis and of exophthalmic goitre, and in the night-sweating of phthisis.

Arsenic, it has been found, reduces the number of the red and white corpuscles when given internally in medicinal doses. Chlorate of potash has also been shown to act upon the blood-corpuscles; and because this effect has led to fatal results in some cases where enormous doses of the drug have been given, the startling suggestion has been made to discontinue the administration of it to children! (page 641, December 6.)

Iodoform continues to be used extensively both externally and internally, and numerous papers have appeared during the year upon the value of the drug in syphilis—locally and generally; in scrofulous glands, whether simply enlarged or “open”; and even in acute hydrocephalus—by inunction in the nape of the neck. On the Continent it has been lauded as a local anæsthetic in gouty, rheumatic, and neuralgic pains, when applied locally in the form of a collodion or ointment. Its physiological action has meanwhile been investigated by various therapeutists, with conflicting results as regards the exact combination of the iodine or of the iodoform in the blood.

Other remedies and applications that may be mentioned are the use of ergot in acute pneumonia; of salicylate of iron in anæmia, erysipelas, nephritis, and diphtheria; and of colchicin subcutaneously in “rheumatism.” A fact for the therapeutist of the greatest practical interest is the discovery that iron salts are excreted mainly by the bowel (page 324, March 22).

No class of drugs has been more thoroughly investigated lately than those that act upon the function of perspiration, namely, the diaphoretics or sweat-stimulants, and the anhidrotics or sweat-depressants. And in this connexion it may be noticed how the sister sciences of physiology and pharmacology continue to be mutually advanced. Very remarkable discoveries have been made during the last few years in the physiology of the perspiratory centres of the spinal cord and brain, the sweat-tracts, and the nerves of perspiration (see page 486, October 25). Most of these discoveries have been made by the administration of drugs. It has been found that acetate of ammonia, tobacco, sulphate of physostigmin, and picrotoxin (*cocculus indicus*) cause sweating by their action upon special centres in the brain or cord, and that heat and an excess of carbonic acid in the blood (the asphyxial condition) act, in part at least, in the same way; whilst pilocarpin (*jaboran*) stimulates a peripheral sweat-mechanism, and muscarin (*mushroom*) the secreting cells. Even greater in therapeutical importance than such facts in this direction are the complementary facts that have been ascertained respecting anhidrotics. The sweating of the hectic and allied states has ever been a cause of anxiety to every practitioner; and it is satisfactory to be able to record decided advances during the year in our knowledge of the pathology of this symptom, and of its treatment. The reference that has just been made to the effect of heat and of imperfectly oxygenised

blood upon the central sweat-apparatus will suggest to many a rational explanation of remedies that they have hitherto employed empirically only; and direct and indirect stimulants of the respiratory centre, such as strychnia, belladonna, duboisin, etc., which counteract the asphyxial tendency, have their anhidrotic properties also accounted for. Pilocarpin and picrotoxin have also given fairly satisfactory results in the treatment of the night-sweats of phthisis. It is interesting to notice that nocturnal enuresis also has been relieved by the subcutaneous injection of strychnia.

A contribution to the subject of the Antagonism of Medicines has been made with respect to the treatment of strychnia-poisoning, which was found to be more successfully carried out by means of chloral hydrate than by bromide of potassium, or by a mixture of the bromide and chloral. Alcohol and physostigmin have also been fairly tried for the same purpose, but with less success. Nitrite of amyl has been given with marked temporary benefit in a case of chloral poisoning. Drs. Ringer and Murrell have found that pilocarpin antagonises muscarin as regards the heart, although these drugs are in certain other respects so similar in their action. Duboisin antagonises morphia with remarkable rapidity (page 155, February 8).

Eserin, duboisin, pilocarpin, and gelsemin, have been extensively used during the year by ophthalmic surgeons in all parts of the world, and have proved themselves most valuable additions to the drugs that have a specific effect upon the eye.

Amongst the contributions to the subject of anæsthetics during the year, there deserves to be noticed M. Paul Bert's method by means of nitrous oxide gas under pressure in a pneumatic chamber. Dichloride of ethedene has been used with success (see page 62, January 18). Dr. Arnott's communications upon the value of congelation as an anæsthetic will be remembered by our readers (page 347, March 29). Chloroform seems to continue to lose instead of to recover its reputation as a safe anæsthetic.

The year has been fruitful in contributions to our knowledge of the uses of carbolic acid. As an inhalation, it has been used with some success in whooping-cough; and it has been applied locally as the glycerate to the diphtheritic throat. But it is in its surgical applications that carbolic acid has to be chiefly noticed.

And the knowledge of the value of the antiseptic system, as elaborated and taught by Mr. Lister, and the practice of it, have been greatly increased and furthered; especially by means of the remarkable debate on the subject lately held at St. Thomas's Hospital. The details then given of the results of its employment by Mr. Lister himself, Mr. Mac Cormac, Sir James Paget, Mr. Spencer Wells, and others, cannot fail to exercise great influence for good.

Amongst other more recent antiseptics we have to mention boric acid, alone, or in combination with carbolic acid, for making medicated cotton-wool. Verneuil has resuscitated the treatment of wounds by local baths, with the addition that the liquid is made (variously) disinfectant (see page 272, September 6).

Benzoate of sodium has attracted much attention therapeutically during the year. On more than one occasion (May 31, page 596; November 22, page 585; and December 6, page 642) we have given reports of cases of different diseases—belonging chiefly to the infective class—that have been benefited by this drug, administered either internally or in the form of spray. Our readers will not have forgotten the "Innsbruck fiasco" (November 22). On the other hand, we trust they have not failed to give a trial to the treatment of putrid expectoration by the *continuous* inhalation of antiseptic substances, as described on page 559, November 15.

There are certain advances in the art of treatment that

have been made during the year, which, although not medicinal, cannot be passed over without reference. Such, for example, is that triumph of ophthalmic skill, corneal transplantation (November 22, page 587). Cold water enemata have been used with some success as an antipyrexial measure in a Russian clinic (July 19, page 79); and we have ourselves published equally valuable testimony to the power of this method in reducing the temperature in fever, from the pen of Dr. Lucas (page 365, September 27). On the other hand, injections of very hot water (110° to 140° Fahr.) have been found of great value as a means of arresting certain forms of uterine hæmorrhage (June 14, page 654), and syringing with hot water a valuable hæmostatic in oozing after surgical operations (page 347, September 20).

Several cases of epilepsy and of cerebral abscess have been relieved during the year by the operation of trephining (see page 384, April 5, and page 651, December 6). Bandaging the head during an attack of migraine, though an old domestic remedy, seems to have been forgotten by the profession, and deserves a trial, on the recommendation of Dr. Weir Mitchell (page 636, June 7).

That most troublesome class of surgical case, the chronic ulcer of the leg, has lately been treated by means of tension sutures, by indiarubber bandages, by indiarubber bandages over antiseptic dressings, and by sheet-lead.

A "new and successful" method of treatment of shock has been introduced by Dr. Hunter, of New York, namely, by means of the hot bath. The patient, after railway injury, for example, is placed at once in a bath at 98° Fahr., and the temperature of the water is rapidly raised to 110°.

Sir William Jenner's lecture on the treatment of typhoid fever (see November 29, page 611), a worthy addition to the great work that he has already done in this department of medicine, has certainly added to our resources at the bedside.

It hardly falls within our province to record the advances that have been made in pharmacy and in the form of remedies during 1879. We may, however, note the favourable report from America on the combination of ether with cod-liver oil in cases where the plain oil disagrees, published on page 536, November 8. The value of "dialysed" iron appears to be still unsettled, and ought to be inquired into by every practitioner (see page 588, November 22).

The year has seen a decided growth in the feeling of the desirability of introducing the metric system into British pharmacology. We have referred to the many advantages of this system (page 374, September 27), and we hope next year to be able to chronicle some practical step towards its adoption in the Pharmacopœia.

Our readers know so well the importance that we have always attached to animal vaccination that we trust they will rejoice with us in the recent—or rather the present—movement that is being made towards securing its adoption by the State, and thus advancing in a dual way preventive medicine.

Increased familiarity with the processes and products of digestion has lately given a powerful impulse to the employment of more or less digested products in the place of ordinary food in low states of the system and in dyspepsia. "Peptonised" milk is one of the newest and most promising forms of aliment. Peptonised meat, which is excessively unpleasant, is now administered per rectum; and a liquid form of it has been given by intravenous injection (see August 30, page 246). The circumstances under which the transfusion of milk can be safely performed are being better understood (page 16, January 4).

The year 1879 will be ever memorable amongst pathologists, and, we may hope, with humanity in general, if it should prove, as there is some reason for hoping, that

Professors Klebs and Tommasi-Crudeli discovered during the spring the physical cause—the fungus or *Bacillus*—of malaria (see page 452, October 18). We hope very shortly to be able to furnish our readers with the details of these remarkable investigations.

Albuminuria has received more attention than usual during the year, with respect both to its intimate cause (see page 348, September 20—"Peptonuria"), its occurrence in "healthy" individuals, or at least without other evidence of "renal disease," and its variation under different conditions of rest and diet (page 93, January 25).

Much has been written during the year in support of the localisation of functions in the cerebral convolutions, and something against it; but the evidence is greatly in favour of the theory. It can hardly be said that fresh discoveries have been made upon the portions of the cortex which were left "dark" by Ferrier. In the meantime, the spinal cord is being more thoroughly investigated, and some interesting results respecting the localisation of its functions were recorded by us at page 453 (October 18). We have just referred to important observations on the functions of the nerves of the lungs, heart, and vessels, as well as of the trigeminus. A valuable summary of our knowledge upon the regulatory mechanisms of the body was given by Professor Hermann on March 8.

The apex-beat of the heart has been the subject of prolonged discussion in Germany, to which we have referred on one occasion (October 11, page 421), but which must still be considered as unsettled. As usual, many papers have appeared during the past twelve months upon other subjects connected with the heart and with the circulation. The condition of the heart in pregnancy and post-partum has received fresh attention abroad, and notably in this country from Dr. Angus Macdonald, of Edinburgh (see page 184, February 15). We have elsewhere referred to the condition of the heart after section of the vagus, and to the physiology of that nerve. Vagotomy appears to have demonstrated the existence in the pneumogastric of vaso-motor branches to the lungs. Observations on vaso-motor centres, paths, and nerves have been very numerous lately; and our knowledge on this branch of physiology is steadily advancing.

The subject of trophic nerves and trophic lesions continues to be a fruitful subject of investigation and discussion, especially in Germany.

At the end of last year we had to record that the continued mismanagement of the Army Medical Department had gradually made the Service so unpopular that all real competition for commissions in it had ceased, and it was impossible to keep the establishment full; that the then Secretary for War had been at last forced to recognise that the state of matters was highly unsatisfactory; that he had appointed a Committee to inquire into the causes of the unpopularity of the Service, and to point out the remedies that might appear to be called for; and that the Committee had reported at the end of September last year. Meanwhile, Mr. Hardy, who had appointed the Committee, had been removed to the House of Lords, and had been replaced at the War Office by Colonel Stanley; and the year closed without any action having been taken on the report of the Committee, though the impossibility of getting candidates to come forward in numbers at all approaching the requirements of the Service had become so accentuated that the authorities had stopped the examinations for admission to the Army Medical Department. In this state matters continued till almost the close of the present year, or rather went on from bad to worse: no examinations were held for entrance into the Army Medical Department, and no Student-Surgeons of her Majesty's British Army were to be found at the Netley Hospital School; proper and sufficient surgical aid for our troops

during the Zulu War was supplied only through the employment of nearly as many civilian as military surgeons; in India, even at the commencement of the Afghan War, there was but a scant supply of military surgeons for the troops of her Majesty's British Army, and later on a serious want of them by both the British and the Indian Services; at home the Department was so short-handed that civilian surgeons had to be largely employed, while officers just returned from foreign service could hardly get a day's leave, and those on home duty were harassed by overwork and by incessant change from station to station. And yet all this time the new Medical Warrant was still "expected"! An examination of candidates for the Army Medical Department was twice advertised, and twice postponed. But at last, on November 8, an examination was for the third time advertised, to be held on the 8th of the present month, and at the same time a new Schedule of the Qualifications of Candidates was issued; and on December 2 the new Warrant appeared. The terms must be so fresh in our readers' minds that we need not repeat them here, but may be content to say that they redress many of the grievances most felt; and that though the Warrant does not grant all that could be desired, yet it will go far towards making the Service once more popular and attractive. The number of vacancies to be filled was not stated in the advertisement, but eighty candidates presented themselves for examination, and it has been announced that of these sixty-five "were successful at the competitive examination," and that seven others had "obtained the qualifying number of marks, and been accepted." No doubt not a few of these candidates had been for many months waiting for a chance of entering the Service; and it was not, therefore, probably altogether the acceptableness of the new Warrant that induced such a large number to present themselves. But, anyhow, the prospects of the Department are brighter than they have been for many years; and it may be expected that if the terms of the Warrant are loyally adhered to, and wisely and considerately carried out, the Secretary for War will not find it necessary to use the power given to him by the Warrant to fill up a limited proportion of vacancies in the department by nomination instead of by examination.

The annual meeting of the British Medical Association, held in Cork, on August 5 and the three following days, was a very successful one from every point of view. The opening discourse by the President, Dr. O'Connor, was high-toned and scholarly; and the Orator in Medicine, Dr. Hudson, gave an admirable address on the Labours of Laennec and their Influence on Practical Medicine. One of the three addresses-in-chief was this year on Preventative or State Medicine, and the selected orator, Dr. Fergus, of Glasgow, gave a very interesting and good address on the subject; but it may be safely said that the address of the meeting was the Address in Surgery delivered by Mr. Savory, who took for his subject "The Prevention of Blood-Poisoning in the Practice of Surgery." Mr. Savory's eloquence and clearness of style as a speaker are well known, and on this occasion he did full justice to his gifts of oratory, and surprised as well as delighted his Irish hearers. The address was, in effect, an attack on the "antiseptic system," and excited great attention and interest; but it may be questioned, at the least, whether as an attack on Listerism it can be considered as successful as it was forcible and skilful. Many able addresses were also given by the presidents of sections, as that, among others, of Dr. Andrew Clark, in the Section of Medicine, on Medical Education, the Position of Therapeutics, and the Prospects of Experimental Enquiry in this country; and in each of the sections special subjects had been selected for discussion, and papers invited from workers supposed to be specially

interested in them. The meeting was, as we have said, a very successful one, the only fault to be found being that the work to be got through in the time was much too great and important. It is said, however, that arrangements for facilitating the discussion of important subjects, and the transaction of business generally, at future meetings, are under consideration by the Council of the Association. The next annual meeting will be held at Cambridge, under the able presidency of Professor Humphry.

The British Association for the Advancement of Science met at Sheffield; and the President for the year, Dr. G. J. Allman, selected for the subject of his opening address the properties of protoplasm, and the part it plays in the two great kingdoms of organic nature. We showed our appreciation of the highly instructive and interesting character of the address by publishing it in full in our pages; but we could not at all accept some of the propositions that he laid down, and consequently felt it our duty to comment on them and to point out where we thought he erred. Two other able and especially noteworthy addresses were given during the meeting of the Association: that by Mr. St. George Mivart, as President of the Biology Section, on the Work and Teachings of the Great French Naturalist Buffon; and that by Dr. Pye-Smith, who presided over the Sub-section of Anatomy and Physiology. Dr. Pye-Smith pointed out the aims of physiological inquiry, and delivered a most telling and eloquent defence of vivisection.

The annual congress of the National Association for the Promotion of Social Science was held at Manchester in the first week of October. The most notable of the addresses delivered was, from our special point of view, that of Mr. F. S. Powell, the President of the Public Health Section, on the necessity of placing the whole subject of public health under the charge of a Minister of Health, who shall be in every way on an equality with other Ministers of the Crown charged with the highest and most weighty responsibilities; instead of, as is now the case, being committed to the care of a Minister who holds a secondary position, and is "overshadowed in debate by his colleagues, and may be superseded by them in his proper and most important functions," and moreover is charged with the administration of the Poor-law. We have long ago advocated the appointment of a Minister of Health, to hold such a position as Mr. Powell so well described. We agree with him in believing that it is "a paramount necessity," and we think that the necessity will ere long be generally recognised.

The congress of the Sanitary Institute of Great Britain was held in Croydon, and a considerable amount of work and play was got through, some forty papers having been read, and several addresses delivered. Dr. B. W. Richardson gave his audience a word-picture of "Salut-land, an Ideal of a Healthy People," which is to exist somewhere in or about the year 2050; and Dr. Alfred Carpenter's address, also, on the First Principles of Sanitary Science, was high-flown and visionary rather than practical. The address best calculated to prove practically instructive and useful was that from Dr. Corfield on Sanitary Fallacies.

The Committee of the Home Hospitals Association purchased, early in the year, the lease of Berkeley House, at one of the corners of Manchester-square and Lower Berkeley-street, for the reception of paying patients; but, as might have been expected, the inhabitants of the neighbourhood strongly objected to the house being converted into a hospital, and Lord Portman, the ground landlord, applied to the Rolls Court for an injunction to restrain the Association from making such a use of it. The case was heard in the first week of the present month, and the Master of the Rolls decided that the proposed use of the house would be clearly a breach of the covenants contained in the lease, and

that therefore the injunction prayed for must be issued. Since then the Committee of the Association have purchased a freehold suitable to their purposes in Fitzroy-square.

Last year the action "*Hill and others v. the Metropolitan Asylums Board*," commonly known as the "*Hampstead Hospital Case*," was tried before Baron Pollock, and the jury, after a long and careful trial, found, first, that the Hospital was a nuisance *per se*, and secondly, that if not a nuisance *per se*, it had been made a nuisance by the absence of due care on the part of the managing authorities. The judge, after full consideration, affirmed the verdict, gave judgment for the plaintiffs, and granted an injunction restraining the defendants from maintaining the Hospital so as to be a nuisance. The defendants appealed, and applied to the Queen's Bench Division of the High Court of Justice for a new trial, on the grounds that the verdict was against the evidence and had also been founded on misdirection. The case has been dragging its slow length through the Courts during the present year. In May the application for a new trial was argued before the Lord Chief Justice, Mr. Justice Mellor, and Baron Pollock; and the Court, though not prepared to set aside the finding on the first issue above mentioned, yet, thinking the finding on the second issue unsatisfactory, thought it best that the whole case should go to a new trial; and from that decision the plaintiffs appealed, mainly on the ground that the second issue was immaterial, if the finding on the first was right; that it was not decided that it was not so, and that, in truth, it was so; and that a verdict for the plaintiffs was sustainable on that finding alone, both in fact and in law, which on the part of the defendants was denied. The contention on the part of the defendants was that, even assuming the Hospital to be a nuisance, it was authorised by the Act of Parliament, allowing "asylums to be established for the sick poor, under the authority of the Poor Law Board," and, further, they objected that the finding for damages, on the ground of an improper management of the Hospital, was unsatisfactory, because there were three plaintiffs; and that their circumstances were different, and the damages different, and the verdict was equally applicable to all. It must be stated that in the course of the trial the plaintiffs offered to give evidence as to two other small-pox hospitals established by the Board at Stockwell and Homerton, and the defendants objected to such evidence, and on their objection it was excluded, and they gave no such evidence themselves; and this the Court of Appeal considered of great importance. The case was tried in the Court of Appeal, before Lords Justices Bramwell, Brett, and Cotton, occupying several days, and the Court took time to consider their judgment, which was delivered on the 18th of the present month. Lord Justice Bramwell said that he could not see anything like misdirection on the part of the judge who first tried the case, and he reviewed with much care and minuteness the evidence, "not for the purpose of showing that it was not sufficient to justify the verdict, but for the purpose of showing that it was not so clear and satisfactory as to be absolutely free from doubt." He expressed himself as being absolutely certain that the defendants ought not to have rejected the evidence proposed to be given by the plaintiffs to show that small-pox had spread from the Small-pox Hospitals at Homerton and Stockwell; and ought to have themselves offered evidence to show that there had been no additional amount of the disease in the neighbourhood of those hospitals. He said he felt so strongly on the exclusion, coupled with the omission, that he had "the greatest doubt whether it ought not to be conclusive against the defendants." He did not think he should have granted a new trial had the case come to the Court direct from the trial,

fully and plainly acknowledging the terrible evils caused by the immoderate use of alcoholic stimulants, we have withstood and denounced the foolishness and intemperance of those who insist, on every possible occasion, that the use of alcohol under any form, in sickness and in health, is an unmixed evil. We have had to speak of the proved possibility and danger of Milk Contamination; and have reported and commented on the St. John's-wood outbreak of diphtheria, where milk was suspected to have been the vehicle of the poisoning; and on the spread of Typhoid Fever by this means at Dublin, Chichester, and Bristol; on the very curious epidemic of typhoid in Zurich, which was apparently shown by Dr. Walder to have been caused by the consumption of diseased meat; and on the typhoid epidemics at Caterham and elsewhere, clearly due to contaminated water-supply. We have dealt with the great question of Water-Supply in the Lower Thames Valley, for London, and other great cities; with the "Influence of Climate on Phthisis and Rheumatism," with the subject of the "Artisans' Dwellings Acts," with the still unsettled "Hampstead Hospital Case," with the "Mortality of Lying-in Hospitals," and with "Hospital Government" in general; with "School Hygiene," with the "Suppression of Quackery," and the subjects of "Vivisection," of the "Duties on Wine," of the appointment of "A Minister of Health," and of "Animal Vaccination"; and have commented on some crimes that have startled the public, and unhappily, in two instances, have implicated members of the profession. The subject of education, preliminary and professional, has demanded attention, and has been treated of in articles on "The Position of the Classics in Medical Education," and on the question of the value of so-called technical as opposed to classical education in the primary education of youths who are to enter the profession; on the "Proposed Victoria University," on "Classes for Medical Men," on the "Teaching of Anatomy and Physiology," and on "The Primary Examinations at the Royal College of Surgeons"; and we have had the satisfaction of observing that the change made by the Council of the College, in appointing separate examiners in anatomy and physiology, have been in accordance with the views that we strenuously advocated. The Plague Epidemic in Astrakhan demanded frequent notice in our columns, and besides the lectures by Professor Hirsch on this subject, which we have already mentioned, we gave our readers a short account of the progress of Plague from its re-appearance in 1853, by Mr. J. Netten Radcliffe; some observations on the characters of Epidemic Plague in Mesopotamia in 1876-77, by Dr. Dickson, of Constantinople; the opinions of Professor Virchow on the Plague; and the results of the investigation made by Professor Lewin, of Berlin, into "The Supposed Case of Plague at St. Petersburg." Turning to more narrowly professional subjects we have had articles on the "Etiology of Fibroid Tumours of the Uterus," on "Periodic Hæmoglobinuria," on the "Detection of Pyloric Insufficiency," on "Cinchonine or Quinidine," on "Quebracho, a Palliative Remedy in Dyspnoea," on the "Local Treatment of Putrid Expectorations," and on the use of inhalations of benzoate of sodium as "A New Remedy" in phthisis; on "Cardiac Hypertrophy and Renal Disease," on "Tania Imbricata," on "Enteric Fever in India," on "Experiments in Disinfection," and on "Posture in the Reduction of Hernia"; on the "Microscope in Gynæcological Diagnosis," on "Typical Cases," "Defective Hospital Records," and "The Economics of the Calcutta Hospitals"; on "American Harveian Addresses," on "The Forceps Debate," and on many other subjects of professional import.

And we have had to notice the proceedings of the General Medical Council; to comment frequently on the character

and the progress of the Medical Bills before Parliament, and on the evidence given before the Select Committee of the House of Commons on the Bills. The disastrous mismanagement of the Army Medical Department has necessarily been frequently commented upon; and we have much pleasure in congratulating the Service, and all who wish to enter it, on the general character of the new Army Medical Warrant. Its terms are a great improvement on the previous conditions of the Service, and, though it certainly is not all that is to be desired, yet it redresses some of the chief of the grievances that we have so often insisted must be removed; and it will, if loyally and wisely carried out, go far towards restoring the efficiency and popularity of a once highly popular and efficient Service.

In our articles headed "From Abroad," in our American Correspondence, and elsewhere, we have supplied our readers with full notices of some of the most important subjects that have engaged the attention of our brethren on the Continent and in America. To mention some of these we may name M. Fournier's lectures on "Syphilis in Relation to Marriage," and on "Syphilitic Inoculation"; M. Raynaud's communication on the Transmissibility of Hydrophobia from Man to Animals; Professor Ball's lecture "On the Diagnosis of Insanity"; the papers of Drs. Satterthwaite and Porter, of New York, on the Statistics of Cancer; of Dr. Munn, of New York, on "Albuminuria in the Apparently Healthy"; and of Dr. J. Roberts, of Philadelphia, on "Paracentesis of the Pericardium"; and articles on "Yellow Fever," on the "Tenement-Houses of New York," and on other sanitary and social problems that are troubling our American cousins as much as they perplex us at home.

Finally, we close this imperfect summary of the Medical Year 1879 by heartily thanking all our contributors for the valuable aid they have given us; and by cordially wishing them, and all the rest of our brethren, at home and abroad, a Happy Christmas and a Happy and Prosperous New Year.

THE WEEK.

TOPICS OF THE DAY.

THE decision of the Court of Appeal in the now celebrated Hampstead Small-pox Hospital case was delivered last week, and the difference of opinion on the subject was, singularly enough, continued to the end, since the decision arrived at was not unanimously agreed to by all the members of the Court. Lord Justice Bramwell spoke at some length on the case, and eventually decided that there should be a new trial, on the condition that the defendants pay the costs of the former trial except so far as the costs were caused by issues on which the plaintiffs failed. Lord Justice Cotton concurred in this ruling; but Lord Justice Brett, while agreeing that there ought to be a new trial, could not agree in the condition that the defendants should pay the costs of the former trial. As the verdict was not satisfactory, he thought this condition illogical, unusual, and unjust. The counsel for the Hospital asked for time to consider the advisability of an appeal to the Lords. Eventually, after some discussion, they were allowed two months in which to decide whether they will appeal to the Lords or acquiesce in the judgment now given, either yielding to the verdict or paying the costs of the first trial. Without venturing to criticise the decision of such eminent judges, it must be admitted that at first sight it appears as though they had endeavoured to make their finding agreeable to both plaintiffs and defendants; but either the verdict on the main issue in the first trial was correct, or it was not: if the former, it may be asked why it is not allowed to stand; if the latter, why should the defendants be called upon to pay costs because a judge and jury have erred? And after the marked differences of opinion among

judges regarding this and other cases, and in particular after the above-quoted declaration of the Lord Justice that a condition imposed by his colleagues was "illogical, unusual, and unjust," we may surely hope that legal men will be the last to speak of differences of opinion among doctors.

The usual winter meeting of the representatives of the congregations contributing to the Metropolitan Hospital Sunday Fund was held last week at the Mansion House under the presidency of Alderman Sir Sydney Waterlow, M.P., in the unavoidable absence of the Lord Mayor. It was moved by the Rev. Dr. Kennedy, and seconded by Mr. Coope, M.P., that the laws of the constitution of the Fund which have been in force during the past year be continued. In addition to the arrangements under which the various hospitals and infirmaries are to be considered eligible to participate in the distribution of the Fund, these laws provide that the congregations which have forwarded contributions to the Fund during two consecutive years shall be entitled to a voice in its management. This motion was unanimously agreed to. The claims of the Royal Hospital for Incurables to participate in the awards of the Fund were brought forward and discussed, and eventually it was resolved that the Council should receive a deputation from this Hospital, and report generally on the subject at the next annual meeting. It was resolved, at the instance of Bishop Claughton, seconded by Canon Fleming, that June 13 next be fixed for the Hospital Sunday of 1880; and after the retiring Council had been re-elected, the proceedings terminated.

It has, we believe, been decided that the form which the English memorial to the late Princess Alice shall take is the endowment of the Hospital and School for Nurses in Darmstadt, which her late Royal Highness founded. The surplus, after the endowment of the Hospital, will be given towards the maintenance of other kindred institutions in which the Princess was personally interested.

At the recent Petty Sessions held at Brackley, near Banbury, Mrs. Rhoda Bishop, of Culworth House, the widow of a surgeon, was charged with receiving into her house two lunatics, the house not being a registered house or asylum under the Lunacy Regulations Act. The prosecution was undertaken at the instance of the Lunacy Commissioners, and after hearing the evidence of Mr. Jacobs, a surgeon, and other witnesses, the Bench committed the defendant for trial at the Northampton Assizes, bail for her appearance not being refused.

The *Academy* announces that the managers of the Royal Institution have awarded the Actonian Prize of £105 to Mr. G. S. Boulger, F.L.S., F.G.S., for an essay on "The Structure and Functions of the Retina in all Classes of Animals, viewed in relation with the Theory of Evolution."

The *London Gazette* of last week contains what it is presumed we may consider the last distribution of honours for the Zulu campaign; the appointments made are to the Most Distinguished Order of St. Michael and St. George, and amongst the names of those officers selected for the decoration we find that of Surgeon-General John A. Woolfryes, M.D., who is already a Companion of the Bath.

Last week Princess Louise, Marchioness of Lorne, and Prince Leopold came up from Windsor to visit Westminster Hospital. They were received by Sir Rutherford Alcock and other members of the House Committee, and by Dr. Fincham, Dr. Allchin, and Mr. Cowell, members of the staff. The object of the visit was to see the decorative work which has been executed in the Hospital by members of the Kyrle Society, of which their Royal Highnesses are President and Vice-President. The Royal party seemed greatly pleased with the care bestowed on the patients, and with the numerous improvements which have recently been effected in

the Hospital, particularly noticing the nurses, who were drawn up in the corridor, and three of whom are decorated with the St. Katherine badge.

A great deal of agitation is at the present moment going on for the purpose of securing additional open spaces for the metropolis, and the necessity for them cannot be brought too prominently to notice. In proof this, our contemporary *Iron* says—"Endeavours are being made to obtain a new public park for Paddington and West London. Seeing that four great parks already exist in that favoured quarter of the metropolis, the necessity of an additional one is not at first apparent; but the Paddington district is being rapidly built over, and the increased density has been shown to be accompanied by a remarkable increase in the death-rate, in conformity with a general law which is thus illustrated by the Registrar-General. The mean density of population in the Paddington district was 18,284 persons to a square mile in the ten years 1841-51, and 44,150 in the ten years 1861-71. The annual rates of mortality in the corresponding years were 16.6 and 20.0 per 1000; the increase of density thus added 3.4 per 1000 to the annual rate of mortality, which is more than it should have added according to the general law of increase." Persistent efforts are being made to obtain the site of Horsemonger-lane Gaol, about two acres and a half in extent, as an open space when the building has been pulled down; and recently a deputation waited upon the Lord Mayor to endeavour to enlist his assistance in their application to the Surrey bench of magistrates either to grant the site as a gift to the public, or to sell it on reasonable terms to some public body for the use of the neighbourhood.

ANIMAL VACCINATION.

THE adjourned meeting of medical practitioners, convened to discuss the subject of animal vaccination as an alternative system, was held on the 18th inst. A letter was read from Dr. Warlomont in reply to the speech of Dr. Stevens, made at the former meeting. A very able and instructive speech was made by Dr. Ballard, of the Local Government Board, who disclaimed, on the part of the Board and its officials, any prejudice against animal vaccination as a system. He dealt with Dr. Cameron's letters on the subject, and claimed that the Vaccination Department had carried out vaccination with completeness, thoroughness, and safety. He contended that the results obtained by the arm-to-arm system were far superior to those obtained from animal vaccination; but added that the Medical Department of the Local Government Board was anxious to do the best it could for the vaccination of the country, and that if it should be found that animal vaccination would be best, he had no doubt in his mind that the Board would adopt it. Mr. Ceely, Dr. Cory, Professor Symonds, and others spoke, and the meeting was further adjourned until the 31st inst.; after which date we shall deal fully with the subject.

NOTIFICATION OF INFECTIOUS DISEASES.

WE have received a circular letter from the St. Giles District Board of Works, addressed to the treasurer and managers of the different hospitals in the metropolis, directing their attention to the spread of infectious diseases by reason of such cases being removed to the general hospitals without the knowledge of the officers of health. The guardians of the poor send all pauper cases of typhus fever and other infectious diseases to the special hospitals of the Asylums Board, and at once inform the medical officer of health of the house and room occupied by the person so removed, who immediately has the same disinfected. Persons (non-paupers) suffering from typhus fever

are frequently admitted as patients into general hospitals, without the knowledge of the boards of guardians. The dwellings of these people remain infected unless by chance the medical officer finds it out. In the meantime several other persons become infected, and the disease spreads without proper control. The managers of hospitals are requested to communicate with the respective parish authorities whenever patients suffering from typhus fever or other infectious disease are admitted into their hospitals, in order that the infected dwellings may be immediately disinfected.

THE DEBATE ON ANTISEPTIC SURGERY.

THE adjourned discussion on Mr. Mac Cormac's paper on Antiseptic Surgery took place on the 17th inst., at the meeting of the South London District of the Metropolitan Branch of the British Medical Association. The President of the Branch, Mr. John Wood, opened the proceedings, giving an interesting and instructive account of his own experience, and stating that he was convinced of the exceeding great value of the Listerian dressings, and had employed the method in all serious operation cases. The debate was continued by Mr. Jonathan Hutchinson, Sir James Paget, Mr. Lund of Manchester, Dr. Newman of Stamford, Mr. Knowsley Thornton, and Mr. Marrant Baker, and was closed by a reply from Mr. Mac Cormac. The speeches were all of them good, but we may in this brief notice specially mention for its high judicial value Sir James Paget's address. He concluded by remarking that there are groups of operations in which, so far as he could ascertain, the complete antiseptic treatment is absolutely essential to success; and by stating that, of all the improvements achieved in surgery during his knowledge, the improvement in the mortality after operations is the greatest, and, without any comparison, he who had most contributed to it is Professor Lister. Sir James's only doubt is whether Lister has done more good by antiseptic treatment than by provoking other surgeons to do their best in other ways. We cannot notice the subject of debate more fully now, but will take an early opportunity of returning to it.

THE ERASMUS WILSON TRUST.

IT is stated that in all probability Mr. Henry Trentham Butlin, of St. Bartholomew's Hospital, will be elected the Erasmus Wilson Lecturer at the Royal College of Surgeons. Mr. Butlin, who received his professional education at St. Bartholomew's, was admitted a Member of the College in 1867, and a Fellow by examination in 1871; two years after he obtained the Jacksonian Prize for his essay on Ununited Fractures.

NOWELL v. WILLIAMS.

JUDGMENT was given in this case, in the Common Pleas Division of the High Court of Justice, on December 20. It will be remembered that the case, in which the plaintiff, a medical man, sought to recover damages against his brother-in-law for maliciously causing him to be seized and confined in a lunatic asylum, was tried at elaborate length before Lord Chief Justice Coleridge, and resulted in a verdict for the defendant. The plaintiff applied for a rule for a new trial on the ground of surprise, misreception of evidence, misdirection by the learned judge, and that the verdict was against the weight of evidence. The Court, having taken time to consider their verdict, decided that there would be no rule with regard to misdirection or surprise; but that a letter from the plaintiff's sister to the plaintiff's wife on the state of the plaintiff had been admitted in evidence, which, it was contended, ought to have been kept out. The Court thought the admissibility of the letter as evidence was very doubtful, and therefore granted, on that ground, a rule for a new trial.

ARMY MEDICAL SERVICE.

THE following is a list, in order of merit, of the sixty-five candidates who were successful for appointments as surgeons in her Majesty's British Medical Service at the competitive examination held in London on the 8th inst., with the number of marks obtained by each:—

	Marks.		Marks.
F. R. Barker	2590	R. D. Donaldson	1750
A. H. Keogh	2525	H. L. E. White	1745
C. B. Hill	2420	C. M. Johnston	1740
J. R. A. Clark	2330	J. L. Hall	1705
H. E. B. Flannagan	2295	A. H. Burlton	1700
H. J. Michael	2230	E. North	1695
T. Dorman	2215	G. F. Poynder	1695
A. W. P. Inman	2185	J. K. Sherman Bigg	1675
T. M. Corker	2180	G. F. A. Smythe	1665
E. H. Myles	2145	H. L. Battersby	1655
G. S. Robinson	2125	A. Hewitt	1645
F. B. Moffitt	2115	E. Landon	1640
C. A. Webb	2075	P. Mulvaney	1635
J. G. S. Lewis	2065	J. E. Nicholson	1635
H. Martin	2050	T. W. Beale	1625
A. E. J. Croly	2010	F. E. C. Hood	1625
R. O. Cusack	2010	W. O. Wolsley	1610
E. F. Smith	2010	T. F. McNeece	1605
W. A. Cowen	2000	R. V. Smith	1590
R. H. Forman	1995	B. T. McCreery	1580
S. J. Flood	1965	A. P. O'Connor	1575
D. S. Williams	1955	A. McM. Bolster	1570
G. W. Robinson	1940	D. Wardrop	1545
N. Cameron	1920	G. T. Goggin	1520
J. Watson	1910	H. G. Christian	1485
O. Todd	1905	J. M. Jones	1470
A. O. Geoghagan	1876	F. M. Baker	1465
C. R. Egan	1810	C. Williamson	1460
J. D. Day	1805	R. Oliver	1415
W. R. Henderson	1805	A. Asbury	1400
R. T. Cumming	1800	P. M. Carleton	1375
A. M. Kavanagh	1795	F. R. Maclean	1365
J. H. Harwood	1765		

Seven other gentlemen having obtained the qualifying number of marks, have also been accepted, viz.:—H. L. Cox, J. P. Carmody, R. W. Barnes, T. G. Walsh, G. H. K. McO'Callaghan, P. H. Fox, and H. A. Wall.

HEALTH OF MR. HENRY HANCOCK.

WE regret to learn that Mr. Hancock's state of health is such at present as to cause considerable uneasiness to his family and many friends.

THE FRENCH HOSPITAL.—A handsome chronometer has just been presented by a few friends of this Hospital to Mr. Eugene Rimmel, the indefatigable Honorary Secretary, to whom the Hospital owes so much for its great success. The usual annual festival in aid of the funds of the charity will take place on the 31st prox., under the patronage of the French Ambassador.

THE THAMES VALLEY DRAINAGE ONCE MORE.—Yet another deputation to the President of the Local Government Board on the subject of the Lower Thames Valley drainage. This time the owners and occupiers of property lying within the area proposed to be taken for the Heywood Sewage Farm scheme attended to express their objections, and to endeavour to enlist the President's sympathies in their behalf; and Mr. Slater-Booth seems to have placed the necessities and difficulties of the matter before the deputation in a very straightforward manner. He said that he understood that the reason so large a quantity of ground was required for the project was that a nuisance such as sewage, which would be imperceptible on a thousand acres, would be intolerable on a hundred acres. The deputation had placed before him some very elaborate statements which he would take into consideration. At present he would only say that some means of getting rid of the Thames Valley sewage must be resorted to besides the river, and he thought that the whole matter should be examined with forbearance and liberality on both sides.

NOTICES OF BOOKS, ETC.

Manual of Practical Anatomy. By J. COSSAR-EWART, M.D., F.R.C.S.E., F.R.S.E., Lecturer on Anatomy, School of Medicine, Edinburgh. With outline plates engraved by W. Ballingall. *The Upper Limb.* London: Smith, Elder, and Co. Pp. 69.

ANOTHER work is before us emanating from the Edinburgh School; this time by a young man just commencing to teach anatomy. The object of the work is left unstated, and after a perusal of its pages it is still difficult to say why the work was undertaken. The new method advocated is to teach students to observe for themselves, and to fill in diagrams given in the book. Now, neither of these suggestions seems to us very new—not even modern,—and we are afraid the results of the methods suggested to further the purpose of the author would be very different from what he very properly strives after.

There is a strange mixture of teaching in the book: at one part the student is, rightly enough, told to observe such and such a thing (say motions of elbow or shoulder), and at another part he is presented with a complete “grinding” list of ordinary facts. The anatomical description is almost correct, as it could scarcely fail to be, considering that the subject is handled only superficially, and that this part deals with the easiest portion of human anatomy, the “Upper Limb.”

The work is brought out in a form not well adapted for use by the side of a dead body in a crowded dissecting-room; and, seeing that another manual must be used by the student in addition to this book, we fail to see how he can possibly derive a corresponding advantage from the multiplication of his authorities. The diagrams are useful teaching diagrams, and add much to the value of the work. But the work is neither a book of reference nor can it be considered a thorough exposition of what it attempts to teach. The author may have derived great benefit at the beginning of his teaching career from jotting down such facts as are here recorded, but such a work can hardly be considered as a solid addition to anatomical text-books.

Diaries and Visiting Lists.

WE have received from Messrs. Letts and Co., 33, King William-street, E.C., copies of each series of their Diaries. We need hardly say that these Diaries are highly popular; they are to be seen in use everywhere. The publication has now attained the highly respectable age of three score and ten years, or, to speak more exactly, is now in its seventieth year. The various series embrace 156 varieties, to meet the requirements of various professions and occupations; are to be had of all sizes, from large desk Diaries to small ones for the waistcoat-pocket; and are got up so as to satisfy the most fastidious taste, or to suit the capacities of the most slender of purses.

We are indebted to Dr. Alfred Sheen also for his “Handy” Medical Visiting List. This, which must now be pretty well known, is very simple, and small in size, so that it can easily be carried in the breast-pocket; and is issued in twelve similar divisions, one for each month. The List can be obtained of W. Lewis, publisher, Duke-street, Cardiff.

Robin's Carol, and what came of it: the Story of the Robin Dinners. Edited by the Rev. C. BULLOCK, D.D. With original illustrations by G. C. Pennefather and others. Third thousand. Hand and Heart Publishing Office, Paternoster-buildings, E.C.

THIS prettily got-up little book has for its objects to tell the story of the institution of the “Robin Dinners,” and to promote the multiplication of them. A “Robin Dinner,” we are told, is not a “relief dinner,” but an “invitation dinner” to which poor children, “waifs and strays,” are invited, and regaled with food, warmth, light, songs, etc.; and “Robin's Carol” consists of descriptions of such dinners. They were begun, it appears, three years ago with three or four hundred guests; and last year about ten thousand guests were included in the invitations. The movement has our heartiest good wishes; and this time of year is an especially appropriate one for the spread of it. It may be useful to add that “Practical Hints how best to Manage a Robin Dinner” may be obtained on application to “Robin,” 7, The Paragon, Blackheath, S.E.

GENERAL CORRESPONDENCE.

DISTINCTION BETWEEN TYPHUS AND TYPHOID FEVERS.

LETTER FROM DR. R. PERRY.

[To the Editor of the Medical Times and Gazette.]

SIR,—I will not exhaust the patience of your readers by replying at length to Dr. A. P. Stewart's letter of December 17. I before admitted it to be unfortunate that Dr. Perry did not give more publicity to the results of his experience subsequently to 1836, and further acknowledge that the published observations of Dr. Perry do not define the distinction between the fevers so clearly as Dr. Stewart has done, but while making this admission I still maintain the claims of the former to priority.

It would be easy for me to bring forward the testimony of a considerable number of medical men who, prior to 1840, were taught the specific distinction between typhus and typhoid fevers by Dr. Perry during the course of their studies in the Glasgow Royal Infirmary, and before the publication of what Dr. Stewart claims now as his discovery.

As one positive fact is, in my opinion, worth a volume of negative arguments, I will only further quote a sentence of a letter from Dr. C. L. Carson, Coleraine, Ireland, which appeared along with one of Dr. Stewart's in last week's *British Medical Journal*:—“I attended Dr. Perry's clinical lectures from November, 1836, till May, 1837. During my attendance on his clinical instructions I heard Dr. Perry lecturing so often on the distinctive points between typhus and what is now called typhoid that I could never forget the subject.” For the remainder of the letter I refer your readers to the journal mentioned. Dr. Carson is an entire stranger to me, and I feel indebted to him for his spontaneous and independent assertion of the truth.

I am, &c.,

ROBERT PERRY.

11, Queen's-terrace, Glasgow, December 22.

THE ABUSE OF MEDICAL CHARITIES.

LETTER FROM MR. H. C. BURDETT.

[To the Editor of the Medical Times and Gazette.]

SIR,—In reply to the letter of the Honorary Secretaries of the Bradford Medico-Ethical Society, will you allow me to say that they will find all the systems yet adopted for checking the abuse of hospitals in this and other countries fully set forth in “Pay Hospitals and Paying Wards throughout the World”—a book just published by Messrs. J. and A. Churchill? The only adequate system for “checking abuse in the giving of medical or surgical relief to those who are able to pay for private medical or surgical advice” is explained, and all known instances of its successful working are given in detail. I am, &c., HENRY C. BURDETT.

Seamen's Hospital, Greenwich, S.E., December 20.

WE observe that the name of Captain J. G. F. Richardson has been added by the Lord Chancellor to the list of magistrates for the borough of Leicester. Captain Richardson is the leading partner in the well-known firm of John Richardson and Co., manufacturing chemists, Leicester, and is also a member of the Pharmaceutical Council.

THE Sanitary Commissioner for the Punjab, Surgeon-Major Adam Taylor, in his remarks on the general health of the province during the week ending October 18 last, points out that the total number of deaths registered from all causes was 21,126, against 21,913 in the previous week, giving an annual death-rate of 62.8 and 65.1 per mille of population respectively. Fevers caused 17,986 deaths, or 897 less than the number returned last week. A slight improvement in the general health of the Gurgaon district is reported, but in the small town of Furnknagar the mortality continues to increase enormously, the total deaths registered in it being 193, giving an annual death-rate of 947 per mille. This latter is happily a most exceptional rate, as the next highest mortality was at Firozpur (330), whilst at Palwal and Rewari the rate was 311 and 268 per mille respectively. During the week under notice 119 deaths were registered from small-pox, and 29 from cholera.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, DECEMBER 9.

JOHN E. ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

TWO CASES OF CARCINOMA OF THE BREAST, PRECEDED BY SO-CALLED ECZEMA OF THE NIPPLE AND AREOLA.

MR. HENRY MORRIS, in this paper, gave the clinical history and the description of the post-mortem examination of two cases in which eczema of the nipple and areola was followed by cancer of the breast, and subsequently by diffuse secondary deposits in the liver and other parts of the body. The author stated that hitherto no complete report of any similar cases had been published, although it was now five years since Sir James Paget first pointed out the connexion between the two diseases. Both the cases now reported differed in some important features from Sir J. Paget's description, viz., in the extent of the so-called eczematous inflammation; in the length of time between the commencement of the eczema and the supervention of the cancer; in the continuity of morbid changes between the seat of the eczema and the cancerous mammary nodules; and in the age of the persons (always women) affected. The rarity of the cases in which cancer of the breast had supervened upon eczema of the nipple and areola was inferred from the fact that out of 305 cases of cancer or supposed cancer of the breast which had been treated by the author in the cancer out-patient department of the Middlesex Hospital up to the end of 1878, these were the only two instances in which the association between the two diseases existed.

ECZEMA OF THE NIPPLE AND CANCER OF THE BREAST: AN INQUIRY INTO THE NATURE AND MUTUAL RELATIONS OF THE MORBID CONDITIONS WHICH HAVE BEEN ASSOCIATED UNDER THESE NAMES.

Dr. THIN read this paper. The author dealt chiefly with the condition of the skin of the areola and nipple in a case operated on by Mr. Henry Morris, and in another operated on by Mr. George Lawson; and further with the kind of cancerous tumour found in these two cases, and in another breast given to him by Mr. Knowsley Thornton. A clinical history of Mr. Morris's case was now before the Society. Mr. Lawson's case was that of a woman aged fifty-two, in whom the affection diagnosed and treated as eczema had existed four years. The duration of a perceptible tumour in the breast was uncertain, but a year before the operation none could be felt. In Mr. Thornton's case a breast tumour had existed three years, and had been preceded for a year by a discharge from the nipple. The gland was atrophied and the skin over it puckered. The nipple was enlarged, and covered with wart-like excrescences. All the three tumours were of the kind which, when small, localised, chronic, and without concomitant affection of the lymphatic glands, have been described by English and some German pathologists as adenoid, or adenomas (the cases with a more malignant history clinically being confounded with the other or scirrhus type of mammary cancer). Similar tumours had been described by Waldeyer as examples of what he calls *fibro-carcinoma cysticum mammae*, by Labbé and Cohn as *epithelioma intra-canaliculaire*, and by Cornil and Ranvier as *carcinoma villosus*. The author endeavoured to show that all the cases of eczema of the nipple with cancer of the breast which had been previously recorded also belonged to this category of tumour, and that the association with the more common or scirrhus variety of cancer had not yet been observed. He said that the cancer which was associated with the diseased areola and nipple was a cancer which took its origin by a cell-formation in the lactiferous ducts. It extended by descending into the smaller ducts, and also by the continuous growth of columns of cells which get into the connective tissue by breaking through the *membrana propria* both of the larger and smaller ducts. The forms assumed by the growth depended on the situation. In the cutis and also in some parts of the breast the cell-columns resembled those of scirrhus and might be indistinguishable from them. In other parts, especially in the deeper parts of the breast, the tendency was to the formation of round columns and

spherical masses of cells. The central cells of these columns sometimes broke down and tubes were formed, and when this was the exclusive formation the appearance described as adenoma was seen. These columns sometimes combined to form large spherical masses, the central cells of which liquefied, cystic cavities being then produced. The external layer of cells, both of the small tubes and of the large cavities, had a tendency to assume the columnar form, and sometimes the cells were typical examples of columnar epithelium. This columnar epithelium was the stamp of the origin in the columnar epithelium of the ducts, and, with the formation of circular cell-groups and the comparative absence of alveoli, afforded a basis for the distinction of this duct cancer from the scirrhus type or parenchymatous cancer. The author said he believed that all breast cancers could be referred to one or other of these forms, according as the original point of departure had been from the epithelium of the ducts or from the secreting epithelium of the acini, and that the nomenclature of breast tumours would be simplified by the exclusive use of some such terms as duct cancer and parenchymatous cancer. The author was not able to agree with those pathologists who made the presence or absence of a *membrana propria* the criterion of a duct or parenchymatous cancer (adenoma or scirrhus). In duct cancers he had found that newly formed cell masses might have no *membrana propria*, whilst large masses of secondary formation might have it highly developed. He had found it as a product of new growth around some cancerous masses, whilst other masses near them showed no evidence of it. It was found around cell-masses which did not seem to have been growing rapidly. Around some cell-masses in this form of cancer he had found a considerable thickness of a layer of very minute fibres, which had the optical and staining characteristics of fine elastic fibres. The layer was between the *membrana propria* and the fibrillated connective tissue, and was analogous to the layer of elastic fibres described by Henle as surrounding the large lactiferous ducts, but in extreme instances much exceeded it in extent. Its formation around masses of morbid epithelium in duct cancer the author regarded as analogous to the formation of the normal elastic layer around the healthy epithelium of the large ducts. The changes in the skin were confined to the epidermis and the papillary layer of the cutis, and the diseased area was sharply limited towards the healthy tissues; in one case the boundary being formed by a broad descending portion of epidermis, and in the other by a narrow groove on the superficial side of the *rete mucosum*. In the diseased epidermis many cells of the *rete mucosum* had disappeared, leaving holes in their place. Many of the remaining cells showed signs of disintegration both in the nucleus and cell-substance. The *rete mucosum* as a tissue was broken up into masses, between which the connexion was sometimes very slight, and in some places it only existed as a ragged remnant. In the papillary layer the bundles of connective tissue had to a large extent become disintegrated, and the space between the *rete mucosum* and the *pars reticularis* was filled with a granular substance thickly infiltrated with exudation cells. The deeper parts of the skin were healthy. Similar changes were found on the surface of the nipple, on which there still existed a ragged epithelium containing many degenerating cells. These appearances showed that the surface of the skin had been subjected to the action of a destructive influence radiating from the nipple, which prevented by its continuous action the restitution of the integrity of the *rete mucosum* and the bundles of the papillary layer, whilst the destructive effect was not sufficient to produce actual ulceration. The destruction of the deeper cells of the *rete mucosum* and of the connective tissue of the *pars papillaris* showed that the affection was not an eczema. There was no cancerous epithelium in the diseased skin area. The author believed that the evidence pointed to a slowly advancing cancerous change near the mouth of the lactiferous ducts, which at a very early stage led to irritative effects on the superficial tissues of the nipple and surrounding skin, and eventually penetrated into the substance of the mammary gland.

Dr. THIN also showed diagrams illustrating a peculiar case described in the *New York Archives of Dermatology* as a case of scleroderma, but which he regarded as a severe case of the affection of the skin which had in London been found associated with cancer of the breast. The case is reported by Dr. Foster of New York. A single woman, aged thirty-six,

noticed a fissure or abrasion of the left nipple in June, 1875, and about the same time a small swelling under the skin of the breast. The nipple continuing tender, and exuding a drop or two of blood when touched, the patient consulted Dr. Hopkins of Buffalo, who found the nipple swollen a little and rather sensitive, with an abrasion covering its top. A film would form over it for a day or two, and then come off, leaving a raw surface. At this time the breast was normal in all other respects save a small lump about the size of a chesnut, which seemed embedded in or attached to the gland at its inner border. After treatment for fourteen months by stimulating and irritating applications, the nipple was still symmetrical, but much enlarged. It had not regained its epithelium at the top, and had lost it in several places around its base. At one part of the base was a fissure extending quite into the nipple. All these surfaces had a rather dry look; some pus was secreted, but little, and that not offensive. Several months later two New York surgeons diagnosed the case as the *squirrhe en cuirasse* of Velpeau; an infiltration then began to spread to the neighbouring skin; and within a few months more the disease affected the skin of both breasts, and that over the sternum and the whole left half of the chest in front, creeping around to the scapula and the greater portion of the left arm and forearm. The proper substance of the left breast was at that time much shrunken, the nipple shortened and swollen, and surrounded by a groove of ulceration discharging a thin, scanty fluid, which was at times offensive. A month or two later papular outgrowths are noted as existing over the surface of the left breast, which progressed until the entire left breast was covered with a highly vascular granular tissue, and the nipple of that breast had entirely disappeared. When the patient died, about two years from the first appearance of disease in the nipple, the induration had spread over almost the entire trunk and both arms. During the last month of life the site of the left breast was occupied by an irregular, fungating, ulcerating mass, which had rather a scant but highly offensive discharge. Dr. Thin agreed with the members of the American Dermatological Association, who did not regard the case as one of scleroderma, but he could not agree with those who considered the induration of the skin as being directly caused by cancerous deposit—not thinking it possible that the whole trunk and both arms could be affected with cancer without ulceration. The ulceration of the left breast he considered to be due to cancer; and the infiltration of the skin he suggested, as already stated, was due to an infiltration of a similar kind to that which had been described in London as eczema.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Licentiates on December 22:—

Adams, Alexander Peers, Greenholme, Kingston-hill.
Bates, Henry Leslie, Streatham-common, S.W.
Bond, Charles John, 30, Albert-street, N.W.
Branson, Cecil Lugard Smyth, 30, Tavistock-road, W.
Crew, William Thomas, 11, Falmouth-road, S.E.
Dimmock, Henry Peers, 13, Moore-street, S.W.
Ensor, Theodore Francis, Milborne Port.
Faulkner, Joseph, 36, Darnley-road, E.
Jones, Charles Montagu Handfield, 49, Green-street, W.
Lathbury, Charles John, Breaston, Derby.
Lewis, Christopher John, 16, Park-place-villas, W.
Lewis, George Stephens, Guy's Hospital, S.E.
Lovell, Robert Haynes, St. Mary's Hospital, W.
Mort, Herbert Brownlow, Southport.
Rich, Evelyn Arthur, Winchester.
Townsend, Knowlson, 18, Broughton-place, Edinburgh.
Warrburton, Arthur, Betley.

The following candidate having passed in Medicine and Midwifery, will receive the College licence on obtaining a qualification in Surgery recognised by this College:—

McKee, Gerard Macklin Eccles, 2, Overstone-road, W.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 18:—

Cook, John William Cross, Hockesley Priory, Colchester.
Griffin, Henry Frederick, Banbury, Oxon.
Loveridge, Arthur Williams, Hammersmith.
McDonagh, James Samuel, 211, Hampstead-road, N.W.

Morris, William Albert, Caerleon, Monmouthshire.
Underhill, George, Tipton Green, Staffordshire.
Wood, Charles, High-street, Uttoxeter.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Camp, Charles Frederick, Guy's Hospital.
Honman, Andrew, Charing-cross Hospital.
Villaneuva, Francis Horton, Charing-cross Hospital.
Roberts, Thomas, London Hospital.

BIRTHS.

COLEMAN.—On December 21, at Holly Lodge, Streatham, the wife of A. Coleman, F.R.C.S., of a daughter.
FASKALLY.—On December 12, at Daventry, Northamptonshire, the wife of G. Bleek Faskally, F.R.C.S., of a son.
MILLER.—On December 19, at Percy House, Percy-circus, W.C., the wife of John Alex. Miller, M.R.C.S., of a daughter.
POWELL.—On December 19, at 15, Henrietta-street, Cavendish-square, W., the wife of Douglas Powell, M.D., F.R.C.P., of a son.
WALKER.—On November 13, at Cocanada, Madras Presidency, the wife of Surgeon G. L. Walker, M.D., Indian Medical Service, of a daughter.

MARRIAGES.

CHAPPLE—ROBERTS.—On December 16, at Carnarvon, John Torrington Chapple, Esq., to Annie Ormsby, third daughter of Watkin William Roberts, F.R.C.S., J.P., of Uxbridge-place, Carnarvon.
COSSAR—RUSSELL.—On December 18, at Edinburgh, Thomas Cossar, M.D., F.R.C.P., of East Craigs, Corstorphine, to Isabella, only daughter of the late George E. Russell, Esq., of Edinburgh.
JACKSON—WHITEHEAD.—On December 18, at Stockport, Thomas Jackson, M.D., of Whitehaven, to Hannah, daughter of the late S. Whitehead, Esq., of Preston.
THOM—YOUNG.—On December 17, at Kelly, Wemyss Bay, N.B., Robert Wilson Thom, Esq., to Eliza, third daughter of Dr. Young, F.R.S., of Kelly and Durris.

DEATHS.

BERRY, HANNAH, wife of Henry Thomas Berry, M.R.C.S., at 29, Amwell-street, E.C., on December 2, aged 59.
DEMPSTER, C. C., L.R.C.S., A.M.D., at 20, Waterloo-crescent, Dover, on December 20.
GIBSON, JOHN HAYDOCK, M.D., at York, on December 12, aged 53.
MACDONALD, JOHN, M.D., F.F.P.S., L.R.C.P., Consulting Physician to the Buenos Ayres British Hospital, at Lynedale House, Isle of Skye, on December 7.
MAFFEY, ELEANOR, at the residence of her brother, John Maffey, L.R.C.S., 95, North-parade, Bradford, Yorks, on December 6, in her 31st year.
MOBERLY, ARTHUR, M.D., killed by an engine near Burrie, Canada, W., on November 29.
TRIBE, HERMAN HENRY, M.R.C.S., on board the sailing-vessel *Parthenope*, on the voyage to Melbourne, on September 6, in his 55th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BROMPTON PROVIDENT DISPENSARY, 3, QUEEN-STREET, BROMPTON, S.W.—Medical Officer. Candidates must possess a medical and surgical qualification. Applications, with testimonials, to be sent to the Secretary on or before January 3, 1880.

HAMPSTEAD PROVIDENT DISPENSARY.—Medical Officer. Candidates must be duly qualified, and resident in the parish of Hampstead. Applications, with testimonials, to be sent to the Secretary, Mr. S. D. Roff, 57, Heath-street, Hampstead, N.W., on or before December 27.

LIVERPOOL DISPENSARIES.—Assistant Resident House-Surgeon. Candidates must be unmarried and duly qualified. Applications, with testimonials and registration certificates, to be sent to the Secretary, Leith Offices, 34, Moorfields, Liverpool, on or before January 29, 1880.

ST. BARTHOLOMEW'S HOSPITAL.—Assistant-Surgeon. Applications, with testimonials, to be sent to Mr. Henry Cross on or before January 5, 1880.

SOUTH MOLTON UNION.—Medical Officer of Health. Applications, with testimonials, to be sent to Mr. R. Louis Riccard on or before January 9, 1880.

SUNDERLAND AND BISHOPWEARMOUTH INFIRMARY.—Physician. Candidates must possess the degree of Doctor in Medicine of some University of the United Kingdom, and be registered accordingly, and are not to undertake to practise in surgery or midwifery. Applications, with testimonials, to be sent to the Secretary, John Kitts, Esq., on or before January 28, 1880.

UNIVERSITY COLLEGE, LONDON.—Professor of Medical Jurisprudence. Applications to be sent to Talfourd Ely, M.A., Secretary, on or before January 7, 1880, at the office of the College, where further information can be obtained.

THE annual report of the Registrar-General of Queensland for last year shows that the population of the colony on December 31, 1878, was 210,510 persons—127,603 males and 82,902 females. The increase of the population by immigration during the year was 6556 Europeans, against which number must be set 2136, the excess of departures over arrivals of Polynesians in the same period. The nationality of the population is given as follows:—Europeans 90½ per cent., Chinese 7 per cent., and Polynesians 2½ per cent.

VILLAGE GEOGRAPHY IN FRANCE.—The Ministry of the Interior is at present engaged in examining a proposal which we cannot praise too much. It is proposed to place in every French commune a stone on which the latitude and longitude of the place is inscribed, as well as the hydrographic basin to which the locality belongs.—*Revue Scientifique*, November 29.

PROPOSED NEW SANITARY DISTRICT OF WESTERN EDMONTON.—The inhabitants of Western Edmonton have brought before the President of the Local Government Board, by means of a deputation, their desire to be detached from the district of Edmonton proper, and to be formed into a new sanitary district, consisting of Southgate, Bowes, New Southgate, and Winchmore. Mr. Littler, Q.C., their spokesman, contended at great length that the proposed change was absolutely necessary on many grounds, and especially in relation to sanitary matters, which were at present neglected by the Local Board in a manner almost incredible. It was not too much to say that the whole parish was grievously neglected; but the proposed new district got the worst of the neglect, and it was principally upon this account that they wished to be placed in a position in which they could legally act for themselves. Mr. Slater-Booth, in his reply, said he had every disposition to view with sympathy the grievances under which the memorialists evidently felt that they laboured. He would carefully examine the whole position of affairs in the Edmonton district, and if it were found advisable to sanction the formation of a new district he would not be deterred by anything in the shape of want of precedent in coming to that decision.

NOTES, QUERIES, AND REPLIES.

We that questioneth much shall learn much.—Bacon.

Metropolitan Hospital Sunday Fund.—The next collection of this Fund is fixed for June 13, 1880.

Social Position and "Necessaries."—It is stated that the County Court Judge at Exeter has decided that a set of artificial teeth were not "necessaries" for a farmer's wife, and nonsuited a dentist who had supplied them in the absence of any express authority from the husband.

Trained Nurses.—A meeting has been held at the Town Hall, Brentwood, in aid of the St. Albans Diocesan Institution for Trained Nurses, under the presidency of the Bishop of St. Albans, at which resolutions approving of the movement were passed, and a collection was made on its behalf.

Food Reform: Vegetarianism.—Recently twenty members of the Scottish Food Reform Society sat down to a repast consisting of six courses, namely, lentil and barley soup, haricot-bean pies, haricot-bean omelettes with sauce, hominy pudding, pearl-meal pudding, and tapioca and apples—which, exclusive of cooking, cost at the rate of 3½d. per head.

B., Army.—Yes, Professor Flower was formerly a surgeon in the Army and served with his regiment in the Crimea, for which of course he received a medal; his predecessor as Conservator of the Museum of the College of Surgeons, Professor Owen, served in the sister service, the Royal Navy, as a midshipman.

Anti-Vivisection: Germany.—At a meeting held in Leipzig lately, a Herr von Weber condemned the medical profession as guilty of gross cruelty. In these days, he declared, doctors regarded their patients rather as "material for experiments" than as persons to be helped, so that hospitals had been virtually transformed into laboratories. The only effect, however, of this denunciation was that three cheers were almost unanimously given for a distinguished physician whom the indignant anti-vivisectionist vehemently attacked.

Mr. Hulke wishes to make the following correction in the report of his remarks at the Clinical Society, published in our last week's issue:—"I shall feel obliged by your correcting in your next impression an omission of a negative after the word 'as' in line thirty-four. I am there made to say that '6 only out of 86 cases of hip disease occurring amongst 313 cases of joint disease under my care in the Middlesex Hospital were instances of morbus coxæ.' My remarks were actually that only 6 out of the 86 cases were *not* morbus coxæ."

Citizen, W.C.—When the Artisans' Dwellings Act was passed, in 1875, the object of the measure was, not to provide dwellings for artisans, but to provide sites for such dwellings, and to clear certain overcrowded areas which were plague-spots in the midst of a dense population. That object is in course of being attained. No doubt, to get rid of these centres of disease and infection, has involved considerable burdens upon the ratepayers, but it was a great saying of Napoleon that "omelettes could not be made without breaking eggs."

Condign Punishment for Exposing for Sale Diseased Meat.—A butcher at Leeds has been sent to prison for a month, without the option of a fine, for exposing for sale a cow which was diseased and quite unfit for human food.

Z., Warwickshire.—The Public Health Act enables all urban sanitary authorities to provide slaughter-houses, and to make by-laws for their management; and as regards private slaughter-houses, urban sanitary authorities are empowered by the same Act to make regulations for the licensing, registering, and inspection of such slaughter-houses, and for keeping the same in a proper sanitary condition. The Local Government Board have issued a series of model by-laws for the regulation of slaughter-houses, which have been adopted in numerous instances.

An Example to be Imitated.—A commendable instance of the utilisation of time and opportunities to purposes of philanthropy is worthily shown in the recent presentation to the Governors of St. Bartholomew's Hospital, as a Christmas gift, by Lady Waterlow, of six dozen of warm "Nightingale" jackets for men and women, for the use of the patients when sitting up in bed in the wards. These jackets were all made by her ladyship and the members of her family. By a similar gift last year nearly one-third of the patients are now provided with these comfortable articles.

COMMUNICATIONS have been received from—

Mr. J. W. HULKE, London; THE SECRETARY OF THE ROYAL POLYTECHNIC INSTITUTION; Mr. A. WYNTER BLYTH, London; MESSRS. LETTS, SON, and Co. (Limited), London; THE SECRETARY OF THE CRYSTAL PALACE; Dr. W. C. LAKE, Teignmouth; THE REGISTRAR OF APOTHECARIES' HALL, London; THE DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT; Mr. JOHN BELLAMY, Local Government Board; Dr. B. NICHOLSON, Shepherd's-bush; Mr. HENRY C. BURDETT, Greenwich; MESSRS. ARNOLD and SONS, London; MESSRS. JOHN RICHARDSON and Co., Leicester; THE EDITOR OF "IRON"; Mr. F. CHURCHILL, London; Dr. A. F. JACOB, Dublin; Dr. ROBERT PERRY, Glasgow; ROYAL COLLEGE OF PHYSICIANS, London; Mr. J. CHATTO, London.

BOOKS AND PAMPHLETS RECEIVED—

Guide Pratique de la Chèvre-Nourrice—The Influence of Colloids upon Crystalline Form and Cohesion, by William Miller Ord, M.D.—Loss of Weight, Blood-Spitting, and Lung Disease, by Dr. Dobell (second edition)—The Chemists' Aërated and Mineral Waters Association List and Circular—On the Brain, by Alex. Robertson, M.D., F.F.P.S.G.—Observations on Carcinoma, by Dr. T. E. Satterthwaite—The Application of Magnetism—The Past, Present, and Future of the Indian Medical Service, by a Surgeon-Major—New Truths in Physiology, by Edwin Wooton, F.S.S.—Patents and Patentees, vol. x.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Louisville Medical News—Nature—National Board of Health Bulletin—Revue Médicale—The Girl's Own Paper—Weekly return of Births, Marriages, and Deaths—Students' Journal and Hospital Gazette—Guy's Hospital Gazette—American Bookseller—Indian Herald—Centralblatt für Gynäkologie—Detroit Lancet—Supplement to the National Board of Health Bulletin—Philadelphia Medical Times—New York Herald.

APPOINTMENTS FOR THE WEEK.

December 27. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

29. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

30. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m. ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, "On Water and Air."

31. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

January 1. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

HARVEIAN SOCIETY, 3½ p.m. Anniversary. Election of Officers; President's Address; *Conversazione*.

ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, "On Water and Air."

2. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

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